



## **Preliminary Conference Program**

### **11th i-Rec Conference 2025:**

**(in)formalities: Understanding different forms of agency in disaster risk reduction, climate action, and reconstruction**

**May 26, 27, 28 and 29, 2025**

**Santiago and Valparaíso, Chile**



The 11th i-Rec Conference focuses on three key areas: disaster risk reduction, climate action and post-disaster reconstruction. Entitled “(in)formalities”, this edition seeks to explore the relationships between top-down and bottom-up actions, and how “formality” and “informality” influence decision-making processes, governance structures and institutions. The role of citizens, civil society groups and communities in risk reduction, climate action and reconstruction will be addressed.

The event will include keynote lectures, paper presentations, panel discussions and a field visit to an informal settlement in Viña del Mar, affected by the 2024 wildfires. Chile, a country highly exposed to natural disasters, will be the main context to discuss how informal initiatives can complement formal reconstruction plans. Through these exchanges, answers will be sought to key questions about the integration of informal initiatives into official projects and policies, and the fundamental role of citizens in post-disaster recovery.



**Date: May 26, 2025**

**Venue: Campus Lo Contador, Pontificia Universidad Católica de Chile, Santiago.**

**18:00 - 20:30 –Welcome Reception**

*Magdalena Vicuña, Dean of the Facultad de Arquitectura, Diseño y Estudios Urbanos,  
Pontificia Universidad Católica de Chile*



**Date: May 27, 2025**

**Venue: T. Building Auditorium, Universidad Técnica Federico Santa María, Valparaíso**

**08:00 – Meeting at Campus Lo Contador and trip to Valparaíso. (Address: El Comendador 1916, 7520267 Providencia, Región Metropolitana)**

**10:45 – 11:15 - Registration / Universidad Técnica Federico Santa María, Valparaíso**

**11:15 – 11:30 - Welcome Remarks**

- **Dr. Juan Ignacio Yuz Eissmann**, Rector of the Universidad Técnica Federico Santa María.
- **Jorge León**, Associate Professor, Universidad Técnica Federico Santa María.

**11:30 - 12:45 - Keynote Speech**

- **Macarena Carolina Ripamonti Serrano**, Mayor of Viña del Mar.  
**Presentation;** *“Del Top-down al Bottom-up: desafíos y aprendizajes del ciclo de emergencias en Viña del Mar”/ ‘From Top-down to Bottom-up: challenges and lessons learned from the emergency cycle in Viña del Mar’*

**12:30 - 13:45 – Lunch**

**13:45 - 15:45 - Field Visit (“Villa Independencia”, Viña del Mar)**

**15:45 – 17:30 - Field Visit (“El Olivar”, Viña del Mar)**

**17:30 – 18:00 - Coffee Break**

**18:00 - Closing and Return to Santiago**



**Date: May 28, 2025**

**Venue: Campus Lo Contador, Pontificia Universidad Católica de Chile, Santiago**

**08:45 - 09:00 – Registration**

**09:00 – 9:15**

- Welcome remarks, **Dr. Juan Carlos de la Llera**, Rector of the Pontificia Universidad Católica de Chile

**09:15 - 10:45 - Keynote Speech**

- **José Sergio Palencia Jiménez**, Dr. Ingeniero de Caminos, Canales y Puertos. Universitat Politècnica de València.  
**Presentation:** “Planificación Territorial En Zonas Inundables. Nuevas Realidades”/  
‘Territorial Planning In Flood Zones. New Realities’.

**10:45 - 11:15 - Coffee Break**

**11:15 - 12:35 - Research Presentations, Parallel Sessions I**

**Room 1: Resilient Futures: Risk, Community, and Climate Response/  
Futuros Resilientes: Riesgo, Comunidad y Respuesta Climática**

**11:15- 11:35**

Title: Classifying disaster risk creation outcomes: applications for post-disaster housing reconstruction

Authors: Muir, Grace; Opdyke, Aaron; Idris, Yunita

Abstract:

Disaster risk creation is understood as the process through which risk is constructed (by human actors) in relation to (socio-)natural hazards. Post-disaster settings have been highlighted as sites of risk creation, with (e.g.) houses rebuilt on hazard-prone land without adequate risk mitigating measures. Yet, no explicit guidelines exist for measuring rebuilding efforts’ contributions to the generation of disaster risk. This leaves a critical gap wherein contributions to risk creation are left unobserved and subsequently unaccounted for in literature and practice. The principal output of this research is a methodological approach for both practitioners and scholars to evaluate housing reconstruction projects’ risk creation outcomes. We considered typical baseline assessments problematic when attempting to measure risk creation contributions, so opted for an approach which generates a new baseline against which to compare the observed risk state. The proposed approach uses counterfactual imaginaries to weigh reconstruction projects’ contributions to the generation of disaster risk. We show how co-constructing alternate reconstruction outcomes to envisage a ‘lowest possible’ alternate risk state can assist in such analysis and provide a suitable baseline against which risk creation contributions can be weighed. The paper applies the proposed methodology to select cases in Indonesia to demonstrate its empirical operability.



**11:35 – 11:55**

**11:55 – 12:15**

Title: Participatory design of urban green infrastructure in public spaces as adaptation strategies to climate change

Authors: Lopez, Oswaldo; López, Adriana.

Abstract:

Adaptability to climate change, community management and civic engagement is promoted for all levels, groups, and ages. From a perspective of sociological intervention, tactical urbanism and participatory action, bottom-up methodologies are used to transform public spaces using low-cost green infrastructure for CC adaptation to promote social transformation through the process. Thus, community organization and programmes of action can be used to help govern to take optimal decisions and respond in a timely manner to the daily challenges posed to the environment.

**12.15 – 12:35**

Title: Building Resilience in New Zealand's Construction Sector: Merging Technology and Indigenous Values

Authors: Potangaroa, Regan; Wilkinson, Suzanne; Elkhidir, ElRasheid; Mitansha, Mitansha; Tepania, Marama; Mulligan, Bob; Imtiaz, Athar.

Abstract:

Advanced tools like Databots, which provide real-time insights into risks such as material shortages and labour gaps, have become vital for navigating uncertainty and ensuring timely, efficient project delivery.

**12:35 – 12:55**

Title: Slum upgrading and Incremental Housing in Practice- learning from the masters, site and services projects, and self-help construction towards architecture and urbanism for climate change.

Authors: Martins, Afonso Nuno

Abstract:

This research fills a critical gap in architecture and urbanism by proposing a community-centered design framework that merges principles from prominent architectural and urban design projects with knowledge from communities facing disaster and housing challenges. Revisiting selected iconic housing complexes based on incremental housing ideas —such as Siza's Malagueira, Aravena's Villa Verde, Doshi's Aranya, and São Paulo's World Bank site-and-service projects—provides insights for urban renewal in informal settings. These insights aim to strengthen incremental housing practices, integrating self-help and architecture-based approaches with climate adaptation strategies like natural light, ventilation, open spaces, and greenery, echoing early modernist principles adopted by Le Corbusier in Chandigarh. Following systematic observation of site-and-service models, the study suggests design



guidelines for India, Portugal, and Brazil, involving relevant stakeholders and facilitating inclusive redevelopment through resident-focused on-site discussions. By synthesizing practical design solutions from local, professional, and academic sources, this research seeks to establish consensus on incremental housing and slum upgrading strategies, empowering residents to actively enhance their living spaces and increase climate resilience in low-income urban areas. Ultimately, the project aims to inform local leaders and municipal offices, potentially shaping future social housing initiatives and policies.

**Room 2: Inclusive Recovery: Informality, Infrastructure, and Innovation/  
Recuperación Inclusiva: Informalidad, Infraestructura e Innovación**

**11:15- 11:35**

Title: Procesos Comunitarios en la Construcción de Viviendas de Reasentamiento para la Población Desplazada. Mejora de la Capacidad de Prevención y Respuesta de las Comunidades.

Authors: Muñiz, Patricia.

Abstract:

La construcción rápida y eficiente de vivienda, con el fin de abordar las necesidades urgentes de las personas desplazadas por conflictos o consecuencias derivadas del cambio climático en África, es el objetivo de la investigación que se presenta. Con un enfoque basado en la participación de la población meta, en particular mujeres y niños, combinado con el uso de recursos locales y materiales sostenibles, la metodología propuesta tiene como objetivo superar algunos de los desafíos principales de proporcionar refugio en crisis complejas. Más concretamente, el enfoque propuesto integra tecnologías de autoconstrucción y autosuficiencia, consideraciones culturales y participación comunitaria colaborativa para crear soluciones de vivienda de transición y reasentamiento resilientes y adaptadas a las necesidades de la población local.

**11:35 – 11:55**

Title: Formalizing the Informal: Narrativization of Building Amnesties in Türkiye

Authors: Özdoğan Fatma; Lizarralde, G ; Tercan, B.; Johnson, C.; Dikmen, N.; Herrera, A.

Abstract:

This study explores Türkiye's decades-long use of building amnesties as a response to informal housing growth driven by rapid urbanization. It offers a new perspective by analyzing how the government frames these amnesties not simply as regulatory adjustments but as acts of "forgiveness" or privileges. This framing creates a public expectation that illegal constructions will ultimately be legalized, highlighting how amnesties shift power dynamics by consolidating state authority and positioning the government as benevolent.

**11:55 – 12:15**

Title: Assessing outcomes and value in coastal infrastructure projects: a review of indicators across nature-based solutions and grey infrastructure



Authors: Burkhardt, Annika; Opdyke, Aaron; Naderpajouh, Nader.

**Abstract:**

There is a growing body of literature advocating for nature-based solutions over grey coastal infrastructure to protect populations along coastlines. However, this debate is stifled by a lack of data and differing use of indicators to measure and compare outcomes of different coastal infrastructure projects. This research reviews commonly used indicators to measure the outcomes and compares their usage across the different infrastructure types.

**12.15 – 12:35**

Title: The Role of Data Analytics in Disaster Recovery: The Case of Databots for Construction Planning

Authors: Potangaroa, Regan; Imtiaz, Athar.

**Abstract:**

By analysing the role of databots in disaster planning and mitigation, this paper offers insights into how emerging technologies can complement traditional recovery efforts.

**12:35 – 12:55**

Title: Revisiting the meaning of community in post disaster self-recovery for incremental housing reconstruction

Authors: Carrasco, Sandra; Ochiai, Chiho; O'Brien David

**Abstract:**

The sense of community as is widely recognised as a critical factor in disaster prevention and recovery, with strong social networks enabling faster recovery and minimising future risks. In the context of housing reconstruction, the concept of self-recovery has been gaining momentum among humanitarian organisations, highlighting people's capacities as co-producers of their housing that empower them as proactive actors in building their own houses. However, despite housing recovery often begins as a collective project with community-oriented objectives, the shifting focus towards individual or family priorities during the process can create tensions that undermine collective goals and community cohesion.

**12:55 - 14:00 – Lunch**

**14:00 -15:20 - Research Presentations, Parallel Sessions II**

**Room 1: *Learning and Adapting: Games, Culture, and Resilient Housing/ Aprender y Adaptar: Juegos, Cultura y Vivienda Resiliente***

**14:00- 14:20**

Title: Housing reconstruction as cultural adaptation to multi-hazard events: Case study insights from Indigenous households in Batanes, Philippines





Authors: Hadlos, Arvin; Opdyke, Aaron.

**Abstract:**

Few studies have examined how Indigenous households adapt their local construction practices in multi-hazard settings which can inform insights into local building practices useful to support housing reconstruction. Our work among the Ivatan Indigenous households in Batanes revealed that the decision and transition to build different housing typologies in post-disaster settings are heavily influenced by risk perceptions shaped by recent disaster events, aid flow and financial status, and regulations that impact access to local building materials. We posit that amid such pressures and influences lie the inherent coping mechanism of households to continually innovate in preparation for disturbances such as disasters. This was demonstrated in our case study through the various housing reconstruction pathways explored by households embodied in the emergent post-earthquake housing typologies which displaced the vernacular architecture in the area.

**14:20 – 14:40**

**Title:** Emergency Action Framework: A Serious Game for Enhancing Disaster Preparedness and Management Skills

**Authors:** Naeemi, Peyman; Taghimolla, Ali; Aarabi, Mahbod; Asgary, Ali.

**Abstract:**

The Emergency Action Framework introduces a novel approach to disaster and emergency management education by integrating the four phases—Mitigation, Preparedness, Response, and Recovery—into an engaging, scenario-based serious game. Unlike traditional training methods, the game uses real-world data and hypothetical future scenarios to immerse players in decision-making processes under dynamic, evolving conditions.

**14:40– 15:00**

**Title:** Reviewing Earthquake Vulnerability Drivers in Informal Housing Construction

**Authors:** Sabaruliman, Angga Arief Gumilang, Opdyke, Aaron; Zhang, Hao.

**Abstract:**

This study classifies earthquake-resistant housing system characteristics and features into a global framework, focusing on non-engineered construction. While past studies have accumulated rich case-specific knowledge, there remains gaps in cross-national comparisons of what leads to housing vulnerability.

**15.00 – 15:20**

**Title:** Designing an Earthquake Museum for the 2023 Kahramanmaraş Earthquakes with AI-based Image Generation: Memory Preservation and Disaster Awareness.

**Authors:** Akdede, Nil; Demiröz, Melek; Özyaydın, Özay.

**Abstract:**



Natural hazard disaster museums play a critical role in disaster risk reduction by preserving collective memory and promoting public awareness. Although several successful examples exist, the architectural design of such institutions remains a complex and multifaceted challenge. This study focuses on the February 6, 2023, Kahramanmaraş earthquakes in Türkiye and explores the potential design of an earthquake museum dedicated to this event, utilizing AI-based image generation tools as part of the conceptual design process. A five-step methodology was adopted. First, natural hazard disaster museums worldwide—including those in Türkiye—were analyzed to identify best practices. Second, a comprehensive inventory of interior and open-air museum spaces and their associated functions was compiled based on these precedents. Third, contextual insights—derived from field visits to the earthquake-affected region and visual documentation of the impacted cities—were collected. In the fourth step, conceptual images were generated using AI-based image generation tools, combining the predetermined spatial concepts with the collected contextual information. Finally, the proposed designs were evaluated and refined according to spatial and functional criteria relevant to earthquake museum typologies. This research highlights the potential of artificial intelligence to support and enrich early-stage architectural design, particularly in the domains of memorialization, education, and disaster awareness.

**Room 2: *Framing Recovery and Climate Adaptation: Knowledge, Governance, and Community Roles / Enmarcando la Recuperación y la Adaptación Climática: Conocimiento, Gobernanza y Comunidad.***

**14:00- 14:20**

Title: Leveraging RedR Post-Deployment Reports to Inform Effective Disaster Recovery Frameworks

Authors: Potangaroa, Regan; Hubbard, Francis.

Abstract:

These reports, which detail first hand experiences and outcomes from RedR's deployments across various disaster zones, offer a unique perspective on the practical challenges and successes encountered by recovery practitioners.

**14:20 – 14:40**

Title: Climate governance and human rights in Brazilian cities

Authors: Barbi-Seleguim, Fabiana; Lemos, Patrícia; Iglecias, Faga.

Abstract:

The analysis of the project "Resilient Municipalities in São Paulo" showed five relevant aspects for climate governance that can support the protection and promotion of human rights in cities: multi-level, multi-agent, multi-knowledge, multi-sector and multidimensional. 10 out of the 22 adaptation plans in Brazilian cities were developed within the scope of the analyzed project and one regional plan, first in the country. In addition to the quantitative contribution, the project



brought guidelines aligned with climate justice, with a focus on human rights and gender issues and participation and equity in the adaptation planning process. The project has the potential to be replicated in the national context.

#### 14:40– 15:00

Title: Climate change or development issue? How can a community prepare for a wildfire?

Authors: Ochiai, Chiho.

#### Abstract:

Over the past 10 years, the number of wildfire outbreaks has increased almost every year, and the effects of climate change have been brought into focus. On the other hand, many rural cities hit by these fires have experienced major housing development over the past 100 years, and the environment has changed significantly. This paper describes the changes in the living environment from natural grassland to populated residential areas, which are the main causes of spreading wildfire damage. Also, the study highlights how residents in each community participate in community disaster planning to prepare for future disasters. This study illustrates the importance of understanding the community's historical background and its development and the participation of the local community in disaster planning.

#### 15.00 – 15:20

Title: Narrativas y representaciones del desastre de inundación en Chile: Un análisis a partir de las teorías de Humberto Maturana

Authors: Herrera, Alejandra; Lizarralde, Gonzalo.

#### Abstract:

Dieciséis puntos críticos de la gestión del agua en Valparaíso se encuentran aguas arriba de avenidas, como Argentina, una arteria vial principal, y otras vías importantes como Francia y Carampangue. Desde mediados del siglo XIX se construyeron en estos sitios más de dieciocho estructuras de soterramiento de cauces, que constituyen más de 40 kilómetros de infraestructuras en hormigón, albañilería y mampostería. Estas intervenciones urbanas, que se extienden desde 1860 hasta hoy, revelan el predominio en la acción pública de lo que Humberto Maturana llama el “pensamiento-lineal-causal” por sobre el “analógico-sistémico”. Maturana considera que el equilibrio entre ambos enfoques es necesario para lograr una relación sana entre los habitantes, el medio construido y la naturaleza.

### 15:30 – 16:50 - Research Presentations, Parallel Sessions III

**Room 1: Community Resilience and Risk Governance: Local Knowledge, Planning, and Post Disaster Strategies/ Resiliencia Comunitaria y Gobernanza del Riesgo: Conocimiento Local, Planificación y Estrategias Post-Desastre**

#### 15:30- 15:50



Title: Informalities, adaptation and governance: expressions of local agency in risk reduction strategies in Panorama, Colombia

Authors: Lajoie, Steffen.

Abstract:

This project explored adaptation through the perspectives of inhabitants of Panorama, an informal settlement in the municipality of Yumbo, Valle del Cauca, Colombia to inform adaptation policy and practice.

**15:50 – 16:10**

Title: Dialectics in Post-Disaster Sheltering: The case of the 2017 Sarpol-é-Zahab earthquake in Iran

Authors: Vala Vahidi Motlagh, Seyed; Fayazi, Mahmood.

Abstract:

To achieve a practical quantitative framework, it analyzes indicators based on the principles of Tectonics, Use, and Site, utilizing dialectical thinking in a bipolar manner. The evaluation is conducted using the Analytical Hierarchy Process (AHP) by post-disaster specialists. The analytical framework is employed to evaluate and compare different types of shelters provided after the 2017 Sarpol-é-Zahab earthquake in Iran. The shelters are categorized into four groups: prefabricated, on-site assembled, units with additional spaces made of recycled materials, and units with additional spaces made of masonry materials. To achieve this classification, field studies and questionnaires collected from survivors have been systematically categorized and analyzed within a designed matrix. The results indicate that shelters with no additional space are more efficient than other alternatives. Generally, shelters that can undergo structural upgrades in an incremental process, made from appropriate materials and components that allow for replacement, restoration, and future reuse, along with a flexible and modular design, can accommodate a range of activities throughout the day. This adaptability will enhance shelter efficiency for transitioning from temporary to permanent housing recovery phases.

**16:10– 16:30**

Title: Who Plans Disaster Research Needs? Understanding and Improving Science Strategies for Wildfire

Authors: Kennedy, Eric.

Abstract:

To the best of our knowledge, this project represents the first multi-national effort to explore research priorities in wildfire management, as well as the most diverse effort ever undertaken in terms of range of participants. Through interviewing 135 stakeholders from three countries, we found that not only were there deep disagreements about what topics were the most important for management, but also about who should be making these plans and how. Our project makes novel contributions about what should be prioritized, including both topics areas (e.g. health



impacts; water impacts) and structural challenges (e.g., problematic incentive structures in research).

**16.30 – 16:50**

**Room 2: *Urban Risk, Informality, and Institutional Dynamics in Post-Disaster Recovery/*  
*Riesgo Urbano, Informalidad y Dinámicas Institucionales en la Recuperación Post-Desastre***

**15:30- 15:50**

Title: Disasters and Urbanization: Risk Configurations and Uneven Spatial Development in Chile

Authors: Fuentealba, Ricardo.

**Abstract:**

As part of the ongoing climate crisis, local and regional governments are developing multiple sustainability and climate-related initiatives, with new roles for governments, residents and local organizations. While mainstream policies see cities as sites for saving the planet, urbanization and territorial development remain as contested issues, not only given the uneven actual capacities to manage risks but also how they relate to risk creation processes.

**15:50 – 16:10**

Title: Post-forest fire reconstruction and implementation of risk reduction measures in settlements in Chile

Authors: Gonzalez-Mathiesen, Constanza; Aravena, Natalia; Rosales Catalina.

**Abstract:**

The results show that the reconstruction processes of wildfire-urban interface areas in Chile have implemented physical measures to manage risk; however, these processes have not always been conducive to creating settlements that manage wildfire risk comprehensively in the long term. It stands out that the measures implemented are sometimes incomplete or poorly coordinated, over-relying on a few measures. Moreover, there is a tendency to densify the areas affected due to the provision of on-site housing solutions for affected multi-family dwellings as well as to new families settling in the area which results in the establishment of more dwellings exposed to wildfires. Furthermore, the poor or non-existent maintenance of the physical measures for wildfire risk management implemented limits their effectiveness long-term. In particular, in contexts of informality, the efforts to manage wildfire risk are less effective. In these contexts, rapid self-construction and informal practices imply a greater re-establishment of vulnerable settlements mainly due to self-built housing reconstructions and the modification and extension of housing, promoting risk-prone behaviors.



**16:10– 16:30**

Title: Examining whether shelter self-recovery leads to disaster risk reduction

Authors: Ahmed, Iftekhar.

Abstract:

Shelter-self recovery (SSR) signifies communities recovering after a disaster by themselves, supplemented with assistance from humanitarian agencies. It involves support for building homes with materials, money and training, essentially supporting informality. There are positive aspects of SSR including the opportunity for community engagement, participation, and capacity building. SSR is conceived as a recovery solution in the context of diminishing global humanitarian funding. An aim of SSR is 'building-back-better' (BBB), where rebuilt dwellings are expected to be more resilient to local hazards. Provision of support for stronger and durable construction is combined with initiatives to build local construction capacity. However, a closer examination reveals challenges, which are contextual and perhaps inherent in the SSR concept. Humanitarian agencies focus primarily on local and natural building materials, however, there is a strong aspiration to build with 'modern' materials, as was evident in Vanuatu. Whether structures built with natural materials can withstand the impact of ever-increasing and stronger hazards, is a key question. In the Philippines, despite some achievements, adequate construction skills were lacking, and people were actually "building back worse". Thus, future SSR prospects and potential for improvement with regard to BBB requires further research, maintaining the central paradigm of informality.

**16.30 – 16:50**

Title: How do disaster victims relate to reconstruction institutions? Understanding the legibility of urban bureaucracies of disaster in Mexico City.

Authors: Ruiz-Rivera, Naxhelli.

Abstract:

Top-down disaster reconstructions in Global South cities produce multiple interfaces of friction and conflict. The emergent policy-making process that the disaster involves, and the complexity of urban bureaucracies create a political arena whose resolution influences the fit and quality of the pos-disaster intervention. Mexico City 2017 earthquake disaster (known as 19S) has not been an exception and constitutes a critical example of the difficulties of top-down interventions to deliver timely and effective recovery outcomes.

**16:40 - 17:00 - Coffee Break**

**17:30 - 18:00 - Closing of the Day**

**Date: May 29, 2025**

**Venue: Campus Lo Contador, Pontificia Universidad Católica de Chile, Santiago**

**08:30 - 09:00 - Registration**



## 09:00 - 10:30 - Keynote Speech

- **Sergio Baeriswyl**, Academic of the Department of Planning and Urban Design. University of Bío-Bío.

**Presentation:** *“Resiliencia urbana, una aproximación basada en la experiencia de reconstrucción del 27F/2010 / Urban resilience, an approach based on the reconstruction experience of 27F/201”.*

## 10:30 - 11:00 - Coffee Break

## 11:15 – 12:35 - Research Presentations, Parallel Sessions IV

**Room 1: Participatory Approaches and Governance Challenges in Climate Adaptation and Post-Fire Recovery/ Enfoques Participativos y Desafíos de Gobernanza en la Adaptación Climática y la Reconstrucción Post-Incendio.**

**11:15- 11:35**

Title: Evolución Comparada de Incendios Forestales en Argentina y Chile: Dos Décadas de Transformaciones

Authors: Jensen, Magdalena; Franco, Guadalupe.

Abstract:

La investigación aporta una perspectiva única al comparar longitudinalmente los patrones de incendios forestales entre Argentina y Chile, revelando dinámicas territoriales complejas.

**11:35 – 11:55**

Title: Contributions of Popular Technical Advice to Territorial Risk Management in Salvador, Brazil

Authors: Gusmão, Luísa; Hobeica, Liliane; Oliveira, Ana Clara.

Abstract:

The field of Popular Technical Advice in Brazil is based on the national law on Technical Assistance and Support for Social Housing (ATHIS), which guarantees the access of low-income population to free public technical assistance in architecture and urban planning. Although this law has been in place since 2008, housing deficit is still a serious issue in Brazil. To overcome this, independent organizations and researchers have proposed alternative paths and methodologies for working in this field.

**11:55 – 12:15**

Title: Planning for climate-change adaptation in Salvador, Brazil: do nature-based solutions fit in an informal settlement?

Authors: Hobeica, Liliane, Espinheira, Lara; Reis, Sofia; Gusmão, Luisa; Oliveira, Ana Clara.





**Abstract:**

This research analyzes the experience of developing a preliminary project for using NbS as a DRR and CCA strategy in Vila Mar, a low-income community in Salvador, an initiative being developed by the municipality since 2022 with the financial support of Cities Finance Facility (CFF). The project for this landslide- and flood-prone community aims to be a pilot experience to be replicated in other low-income areas, which represent about 20% of Salvador's territory and half of its population. This intervention outlines a possible path for structuring adaptation projects in the Global South. Rather than focusing primarily on greenery, the project seeks a transformative adaptation, which encompasses investment on basic needs (housing, sanitation, health, education). The work developed has included several technical inputs, namely hydraulic modelling and cost-benefit analysis, but missed to have the community on board due to political reasons. This highlights the gap between the official equity-and-inclusion discourse and the actual practice. The main challenges throughout the project development include curtailing induced vulnerability, ensuring true public participation, keeping governmental buy-in, while changing status-quo procedures and mentalities. Governance appears as a fundamental topic to guarantee the project's comprehensive vision of transforming the community through NbS's benefits considering co-creation and co-management.

**12.15 – 12:35**

**Title:** The muddling through of reconstruction: community agency v/s institutionality in the deadliest fire in Chile's history

**Authors:** Vicuña, Magdalena; León, Jorge; Martínez, Carolina

**Abstract:**

The growing threat of forest-urban interface fires poses a climate threat globally, as these fires, intensified by the ongoing climate crisis, exhibit heightened frequency, greater intensity, and broader impact. Chile has witnessed a concerning surge in the scale of this threat over recent decades. The forest-urban interface mega-fires of February 2024, affected 8,188 households and 21,229 people in the Valparaíso Metropolitan Area. Due to the scope and severity of the damage, this has been classified as an event of metropolitan scale and the most serious urban fire in the history of the country, with the unfortunate figure of 135 deaths.

**Room 2: *Post-Disaster Housing, Risk Governance, and Transformative Recovery / Vivienda Post-Desastre, Gobernanza del Riesgo y Recuperación Transformadora.***

**11:15- 11:35**

**Title:** Evaluación de requisitos de sostenibilidad en viviendas temporales en los municipios de Estrela y Cruzeiro do Sul – RS – Brasil.

**Authors:** Ribeiro, Bibiana; Maximo, Gabriela; Librelotto, Lisiane.

**Abstract:**





El año 2024 estuvo marcado por crisis sociales y ambientales, como conflictos y guerras en varios países y eventos climáticos como inundaciones en el estado de Rio Grande do Sul en Brasil. En respuesta a estas adversidades, muchas personas se ven obligadas a abandonar sus hogares y buscar refugio, a menudo sin perspectivas de regreso. En este escenario, la vivienda temporal se convierte en una medida esencial para el restablecimiento de estas personas, ayudando en la recuperación física y psicológica de los involucrados, ofreciendo al menos dignidad y bienestar a las poblaciones afectadas. Sin embargo, se observa comúnmente que los albergues proporcionados no consideran las características culturales y sociales de las personas impactadas, ni hacen un uso eficiente de los materiales locales y la mano de obra disponible, elementos cruciales para la sostenibilidad social, económica y ambiental.

**11:35 – 11:55**

Title: Gestión del Riesgo de Desastres en el Parque Nacional Rapa Nui, dilemas y desafíos

Authors: Gonzalez-Muzzio, Claudia; Ortiz, Stephanie; Marchant, Daniela; Rozas, Claudio.

Abstract:

El Parque Nacional Rapa Nui (PNRN) enfrenta crecientes riesgos derivados tanto de las amenazas naturales y antrópicas presentes como de las vulnerabilidades de los elementos patrimoniales, vulnerabilidades sociales e institucionales. Entre las amenazas más relevantes se encuentran los incendios, la erosión costera, los tsunamis y diversos fenómenos hidrometeorológicos. Asimismo, existen importantes presiones antrópicas, como la ocupación irregular del territorio adyacente al parque y algunas secciones de este, el aumento del turismo y la interacción con actividades productivas que afectan el patrimonio como la agricultura y la ganadería.

**11:55 – 12:15**

Title: Satisfacción residencial posrelocalización de asentamientos informales y tipología habitacional de la vivienda social

Authors: Marín-Villegas, Juan Carlos.

Abstract:

De acuerdo con el marco teórico, se hipotetizaron niveles de satisfacción con la vivienda, el barrio, los vecinos y el entorno residencial en general, significativamente menores en las viviendas multifamiliares que en las unifamiliares, debido a mayores déficits percibidos en la seguridad, las relaciones sociales, los gastos asociados a la vivienda, los atributos espaciales y el confort ambiental.

**12:15 – 12:35**

Title: From Post-Disaster Recovery to Systemic Transformation: Climate-Centered Pathways Explored through Case Studies in Ukraine, Spain, Italy, Türkiye, and Morocco

Authors: Udoviyk, Oksana; Soloviy, Vitaliy; Nahiduzzaman, Kh Md; Özdoğan, Fatma; Maglione, Andrés; Pennino, Stella.

**Abstract:**

This research advances the discourse on disaster recovery by proposing the Transformative Recovery Framework, which integrates concepts from sustainability transitions, transformative change, and regenerative economies into disaster risk reduction (DRR). The novelty lies in extending the Build Back Better (BBB) paradigm, moving beyond resilience to emphasize systemic transformation, climate mitigation, and adaptation. By focusing on "better" in terms of sustainability and equity, the framework bridges the gap between recovery efforts and broader structural change.

**13:10 - 14:30 - Lunch**

**14:00 – 15:30 - Research Presentations, Parallel Sessions V**

**Room 1: *Urban Planning, Community Strategies, and Justice in Disaster Management/ Planificación Urbana, Estrategias Comunitarias y Justicia en la Gestión del Riesgo***

**14:00- 14:20**

Title: Opportunities And Legal Obstacles For Planning, Emergency Management And Reconstruction Processes In The Face Of Man-Made Threats (Wildfires) In Chile. Research Advances

Authors: Ojeda, Carolina; Flores, Laura; Vicuña, Magdalena; González, Constanza; Gil, Magdalena

**Abstract:**

The preliminary advances are that a high level of ignorance was observed on the part of the professionals consulted on the topics analyzed: emergency management, planning, prevention and reconstruction. Another relevant finding was the lack of training for municipal personnel and other services that are the ones who execute these instruments in the territory.

**14:20 – 14:40**

Title: Intervenciones urbanas para la prevencion y atencion de desastres

Authors: Lopez, Adriana Patricia; López, Oswaldo.

**Abstract:**

La propuesta de trabajo que hace el proyecto UR-BANiños, con la comunidad del barrio Siloé y, en general, en la búsqueda de su replicabilidad en otros contextos altamente vulnerables frente a las inundaciones, es la utilización de elementos locales y materiales reutilizados para la intervención urbana, a partir del concepto de la “infraestructura verde”, con la participación de la comunidad, la cual permite generar una relación entre la “obra” y su entorno, que se armoniza desde una mirada ecológica con el respeto de los ciclos naturales de los ecosistemas presentes en el lugar de intervención. Así, la manera en la que este trabajo comunitario aporta en el mejoramiento de las condiciones de vulnerabilidad frente a las inundaciones es a partir del establecimiento de elementos técnicos para reducir los picos (caudales máximos) de escorrentía



y reducir las velocidades máximas en el sistema de drenaje, en especial, en la canalización de la quebrada Isabel Pérez.

**14:40– 15:00**

Title: Resilient planning in territories prone to wildfires. Preliminary results of the community experiences of the Community Forest Fire Prevention Network in Chile

Authors: Ojeda, Carolina; Gil, Magdalena; González, Constanza; Mellado, Myriam

Abstract:

The preliminary results are associated with the advantages and disadvantages of strategies for forest fire risk in fire-prone rural landscapes, the lack of correlation between the types of measures and the occurrence, and the lack of support from key actors to amplify the positive effects of the Network in communities. The effects of the Network's actions in generating community-resilient planning for fires in territories prone to forest fires are discussed through its measures: firebreaks, free vegetation strips, water catchment pools, site cleaning, and sustainable property designs, among others.

**15.00 – 15:20**

Title: Transformaciones de las prácticas espaciales desde la Memoria Colectiva del Fuego en Campamentos El caso de Mesana Alto, Valparaíso

Authors: Soto, Marcela; Urtubia, Rafael; Cancino, Francisca.

Abstract:

La memoria colectiva espacial, especialmente en el contexto de campamentos, carece de promoción y atención en el trabajo de comunidades vulnerables. Además, se observa una invisibilización en las ecologías de los saberes de sus propios habitantes. Estas dinámicas impactan significativamente en la comprensión de la evolución de los entornos urbanos informales, como se destaca en las periferias de Valparaíso, Chile. Los resultados de esta investigación, presentados en distintas escalas espaciales (estado, región, ciudad, campamento, casa), revelan varios aspectos clave: la colaboración y auto organización de la comunidad en torno a catástrofes de fuego, el miedo y la continua atención a situaciones de fuego especialmente a partir del mega incendio de 2014, la existencia de prácticas espaciales específicas en respuesta a situaciones de fuego, así como una planificación urbana auto organizada enfocada en la prevención y manejo de incendios. Sin embargo, también se revela que, a pesar de dicha planificación, la memoria espacial es frágil y tiende a desvanecerse con el tiempo debido a la necesidad urgente de habitar los espacios.

**Room 2: Knowledge Systems, Local Agency and Culture in Disaster Risk Reduction/  
Sistemas de Conocimiento, Agencia Local y Cultura en la Reducción del Riesgo**

**14:00- 14:20**



**Title:** Indigenous Traditional Knowledge Systems and Disaster Preparedness

**Authors:** Baars, Roger; Potiracha, Yootthapoom.

**Abstract:**

This project investigates indigenous and traditional forms of disaster knowledge and preparedness in Chiang Mai Province (Thailand). A better understanding of these traditional systems could help to develop a framework to integrate ITK into early warning systems, and to link and translate EWS to non-scientific worldviews in rural indigenous communities.

**14:20 – 14:40**

**Title:** Optimising Indicator Selection for Disaster Recovery: A Hierarchical Decomposition Approach

**Authors:** Potangaroa, Regan; Hubbard, Franci.

**Abstract:**

By structuring recovery indicators into a hierarchical model, this analysis provides a systematic approach to identifying critical pathways and dependencies among recovery activities.

**14:40– 15:00**

**Title:** Bottom-up Initiatives in Conditions of Informality: Exploring Tensions and Conflicts in Artefacts of Disaster Risk Reduction (ADRR)

**Authors:** Lizarralde, Gonzalo; Herazo, Benjamin; Bornstein, Lisa.

**Abstract:**

Much has been written about the importance of considering bottom-up agency in DRR in informal settlements in the Global South. Some agencies and authors have romanticized a smooth path to urban transformation through community action. Few studies have therefore addressed the tensions and conflicts that emerge during the development of local initiatives. By examining local initiatives (which we call here “artefacts”) aimed at mitigating climate change impacts and food-related problems we found five key tensions. First, divergent motivations arise as community members seek different goals. Second, competition for space is common in places where densities are very high, creating conflicts between stakeholders. Third, local food gardens and orchards require constant care by multiple actors, creating tensions when roles and responsibilities are not respected. Fourth, several local initiatives blur boundaries between what is considered “private” and “public,” leading to disputes over ownership and benefit-sharing. Finally, there are often perception gaps between local actors and external stakeholders, who tend to adopt differing narratives and explanations about what the problems are and their solutions. We conclude that artefacts of disaster risk reduction are dynamic spaces of negotiation between stakeholders. Trust, legitimacy, traditions, and emotions play a fundamental role in the development of these artefacts.

**15.00 – 15:20**



Title: The role of cultural events in risk reduction: Addressing territorial fragility through culture in Parintins, Brazil

Authors: Cossu, Mauro; Lizarralde, Gonzalo.

**Abstract:**

Each year, tens of thousands of visitors travel to the city-island of Parintins, along the Amazon River, to attend its Folklore Festival. Centered on the “Bumba Meu Boi” tradition, the festival is more than a cultural celebration. It strengthens the local economy, provides livelihoods for thousands, and allows the community to reinterpret its traditions while shaping a shared vision for the future.

**15:30 - 16:30 - i-Rec Student Competition Results Presentations**

**16:30 - 17:00 - Coffee Break**

**17:00 - 18:00 - Discussion and Closing of the Conference**