

# ON THE NEED TO TACKLE DISASTERS WITHIN THE CONTEXT OF THE RISK SOCIETY

In today's world, in addition to the risks associated to science and technology, many new situations have emerged which are often impossible to quantify and qualify. Nevertheless, it is known that the production of urban socio-environmental risks is associated to poverty, inequalities and the prevailing logic of urban development.

Risks have a strong social dimension which is aggravated by the vulnerability of populations and the physical context in which they find themselves. Therefore, the emerging question relates to risk management, where the prevailing dynamics is that the prevention and minimization of consequences will depend on policy measures within each specific geographical context.

Literature on environmental disasters, more specifically on floods and landslides, encompasses topics such as the security and vulnerability of populations. The focus is often on groups residing in precarious settlements subject to socio-environmental risks which, because of extreme weather conditions, face the need to manage the adverse impacts which will affect everyone either directly or indirectly.

In situations such as floods, one of the most common and devastating types of disasters, the post-disaster problems created flag up the absence of land use and occupation policies, governments' lack of preparedness and the absence of a prevention *ethos* in society. Furthermore, aggravating factors, associated to social inequalities and the precariousness of urban infrastructure, are ignored. These increase the scale of urban tragedies caused by the historical lack of control of occupation processes.

The current socio-environmental scenario, where notions of risk and security play a major part, is characterized by the weak capacity of poorer societies to provide responses and the absence of joined-up actions due to an institutional political culture based on sectorial policies and actions in the interest of the dominant political and economic groups.

It is worth highlighting that in the risk society, "disasters waiting to happen" cannot be seen as fatalities, given that most can be predicted and prevented.

Therefore, within the current global urbanization scenario, there is an unquestionable need to implement policies to make cities socially and environmentally sustainable so as to counteract the deterioration of urban living conditions, particularly in peripheral countries.

This is because extreme events have become more frequent, increasingly threatening the precarious infrastructure of cities. Metropolitan areas are faced with the challenge of reducing disaster risks, particularly those related to heavy rainfall.

Thus, it is essential to re-think the governance of urban space both to prevent and provide warning of disasters and develop post-disaster actions. It is important to implement policies that prevent and reduce degradation in fragile areas and sites which are essential for natural systems to work effectively. This may be achieved by joined-up actions between the different sectors of society, acting at various levels.

In this special issue, dedicated to the discussion on *Natural Disasters and Socio-environmental Risks*, our co-editors Antonio Aledo, at the University of Alicante (Spain) and Jeroen Warner, at the Wageningen University (the Netherlands) have contributed two articles which address key issues in the debate on risks, their impacts and the prevailing logic in society. The following brief summary of this issue's articles will familiarize the reader with our topic.

In their article *Disaster culture matters*, Jeroen Warner and Karen Engel emphasize the need to engage in inclusive and reflexive debates on how to tackle disasters, involving all social groups. They warn against the placing of too much importance on the actions of experts and top-down planning.

Antonio Aledo and Samia Sulaiman in their article *La incuestionabilidad del riesgo*, show how risk research must move beyond a managerial focus to criticize the socio-political context which results in development inequalities, leading to vulnerabilities in the face of risk.

Luana Marcia Baptista Tavares and Fernando Cordeiro Barbosa analyze the role of fear in face of the consequences and damages produced by natural disasters in their article *Reflections on Fear and its Implications in Civil Defence Actions* which discusses to what extent fear is an ally in prospective preventive actions carried out by civil defence staff, and at what point it is time to consider what happens to victims with regard to their post-traumatic expressivities.

Gabriela Marques Di Giulio, Sílvia Serrao-Neumann, José Eduardo Viglio, Lúcia da Costa Ferreira and Darryl Low Choy discuss the use of focus groups and planning in scenarios involving stakeholders and researchers in qualitative risk studies. In the article *Methodological proposals in research on risk and adaptation: experiences in Brazil and Australia* the authors present and analyze the findings of two studies, one conducted in the Litoral Norte of São Paulo (Brazil) and the other in the Northern Queensland Coast (Australia), between 2011 and 2013.

In *Risk Communication and the Discourses of the Sergipe Press regarding the Diversion of the São Francisco River*, Michele Amorim Becker and Antônio Carlos dos Santos analyze the discourse of the Sergipe press on the possible socio-environmental risks incurred by diverting the São Francisco River, based on a documental piece of research conducted between 2004 and 2007.

Eliane Teixeira dos Santos and Eduardo Amaral Haddad, in their article *Mapping Potential Economic Losses from Flood Points in the Municipality of São Paulo, 2008-2012* assess the economic impacts of specific locations flooded in São Paulo, taking into account a broader conception of damages which includes indirect costs, estimated by analyzing the city's existing production chain links.

In an Brazil, the collapsed Eden: Natural Disasters in contemporary Brazil, Leonardo Freire de Mello and Maria Aparecida Papali discuss the continuation of the longstanding

“Eden” myths in Brazil and how these relate to the environment and society. They also analyze the explanations given to different natural disasters. According to the authors, this point of view allows for a better understanding of current man/nature relations in Brazilian society, based on global environmental changes and their risks and vulnerabilities.

Raquel Otoni de Araújo and Teresa C. da Silva Rosa analyze risk communication in flood and landslide situations as a result of rainfall in the state of Espírito Santo in their article *Socio-environmental vulnerability and disaster risk reduction: the role of Espírito Santo State (Brazil)*

In the article *Water-related disasters in Brazil: perspectives and recommendations* Luciana de Resende Londe, Marcos Pellegrini Coutinho, Leandro Torres Di Gregório, Leonardo Bacelar Lima Santos and Erico Soriano discuss the main challenges so as to minimize environmental disaster risks associated to water resources in Brazil.

In *Proposal of a natural disaster training program by considering the previous victims’ profile*, Irineu de Brito Junior, Carlos Henrique Viegas de Rosis, Priscilla Vieira Carneiro, Adriana Leiras and Hugo Tsugunobu Yoshida Yoshizaki analyze environmental disasters which have taken place and the profile of victims in order to propose training programmes so as to contribute to risk prevention and mitigation policies geared toward disaster preparedness.

In the article *Regional Public Policy for risk management: the implementation process in the greater ABC region, São Paulo City Metropolitan Region*, Fernando Rocha Nogueira, Vanessa Elias de Oliveira and Kátia Canil study the impact of the disasters provoked by heavy rainfall in Santa Catarina (2008) and Rio de Janeiro (2010 and 2011), focusing on the legal and institutional advancements in disaster risk management.

Viviane Kraieski de Assunção conducted an ethnographic study on the socio-spatial re-configuration of the municipality of Tubarão subsequent to the 1974 floods. In the article *The 1974 Floods as social drama: the relationship between perceptions of risk, conflict and gentrification*, she discusses changes in the image of a specific locality, as well as the relations of conflict which emerged between residents of different social classes and as a result of a process of local gentrification.

When discussing disaster prevention based on the experiences of adolescents living in risk areas in the northern region of the city of São Paulo, Roberth M. Tavanti and Mary Jane Spink address current policies, directives and concepts which steer the actions of Civil Defence in Brazil, in particular, disaster prevention activities, in their article *Local action and prevention: a study about adolescents living in areas of socio-environmental risk*.

Finally, Luísa Schmidt, Ana Horta and Sérgio Pereira return to the debate on nuclear accident security issues. Their article, *The Fukushima nuclear disaster and its effects on media framing of fission and fusion energy technologies*, compares the media coverage of nuclear fusion and fission technologies in three countries, Germany, Spain and Portugal, between 2008 and 2012, demonstrating that the Fukushima disaster did not have a significant impact on the way the media frames nuclear fusion in most of the newspapers analyzed.

In the Article *Geotechnical risks and social vulnerability in coastal areas: inequalities and climate change* Allan Yu Iwama, Mateus Batistella and Lúcia da Costa Ferreira analyze

environmental risks in the Litoral Norte [Northern Coast] region of São Paulo State, within the context of extreme weather events. The authors argue that there is potential for reducing risks and disasters by implementing territorial management policies.

*Extreme weather events and their consequences on health: the 2008 disaster in Santa Catarina taking into account different information sources* analyzes the health impacts of an extreme weather event which took place in November 2008, in Santa Catarina. Its authors, Diego Ricardo Xavier, Christovam Barcellos and Carlos Machado Freitas show that the immediate effects of disasters make up the most visible face of longer-lasting impacts, revealing social, environmental and institutional vulnerabilities.

We hope you enjoy this issue!

PEDRO ROBERTO JACOBI, ANTONIO ALEDO and JEROEN WARNER