

**Global Disasters and World Society:
The Ecological Dimension
of Modern World-System Crises**

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The International Conference on Global Disasters and World Society: The Ecological Dimension of Modern World-System Crises, hosted by the Research Group on Political Economy of the World-System, and co-organized by the University of California Disaster Resilience Network, was held in Florianopolis, Brazil from 25 to 27 March, 2024.

The conference convened scholars, activists, politicians, and government officials to exchange ideas and analyses of current climate crises from a world-historical perspective. Its objective was to formulate strategies for surviving and mitigating increasingly frequent and severe global and local natural and anthropogenic disasters, and to pave the way for a more just, democratic, and collectively rational world society. To achieve this goal, the conference organizers encouraged researchers to investigate the evolution of the modern world-system and to devise plans for moving towards a less unequal and more cooperative world society.

The conference adopted a hybrid format, with both in-person and remote participants who presented, discussed, and engaged with other speakers and the local and remote audiences. The in-person segment was hosted at the Federal University of Santa Catarina in Florianopolis, Brazil, with additional local hubs facilitating the in-person and remote sessions. These hubs were hosted by the University of Califor-

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nia-Riverside and the Emancipatory Future Studies at the School of Social Sciences, University of the Witwatersrand, Johannesburg. Remote access was provided via the Zoom Platform to speakers and audiences from South America, Africa, Europe, North America, South and East Asia, and Oceania.

Below follows a brief overview of the activities in Florianopolis.

As opening conference presentation by **Christopher Chase-Dunn** (University of California-Riverside) talked about the *Evolution and Disasters: Global and Local Hazards and Disasters in Biological and Socio-Cultural Evolution and Ways Forward in the Current Crises*. His presentation offered a comprehensive exploration of time, evolution, and societal dynamics, drawing on insights from a range of disciplines including geology, biology, sociology, and political science. He started discussing the concept of deep time as a way of understanding current problems by considering the long history of disasters faced by humans and other life forms on Earth. He highlighted the need to learn from the past and address global challenges. Chase-Dunn introduced the concept of evolution, emphasizing patterns of change in complexity and hierarchy across geological, biological, and socio-cultural dimensions. He stressed the importance of avoiding teleological interpretations and focusing on empirical observations. From an evolutionary perspective, Chase-Dunn discussed the emergence of complexity including the role of disasters and mass extinctions in shaping the course of evolution. He touched on the rise of social complexity in social insects and examined the evolution of human societies, from hunter-gatherer bands to modern nation-states, emphasizing the role of language, writing, and technology in accelerating cultural evolution. The core-periphery hierarchies highlighted the stratified nature of the world-system, with core countries dominating and periphery countries often experiencing limited upward mobility. Chase-Dunn provided insights into the historical trajectory of the United States from a colonial periphery to a global hegemon. In doing so, he introduced the concept of world revolutions as periods of global unrest and rebellion that influenced the rise and fall of global hegemony. He discussed waves of colonial expansion, decolonization, and their implications for global governance. Chase-Dunn explored the historical trends in political evolution, especially as he examined the rise and fall of polities, empires, and urban centers throughout history, highlighting cyclical patterns and long-term upward trends. For him, the phenomenon of new systems emerging from the periphery and conquering established core regions, shaping global power dynamics,

was a very important topic in the context of contemporary challenges such as climate change, imperialism, and the decline of hegemony, analyzing their implications for global stability. Looking to the future, Chase-Dunn presented three possible future scenarios: the continuation of capitalism with a focus on green initiatives, the emergence of a global police state, or the realization of a democratic and sustainable global political economy. In order to build a more democratic world, strategies for change need to be discussed that address current challenges, including local community cooperation, global social movements, and reform of international institutions like the United Nations. Chase-Dunn emphasized the importance of thinking pragmatically, supporting green initiatives, and laying the groundwork for a more democratic and equitable future society.

The second panel brought together academic specialists, Brazilian public actors and representatives of social movement to explore issues related to *hazards, disasters, and Brazilian responses*. **Regina Rodrigues** (Federal University of Santa Catarina, Brazil) discussed the impact of climate change on Santa Catarina, Brazil, focusing on increasing temperatures and precipitation extremes. Rodrigues highlighted the expansion of the tropical region, leading to drier conditions in some areas and more intense rainfall in others. She also addressed the implications of climate change for water availability, agricultural practices, and coastal erosion. Additionally, Rodrigues emphasized the role of social inequality in exacerbating the effects of climate change and called for mitigation and adaptation policies to address these challenges. She advocated for nature-based solutions and the transition to green energy to mitigate the impacts of climate change. Finally, Regina Rodrigues stressed the importance of investing in science and technology to better understand and respond to the effects of climate change. **Nayra Paye Kaxuyana** (President of the Association of Indigenous Academics at the University of Brasília) spoke about indigenous perspectives on climate change and their efforts to address it. She emphasized the importance of indigenous knowledge in protecting biodiversity and combating climate change. Nayra highlighted the role of indigenous-led initiatives, such as territorial and environmental management plans, in mitigating and adapting to climate change. She discussed challenges faced by indigenous communities, including access to funding and participation in climate negotiations. Nayra also emphasized the need for greater recognition of indigenous knowledge and collaboration between indigenous and non-indigenous groups in climate action. **Luciano Paez (represented by Marcos Lacerda)**

(Municipal Climate Secretary) delved into Niterói's response to the devastating Bumba Hill tragedy in 2010, which claimed more than 260 lives. Lacerda discussed the city's subsequent transformation, which began in 2013 with the development of a strategic plan called "The Niterói We Wanted." This plan was shaped by extensive public consultation and identified environmental sustainability as a key focus, setting the stage for the establishment of the country's first Municipal Climate Secretariat in 2021. A significant part of the presentation was dedicated to detailing Niterói's ambitious climate initiatives. These included the creation of climate action forums and committees, such as the Municipal Climate Change Forum and the Interdepartmental Committee on Climate Change. Additionally, the city had implemented programs like the Social Carbon Neutrality Program, which incentivized emissions reduction in low-income communities. Education and public awareness were highlighted as crucial components of Niterói's strategy, with partnerships formed with institutions like the Oswaldo Cruz Foundation to integrate climate education into school curricula. The city had also engaged in international cooperation, participating in events like the COP conferences to advocate for local government involvement in climate action. Several specific projects were mentioned, such as the development of cycling infrastructure, the promotion of solar energy, and the certification of businesses for carbon neutrality. These initiatives contributed to Niterói's broader Climate Action Plan, which aimed to mitigate emissions, enhance resilience, and foster sustainable development. Overall, Lacerda emphasized Niterói's comprehensive approach to addressing climate change, combining policy development, community engagement, and innovative projects to create a more sustainable and resilient city. **Inamara Mélo (represented by Pedro Christ)**. The representative of the Ministry of the Environment, on behalf of the general coordinator of climate change adaptation, contextualized the federal approach to climate adaptation planning in Brazil. He highlighted concerns about emission scenarios and observed impacts of climate change, including increased temperature, duration of heat waves, reduced rainfall, and increased extreme events. After discussing the challenges faced by Brazil, Christ detailed the process of developing the Climate Plan, which aimed to ensure an ambitious climate policies and robust sectoral plans for mitigation and adaptation. This plan involved a participatory approach, with contributions from different sectors of society and government. He explained the structure of the Climate Plan, which included general and sectoral strategies for mitigation and ad-

aptation, as well as specific action plans. Each sector had its own vulnerability and risk analysis, using the IPCC Sixth Framework's concept of risk as a methodological guide. The process included promoting climate justice and including different social groups in the sectoral plans. The Climate Plan timeline involved completing the general strategy in April, followed by the completion of the sectoral strategies in September, with public consultation scheduled for October. The goal was to develop a climate plan that reflected Brazil's particularities and promoted a comprehensive and sensitive response to the challenges of climate change.

The third panel discussion, entitled *Imperialism, Wars, and Global Disasters*, focused on anthropogenic disasters. **Carlos Eduardo Martins** (Federal University of Rio de Janeiro, Brazil) discussed the contemporary world situation, highlighting a period of catastrophic and systemic impasse, mainly due to the decline of United States hegemony. Martins also discussed the historical context of the decline of the US, mentioning the shift to financialization and outsourcing by the American bourgeoisie since the 1970s. The role of China as a key competitor was emphasized, particularly with its technological strategy. He also mentioned US efforts to contain China's rise, including through its policy in Ukraine and a possible alliance with Russia against China. Moreover, Martins addressed the difficulties of contemporary imperialism in establishing its global order, with examples such as the political crisis in Israel, the growing inequality in military spending between the US, China, and Russia, and the internal resistance in the US to traditional foreign policy. He concluded by suggesting that signs of war do not necessarily indicate an imminent catastrophe, citing the example of the Vietnam War as a political defeat for imperialism, and noting the current military balance and growing social and political discontent with US-led Westernism. **Denise Lobato Gentil** (Federal University of Rio de Janeiro, Brazil) proceeded to delve into the topic of the economic dimension of global conflicts, particularly focusing on the interconnection between financialization and militarization. Gentil discussed the historical context of the US economy and its significant spending on defense, which has a profound impact on various economic variables such as profit rates, public debt, and stock markets. She emphasized the role of the military-industrial complex and its influence on both the economy and geopolitical dynamics. Furthermore, Gentil explored the relationship between military spending and profit rates, highlighting empirical evidence suggesting that military expenditures could partially offset de-

clines in profit rates. She also analyzed the role of financialization in shaping the dynamics of the defense industry, noting its impact on investment priorities and technological innovation. Gentil underscored the importance of understanding how financialization and militarization intersect with broader economic trends, such as the rise of speculative finance and the expansion of public debt. Additionally, she examined the implications of these trends for global power dynamics and the perpetuation of neoliberal agendas. In conclusion, Gentil reflected on the need to confront the social and humanitarian consequences of militarization and financialization, urging a critical examination of these phenomena in order to foster resistance and ultimately overcome the tragedies inherent in the capitalist system. **Gabriel Merino** (National University of La Plata, Argentina) addressed the issue of multipolarity and the hybrid world war, highlighting key geopolitical moments. The first moment took place between 1997 and 2001, marked by the geopolitical reaction against the neoliberal unipolar order and the emergence of multipolarity. The second moment was the global economic crisis of 2008–2009, which accelerated financialization and created a duality in the world economy between the stagnating Global North and the growth of China and Asia. The third moment was identified as the beginning of the hybrid world war around 2013–2014, characterized by the intensification of contradictions between unipolar and multipolar forces, especially evidenced by the war in Ukraine and events such as Brexit and the election of Trump. Merino highlighted the importance of understanding these geopolitical dynamics in a multipolar world, where conflicts occurred in various territories, such as Ukraine, Israel, and Taiwan. Merino also emphasized the contradiction between emerging forces and unipolar forces, especially those led by the Anglo-American power pole, and mentioned trends such as the rise of Asia, the democratization of world power, and the emergence of a new multipolar multilateralism. Merino argued against the idea of a new Cold War, highlighting the fundamental differences of the current context compared to the Cold War period, such as global economic interdependence and the role of China as an integrated power in the international system. He also discussed the hybrid world war as a combination of conventional and unconventional wars, aimed at territorial political disputes. Finally, Merino addressed the strategic importance of countries like Ukraine, Israel, and Taiwan in the geopolitical contest between multipolar and unipolar forces, highlighting the pursuit of influence and control in these regions as part of the transition of the world-system. He concluded by emphasizing the

dangers of an escalation of the hybrid world war and the need to understand the current culture of Anglo-American hegemony in this context of global transition.

Between the second and third days of the conference, the Papers Sections, which brought together specialists from different academic fields to develop a holistic perspective on anthropogenic and natural disasters, were divided into three sections: historical disaster studies; nature of the current crisis and strategies; and what is to be done now?

In relation to what *Historical Disaster Studies* can teach us about the present, **Andrey Korotayev** suggested that the origins of Islam should be examined in the context of the sixth-century global climatic disaster and Arabian socio-ecological crisis. He argued that this crisis led to the dismantling of rigid supra-tribal political structures among the Arabs, paving the way for the emergence of Islam. The emergence of Islam and its communication network played an important role in integrating societies within the world-system. **Daniel de Pinho Barreiros** discussed the relationship between pandemics and world-system phases, using the example of the Antonine Plague (165–180 CE). He suggested that pandemics often coincided with phases of systemic fragmentation and had causal feedback loops. He linked the Antonine Plague to a transcontinental viral pandemic exacerbated by climatic impacts, leading to disruptions in hierarchies of power and wealth. **Daniel Ribera Vainfas** explored the impact of climate change in fourteenth-century England on the transition from feudalism to capitalism. He argued that climate change exacerbated contradictions in peasant and manorial economies, leading to societal change. Climate acted as a source of uncertainty, prompting societies to develop climate hedging strategies to minimize losses. **Roberto J. Ortiz** examined the rise and ongoing decline of fossil-fueled development in capitalist and state-socialist contexts from a world-ecological perspective. He highlighted the contradictions inherent in oil-fueled accumulation and development, showing how oil dependency has shaped economic, social, and environmental histories. He emphasized the role of oil in both driving and contradicting current trajectories, especially in the context of the unfolding global ecological crisis. **Fred Spier** discussed humanity's current ecological predicament from the perspective of Big History. He emphasized the need to understand the evolution of the biosphere and humanity's place within it. He summarized his research spanning over forty years, highlighting themes explored in his recent book *How the Biosphere Works: Fresh Views Discovered While Growing Peppers*.

About the nature of the current crisis and strategies, **Abel Alves** discussed the human impact on the planet and the ethical implications regarding non-human animals. He explored three historical perspectives on the status of animals and argued that traditional environmentalism and animal rights perspectives may not fully address these ethical concerns. Alves suggested a shift towards the recognition of non-human animals as interactive agents, proposing a less anthropocentric perspective on coexistence with nature. **Giacomo Otavio Tixiliski** examined the crisis of the Capitalocene era by integrating concepts from Jason W. Moore's 'Capitalism in the Web of Life' and Davi Kopenawa and Bruce Albert's 'The Falling Sky: Words of a Yanomami Shaman.' He analyzed shared themes in these works, focusing on the concepts of human-environment relationships and the disruption of natural processes. Tixiliski suggested the potential for convergence between divergent perspectives. **Júlia Eduarda Gouveia Rabelo de Abreu and Bruno Andrade Teixeira** explored the political and social implications post-disaster of the Mariana dam collapse in Brazil. Using qualitative and quantitative data, they analyzed the relationships between the Brazilian state, mining companies, and affected communities. Their findings highlighted the systemic problems within the capitalist economic model, which prioritizes profit over environmental justice. **Leonid Grinin and Anton Grinin** discussed the deepening crisis of the World System and its potential impact on environmental degradation. Their paper explored the negative environmental consequences of systemic crises within the World System. They analyzed geopolitical and economic crises, differences in positions between the developed and developing countries, as well as influence of military actions on environment, including the aftermath of military actions in Ukraine. **Toufic Saredidine** employed world-systems analysis to examine the carbon intensity of the Belt and Road Initiative projects involving China, Pakistan, Cambodia, and India. He compared the carbon intensity trends in these countries, highlighting the peripheralization processes and economic dominance of China. Saredidine argued that China's economic hegemony is influencing carbon intensity patterns in these countries, particularly through outsourcing and investment strategies.

Addressing the question of *what is to be done now*, in the third session, **Fathun Karib** explored the link between disaster management and capitalist planetary management, particularly in the context of the Lapindo Mudflow Disaster in Indonesia. He argued that both disaster management and planetary management were embedded in

mainstream scientific perspectives and served the interests of capitalist systems. Karib suggested that these approaches overlooked the structural causes of environmental crises and disasters, which were rooted in capitalism. **Glen David Kuecker** discussed resistance to capitalist reproduction in what he termed the 'liminal state,' which was the transitional period between the modern world system and a new system caused by systemic collapse. He examined opportunities for anti-capitalist resistance within core crises such as climate change, energy transition, and political instability. Kuecker proposed Arturo Escobar's concept of the 'pluriverse' as a framework for resistance in the liminal state, drawing on case studies of resistance movements globally. **Leslie Sklair** reflected on the transition to socialism, advocating for a community-based approach to socialist revolution. He proposed the creation of producer-consumer cooperatives (P-CCs) as a means of exiting the capitalist market and establishing less hierarchical economic and social relations. Sklair argued that organizing small-scale socialist communities was essential to mitigating environmental crises and building a sustainable future. **Paola Huwe de Paoli** examined the governance of climate change within the framework of the Anthropocene, focusing on the adequacy of mitigation strategies proposed by global climate governance. She criticized the anthropocentric nature of these strategies, arguing that they prioritized sustainable development within the framework of capitalism. De Paoli suggested that such approaches are insufficient for effective mitigation and fail to address the root causes of environmental crises. **William K. Carroll** provided a theoretical-historical analysis of fossil capitalism and the climate crisis, as well as an assessment of alternatives. He periodized the development of fossil capitalism and identified key moments in its evolution, including the post-war boom era and the current organic crisis. Carroll examined various alternatives to fossil capitalism, critiquing market-based solutions and exploring proposals for democratic eco-socialism.

Concluding the conference, **Jason W. Moore**, in his presentation entitled *Preachers to Empty Pews? Marx, Wallerstein, and the Worldwide Class Struggle in the Web of Life*, developed a comprehensive exploration of different intellectual and political currents, focusing on the intersection of Marxist theory, environmentalism, and geopolitics. Moore's journey started from Immanuel Wallerstein's concept of 'inter-science', which challenged the traditional division between the natural and social sciences. This division, originating from the Enlightenment, influenced academia and perpetuated Eurocentrism.

Wallerstein's work emphasized the intertwined relationship between intellectual life, knowledge production, and imperialist policy. Moore critiqued the dominance of Cold War-era academic frameworks, such as area studies and environmentalism, which were influenced by American imperialism. He highlighted the role of institutions like the Rockefeller and Ford Foundations in shaping intellectual discourse, including the cultural Cold War aimed at countering Marxism. Moore argued for a Marxist analysis that integrated environmental concerns and acknowledged the socio-ecological dimensions of capitalist development. He criticized mainstream environmentalism for its technocratic and anti-democratic tendencies, which often aligned with capitalist interests. He highlighted Wallerstein's contributions to understanding the capitalist world-system, including his insights into the relationship between climate change, class struggles, and imperialist expansion. For Moore, Wallerstein's synthesis of Marxist theory and historical geography was praised for its potential to provide a framework for analyzing the interplay between capitalism and the environment. However, Moore also criticized the limitations of both Marxist and environmentalist scholarship, particularly in neglecting the role of class struggle and imperialism in shaping socio-ecological dynamics. He called for a re-examination of Marxist theory in the context of world history and emphasized the importance of practice in bringing about meaningful change. Overall, Jason W. Moore advocated for a holistic approach that integrates Marxist analysis with environmental concerns and emphasized the ongoing struggle against capitalism and imperialism. He emphasized the importance of understanding historical capitalism and its impact on the planet, arguing for a socialist approach to address current crises. Moore highlighted the dialectical relationship between humans and nature, the role of labor in shaping society, and the need for solidarity among workers to challenge capitalist exploitation. He proposed a framework for analyzing capitalism as a system that organizes planetary life, advocating for a revolutionary socialist response to the current crises facing humanity and the environment.

Organizing a three-day international scientific conference is a significant challenge that requires the support of many individuals and institutions. The organizers expressed gratitude to the hardworking staff of the local conference office at the Graduate Program in International Relations (PPGRI) and The Graduate Program in Natural Disasters (PPGDN) for their organizational support. They also thanked the reviewers who assisted in the reviewing and selecting the abstracts

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