The History of Environment and Global Climate Change: Water, Ecology, De-Forestation, Agriculture, Politics, and the Management of Nature

Rachel Carson Center

7 – 8 May 2010, Do Diogo de Sousa Museum Braga, Portugal

Sponsors: 2nd International School Congress, Association of South Asian Environmental Historians, Rachel Carson Center for Environment and Society (RCC), and European Society for Environmental History (ESEH), and others.

Conveners: Angela Mendonca (President of the 2nd International School Congress in Portugal) and Ranjan Chakrabarti (President of the Association of South Asian Environmental Historians)

Participants: Sadia Afrin (University of Minho, Portugal), Stefania Barca (University of Coimbra, Portugal), Marti Boada (Universitat Autònoma de Barcelona, Spain), Fernández Calvache (University of Minho, Portugal), Anabela Carvalho (University of Minho, Portugal), Ranjan Chakrabarti (Jadavpur University, India), Ana Delicado (Universidade de Lisbon), Mário Freitas (Universidade Federal de Santa Catarina, Brazil), Donald Hughes (University of Colorado, USA), Jagdish Lal Dawar (Mizoram University, India), Julia Lourenço (University of Minho, Portugal), Paulo Magalhães (Programm Earth Dominion, Portugal), Michael Marzolla (University of California, Santa Barbara), Christof Mauch (RCC, LMU Munich), Angela Mendonca (International School Congress, Portugal), David Moon (Durham University, UK), Iago Otero (Universitat Autònoma de Barcelona, Spain), Khan Rhubayet Rahaman (University of Minho, Portugal), Joan David Tábara (Universitat Autònoma de Barcelona, Spain), Maria Jose Prados Velasco (University of Minho, Portugal)

Until about 150 years ago, it was generally assumed that climate had been essentially constant throughout human history. But the nineteenth-century discovery of "ice-ages," and of warmer and colder periods, revolutionized our thinking about long-term temperature changes. In recent years, environmental, climate and social historians have played a major role in reconstructing climate data and in understanding the social, cultural and political impact of climate change. They have also demonstrated that the phenomenon of global warming is closely linked to human activity.

On May 7 - 8, 2010, a group of scholars from different continents and disciplines met in Braga, Portugal for two days of intensive debate on issues in environmental and climate history. The event was part of a larger initiative – a series of conferences and events throughout the "year of biodiversity" – sponsored by the National Commission of UNESCO. ESEH president **Geneviève Massard-Guilbaud** and ESEH vice-president **Christof Mauch** chaired the Scientific Committee for the Workshop. One of the unique aspects of the event was that it was organized in tandem with the 2nd International School Congress on "Resources, Sustainability, and Humanity." This brought hundreds of students and educators to Braga, as well as several diplomats, artists, and scholars.

In the opening lecture, entitled "Water, Climate Change and Environmental Refugees," **Ranjan Chakravarti** (Jadavpur University, India) argued that recent tropical storms, such as the tsunami of 2004 or Hurricane Katrina, should not be seen as "natural disasters" because, in reality, they "were exacerbated by human activities." In comparing different sites of catastrophe, Chakravarti emphasized that the destruction of ecosystems – such as forested watersheds, coral reefs and mangroves - contributed greatly to the vulnerability of regions around the globe.

The second keynote, entitled "What is World Environmental History, and What Does It Do For Us?" given by **Christof Mauch** (RCC, LMU Munich), discussed the role played by nature in various cultures, and the force of nature as an agent in world events. Mauch examined the impact that the transfer of environmental knowledge has had on world history.

The third keynote speech, "Climate Change: A History of Environmental Knowledge," was presented by **Donald Hughes** (University of Colorado, USA). Hughes suggested that the scientific discourse about climate change should be divided into three major periods: The first period, which started in the 19th century and lasted until the end of the Second World War, was characterized by the development of major theories about the causation of climatic change and the discovery of the "greenhouse effect." The second phase, from the 1940s through the 1970s, was a period of testing hypotheses. It featured discoveries that revealed ancient climate changes, as the first ice cores were drilled in Greenland and Antarctica. In contrast to this phase, when scholars speculated that the climate might be moving toward another ice age, the third period, from the 1970s to present, featured global warming as an issue both in science and in world politics.

In the afternoon session, **Ranjan Chakravarti** discussed the problems that the politics of preservation in India have created for the livelihood of the rural poor. He explained that the protection of the tiger has created a massive danger for some of the most impoverished members of Indian society who live close to national parks in the Northeastern part of the country.

In a paper on the "Political Economy and the 'Disorder of Water,'" **Stefania Barca (**University of Coimbra, Portugal) explored the perception of environmental vulnerability between the end of the so-called Little Ice Age and the publication of G.P. Marsh's 1864 seminal study "Man and Nature." The paper focused especially on the Apennine Mountains in Southern Italy, an area where the Neapolitan Enlightenment School developed its political economy theory - (the so-called 'disorder of water theory') that attempted to explain floods and malaria.

In his paper "Climate and the Writing of History," **Christof Mauch** described the role that historians have played (and are continuing to play) in the reconstruction of climate change over time. He discussed weather observation, instrumental data and proxy information, providing examples of the impact of climate change on humans with an emphasis on Europe and America from the Middle Ages to the present.

In a paper entitled "Erosion in the Steppe Region of the Russian Empire," **David Moon** (Durham University, UK) presented changing perceptions of erosion in this region between the mid-eighteenth and early twentieth centuries. His analysis dealt specifically with scientists and agricultural specialists, some of whom developed an early understanding of the extent to which human activities, such as deforestation, were the cause of erosion in the steppe region.

In a special panel, a number of scholars from the Department of Civil Engineering of the University of Minho in Portugal gathered to discuss "Perils of Climate Change Impacts." Their regional focus was several major cities in Bangladesh, the very county that topped the Global Climate Risk Index, a ranking of 170 countries most vulnerable to climate change. According to a worst case scenario, half of Bangladesh's territory may be under water by the end of the twenty-first century. While the greenhouse emissions that endanger Bangladesh are mostly caused through global, not regional, emissions, metropolitan cities of Bangladesh are particularly vulnerable because of overpopulation, unbalanced city growth, underdeveloped infrastructures, and weak government policies.

The three final papers of the day were delivered by **Mario Freitas** (Universidade Federal de Santa Catarina, Brazil) focusing on the importance of public participation in the prevention of natural disasters; **Donald Hughes** who discussed human causes of damage in the Katrina Disaster; and **Jagdish Lal Dawar** (Mizoram University, India) who presented his new research project on traditional water system management among the Chin-Kuki-Lushai group of tribes in India. Dr. Dawar's talk was accompanied by large selection of slides which contributed greatly to his talk.

The second day of the workshop started with a number of fascinating presentations by social scientists. The keynote was delivered by **Anabela Carvalho** (University of Minho), an environmental sociologist, who looked at the relationship between media discourse, public opinion, and political, civic and economic action. In discussing science and political communication, as well as discourse analysis, Carvalho explained why environmental knowledge and media presentations generally do not lead to a change in the behaviour of citizens.

Following her talk, in a paper titled "The Earth Condominium," environmental lawyer **Paulo Magalhaes** proposed a new juridical concept for the management of the "Common House of Mankind" or the "Earth Condominium," as he calls it. He argued that mankind will need to adopt a new vision of the planet that is based on solidarity rather than territoriality, with autonomous as well as collective spaces - that is "condominial property".

In a project report that was jointly presented by **Iago Otero** (Universitat Autònoma de Barcelona, Spain), **Marti Boada** (Universitat Autònoma de Barcelona, Spain), and **Joan David Tabara** (Universitat Autònoma de Barcelona, Spain), these scholars looked at the "Socio-ecological Heritage in Mediterranean Landscapes." They argued that the decline in biodiversity is closely linked to a loss in cultural diversity. This linkage was especially true for the Mediterranean where the maintenance of the richness of the forms is very much related to the presence of traditional practices of resource management. Their paper focused on the historic municipality of Olzinelles in Catalonia, Spain, and they used a combination of archival data, semi-structured interviews, extensive field surveys of landscape elements, and biodiversity, as well as an exhaustive review of biodiversity monitoring studies to argue their position.

Another group of scholars from the University of Minho, Portugal, **Marta Fernández Calvache**, **Maria Jose Prados Velasco**, and **Julia M. Lourenço** introduced a new concept that they called "Naturbanization." The starting point of their project is the observation that society has increasingly seen a sprawl of cities throughout the surrounding countryside over the last few decades. This phenomenon is often referred to as "counter urbanization," and it comes out of a simultaneous demand for low cost and high quality of life. "Naturbanization" looks at the challenges of residential demand in highly valued natural areas, such as national parks. Naturbanization has led to changes in landscapes and the natural environment in remote places such as the Parque Nacional da Peneda-Gerês in Portugal to which these scholars applied their concept. They argued that humanity should be aware that low density development not only goes against the need for energy efficient cities but also increases the negative impact on high value and fragile ecosystems.

In the last paper on Saturday morning, **Ana Delicado** (Universidade de Lisbon) provided a historiographical survey of the climate change research community in Portugal. Delicado introduced both research institutions and funding schemes in the natural and social sciences in Portugal.

In a final discussion of the conference, chaired by **Ranjan Chakravarti**, **Christof Mauch**, **David Moon**, and **Michael Marzolla**, the chairs summarized the findings of the conference. The panellists were impressed by how well scholars from different continents and different disciplines had worked together. Michael Marzolla, who comes out of an environmental education program, was fascinated by what can be learned from history, while Christof Mauch appreciated the collaboration between scholars and practitioners. All panelists pointed out that scholars in environmental studies are confronted with similar questions in different parts of the world, and they expressed their hope that more workshops like the one in Braga would be organized in the not too distant future.

— Christof Mauch