Paper ID	054
Author(s)	Audrius Sabūnas
Title	History of Japan's involvement in Climate change diplomacy. Assessment of its active
	participation in the Conference of the Parties (COP) to the United Nations Framework
	Convention on Climate Change (UNFCCC)

This study analyses official Japanese climate diplomacy based on its participation records in COP organised by the official United Nations Framework Convention on Climate Change (UNFCCC), from the first session in Bonn, Germany, to the 29th session in Baku, Azerbaijan. It highlights the changes in the participation of government officials and the representation of different ministries, agencies, research organisations, and non-governmental organisations (NGOs). The annual COP is considered a key annual climate summit to assess the progress and make further improvements in responding to climate change; therefore, analysing the participation, structure, and role of delegations can help understand the level of engagement of a particular country in climate change mitigation. Japan's proactive and consistent involvement in the first three conferences resulted in the adoption of the Kyoto Protocol in 1997, the first international treaty setting an objective to reduce greenhouse gas concentration in the atmosphere. However, the level of ambition of the Japanese Government was not always equally high. The UNFCCC database enables us to analyse the involvement of different players throughout the history of Japanese participation in COP. The study finds that the number of Japanese delegations became bigger and more diverse in their profile over time. Even though attended primarily by the representatives of the Ministry of Environment and its predecessor Environment Agency and Ministry of Foreign Affairs, other ministries have also been involved in recent years. The latest delegations also include a higher share of researchers and

Paper ID	105
Author(s)	Laitpharlang Cajee
Title	Smelting of iron and its consequences on the natural environment in the Khasi Hills,

Meghalaya, India: A recollection of its historical past

Air, Humans, Greenhouse gas emissions, Kyoto Protocol, Paris Agreement

academicians, but NGOs and civil society share remains low.

Abstract

Keywords

Abstract

The Khasi Hills have a rich history of iron ore smelting dating back to around 1000 BCE. The Khasis who are the indigenous people of the region developed unique smelting techniques using local resources such as charcoal, limestone and iron ore. In the Khasi Hills, charcoal was the only fuel used for the entire process of iron smelting where the best charcoal was produced from the local oak species. In instances where there was a lack of hardwood other tree species were used for carbonization (Hooker, 1854). With the increase of iron production, trade flourished with neighbouring regions particularly to the plains of Bangladesh through Sylhet. Some of the important sites for smelting includes Mawphlang, Nongkrem and Cherrapunjee using traditional smelting techniques such as bloomer furnace which is a primitive technique and later on around 500 - 1500 CE by reduction process which involves the mixture of iron ore, charcoal and limestone. Written documents on this important economic activity were mentioned by P.R.T. Gurdon (1914) in his monograph on the Khasis. Smelting of iron ore brought about astounding changes to the natural environment through large scale deforestation, destruction of the natural habitat thereby bringing about disfiguring of the original landscape. Forest degradation is also caused through the extraction of iron ore from rock boulders leading to massive soil erosion.

Keywords	Khasis	indigenous		smelting	charcoal
	oak	deforestation	trade		

Paper ID	138
Author(s)	Chengxue Yang and Forrest Zhang
Title	Balancing Economic Development and Environmental Sustainability: Actor-Network Analysis
	of Rural Development in Dali, China

Abstract

The interaction between economic development and environmental sustainability in rural China presents complex challenges. Economic growth in rural areas tend to disproportionately benefit wealthier landowners and external actors, often at the expense of local communities. Subsistence farmers, in particular, face displacement, reduced land access, and weakened food security due to the expansion of tourism and commercial agriculture. In this context, achieving an equitable balance between economic advancement and environmental sustainability has become a critical policy challenge.

This paper examines this issue through two cases: Kejixiaoyuan and Liangdao. Kejixiaoyuan, run by a university research team, seeks to advance environmental mitigation and promote sustainable agricultural practices. In contrast, Liangdao is an organic agricultural product company running for more than two decades. Actor-Network Theory (ANT) is employed to understand the complex relationships of three key actors: government authorities, social actors, and local agricultural businesses. The government enforces stringent environmental regulations, compelling local stakeholders to prioritize subsistence agriculture over more economically viable plantations. Social actors aim to promote sustainable agricultural practices, conduct scientific research, and facilitate the dissemination of new technologies. Meanwhile, local agricultural businesses prioritize profit through agricultural production and tourism activities.

The paper argues for an integrated approach that reconciles economic and environmental objectives. While top-down policies are aimed at environmental protection, they often fail to account for local economic realities, thereby exacerbating financial challenges for smallholders. By examining the individual experiences, this paper illustrates the necessity of flexible policy frameworks that support both environmental sustainability and economic resilience in rural China.

Paper ID	292
Author(s)	Sanghee Bae
Title	Waste by the Numbers: Making Sense of Waste Crisis in South Korea, 1960s-1990s.
Abstract	

Abstract

The roots of contemporary global waste crises are often attributed to consumer capitalism and disposable material culture in the postwar era. While acknowledging these causes, this paper aims to complicate the master narrative by placing the waste problem in a locally specific context: Seoul in the 1960s to 1990s. In Seoul, solid waste discharged by residents was increasingly recognized as one of the most severe and worsening urban problems by the late 20th century. Beginning in the 1960s, urban planners and environmental engineers tried to estimate and predict the current and future amounts of waste production in Seoul to better understand and

remedy the Korean waste situation. In the absence of coherent data, faulty and scattered existing records on Seoul's waste were quantified, classified, and brought to order. These data were then utilized to accommodate the different prescriptive objectives of the government and engineering disciplines. In particular, the interpretation of waste statistics gradually shifted from reflecting the regional characteristics of South Korea in the early 1960s to revealing the universal problems of consumer society at large by the 1990s. Viable technological intervention changed with the interpretation of data from improving the collecting system to importing waste treatment technologies from abroad. By analyzing urban planners' and environmental engineers' technological reports, this study aims to show how quantifying and classifying practices of waste management implicate means to (de)politicize the waste management system and how they could be used to historicize the discourse around broader environmental issues today.

Keywords Waste, Urban Environment, Pollution, Quantification
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Paper ID	294
Author(s)	Jongmin Lee
Title	The Oil Crisis and the New Energy Policy in South Korea during the 1970s and 1980s
A1	

Abstract

After the first international oil crisis in 1973, countries around the world explored new measures to mitigate the economic and social challenges. This presentation aims to reveal the limitation of traditional perspectives on the oil crisis by looking at the diverse responses from government agencies, research institutes, and private associations.

Because most countries continued to rely on the major oil producers in the Middle East, government measures to diversify oil suppliers were not very effective. Many countries which tried to find new suppliers outside of the Middle East failed to create business with new oil producers in other parts of the globe. The dependency on Middle East oil continued as soon as the oil prices stabilized after some turmoil. Countries which have not produced oil began dreaming of oil exploration overseas. In addition to securing Middle Eastern Oil or finding new oil from foreign countries, the South Korean government initiated two new approaches. One was stockpiling crude oil and oil products. Another approach was implementing an energy saving policy. This presentation aims to understand the paradox in the ongoing risks of rising oil prices and new opportunities in the promotion of energy conservation and alternative energy research and development activities.

As we go through the climate crisis, this presentation will help us to understand how our responses to one crisis shaped our society and how we can prepare ourselves to tackle the next crisis.