

# **ENVIRONMENT AND ENVIRONMENTALISM IN EAST ASIA: SUMMARY REPORT**

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China Institute at the University of Alberta

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From June 4 to June 5, 2016 the Department of East Asian Studies and the China Institute at the University of Alberta hosted an interdisciplinary conference in Banff, Alberta to discuss challenges faces the countries of East Asia for environmental protection, sustainable development, and the future of environmental politics in the region. Nuclear scientists, sociologists, journalists, lobbyists, anthropologists and political scientists from around the globe came together to discuss such issues as air pollution, soil pollution, water pollution, grassroots social movements, media power and public opinion, policies to promote resilient development, and the costs of transitioning from fossil fuel-based energy production. This explicitly interdisciplinary conference approached environmental degradation as borderless and pollution as a regional and global challenge that will require the engagement of governments, corporations, social groups, activists and mass media.

The conference format consisted of four keynote addresses followed by research panels and roundtable discussions on sustainable and resilient development, nuclear energy, activism public opinion and environmental protectionism, technology and environmental protection, reporting environmental news, climate change, and intraregional collaboration and intra-regional information diffusion.

Professor Stevan Harrell, an anthropologist from the University of Washington, presented the first keynote titled *Is there an Environmental Kuznet's Curve for China: Evidence from Japan, Taiwan and Korea*. He discussed the potential utility of applying the Kuznet's curve to environmental protection in the East Asia region. The Kuznet's curve concept suggests that economic growth will lead to higher rates of inequality, a process that will reverse and contribute to lower rates of inequality at higher stages of development. Professor Harrell explored the applicability of the concept to environmental problems in Japan, Taiwan, China, and South Korea and argued that the concept is useful for types of pollution that are easily reversible in the short term. What he termed the "environmental Kuznet's curve" does not have the same predictive value when applied to types of resource degradation that are difficult to reverse, such as soil pollution or erosion. Dr. Harrell also considered whether Japanese and Korean data may help scholars to predict the readiness of China to address its environmental problems, suggesting that the PRC could readily act to reduce air pollution, as it represents a serious threat to public health and is relatively easy to ameliorate in the near term. The environmental Kuznet's curve may, however, present a moral hazard: The concept implies that developing nations will and should 'grow' themselves out of environmental degradation, rather than remediate its environmental destruction for the sake of environmental protection. Dr. Harrell questioned the utility and morality of such a concept.

Taiwanese journalist Dr. Ya-Lin Chen from Set TV gave the second keynote address concerning her experiences reporting on the Fukushima disaster in Japan. Dr. Chen suggested the disaster disproportionately affected the economically under-privileged and that these groups lacked the means to relocate their families despite

hazardous radiation levels. Dr. Chen questioned the arbitrary radiation thresholds set by Japanese central government as “safe” following the disaster, and argued that Tokyo failed to account for the high levels of radiation experienced in rural and less populated areas of Japan, which will likely remain contaminated with little hope of future restoration. Dr. Chen concluded her presentation by noting the divergence in the reactions of East Asian nations to Fukushima. Taiwan has set for itself the goal of going completely away from nuclear power, while South Korea and China continue to invest in nuclear power as an alternative to fossil fuel energies. While nuclear energy has potentially large environmental benefits for the reduction of carbon emissions, the clear and lasting legacy of a nuclear disaster has not been borne equally by all affected citizens; the environmental impact will extend far into the future. Dr. Chen concluded that, from her experience in Fukushima, nuclear power does not seem safe in densely populated Taiwan, which has a geological fragility similar to Japan’s north eastern coast.

Jeffrey Broadbent, a sociologist from the University of Minnesota, provided the third keynote by explaining the emergence of environmentalism in Japan and outlining the ways in which Japanese culture affects activism and policy deliberations. Drawing from his own extensive research in recent decades, Dr. Broadbent suggested that, generally speaking, the strength of a nation’s civil society strongly influences both the rate and efficacy of protests on environmental protection policy changes. Japanese civil society has had corporatist relationship to state actor and exhibited a close relationship with the ruling party, the business class, corporations and relevant ministries. These tightly woven fabric of networks have resulted in a relatively weak civil society and limited citizen influence over policy-making decisions. Environmentalism in Japan has relatively weak roots, but Japanese do value environmental quality and environmental protection, although they often balk at the high cost of improving the environment nationally or globally. Dr. Broadbent argued that this tension was manifest in the absence of effective protests following the Fukushima disaster: Japanese were horrified by the radiation, both from an environmental and a public health perspective, but disinclined to protest ineffectual or even harmful government policies. Going beyond the Japanese case, Dr. Broadbent suggested that East Asian states with strong civil societies (such as Taiwan) were more likely to enact environmental protection policies.

Sociologist Koichi Hasegawa of Tohoku University gave a final keynote presentation on the interaction between societal preferences and media coverage on climate change in Japan. In his presentation *Climate Change Politics in Japan*, Dr. Hasegawa argued that media coverage of climate change in Japan was focused on government initiatives and policy efficacy, rather than activism by civil society. Likewise, the media simultaneously overestimated the influence of the Kyoto Protocol and other national climate change initiatives, while underestimating voluntary action plans. While Japan was once a world leader in climate change policies, public support for action on climate change action has fallen. This is perhaps the result of a national focus on the Fukushima accident, as media coverage on climate change has decreased markedly since. Media coverage on climate change peaked during Japan’s

political engagement with the Kyoto Protocol in 1997, but has declined steadily. In recent years, nuclear energy and the voluntary action plan are the major strategies for ameliorating climate change, rather than global initiatives such as the Kyoto Protocol. Hasegawa attributed the paucity of Japanese media coverage on climate change to the country's relatively weak civil society and capture of the media by state "press clubs." The discussion following Dr. Hasegawa's presentation suggested the relationship between low civic engagement on environmental issues and low media coverage is not unique to Japan, and may occur in other East Asian societies, particularly in China, where the space for activism is heavily circumscribed.

Following the four keynote presentations, Chungho Kim of the University of Washington's Urban Planning and Design program, economist Shih-Jung Hsu of National Chengchi University, anthropologist Lengmeng Rovaniyaw of the University of Washington, and anthropologist Taiban Sasala of I-Shou University presented research on the topic of sustainable and resilient development. These panelists asserted that the challenge of resilient and sustainable development for communities in East Asia requires greater sensitivity to the intersection of traditional living and long-term adaptation to environmental changes. Although rural communities continue to have close relationships with their physical environment, the nature of economic development is often dominated by an emphasis on convenient services and infrastructural improvement, rather than environmental protection. This can lead to rural communities becoming more vulnerable to climate change-related catastrophe, such as flooding in mountainous Taiwan during typhoons. Moving forward, it is essential for rural communities to retain traditional elements of community engagement and self-sufficiency to craft long-term strategies for resilience in the face of environmental and social change.

Dr. Kim's presentation "Village Continuity, Transformation, and Adaptation for Sustainable Rural Development: Lessons from First Saemaul Village in Cheonan" described changes in infrastructure planning in the Korean Saemaul village, where planning since the 1970's has embraced traditional agricultural forms, in addition to modernized facility and road improvements which has allowed for more successful sustainable development than ever before. In the presentation "Community-based Conservation and Cultural Revitalization: The Case of the Rukai in Taiwan," Dr. Sasala commented on community-based conservation initiatives among the Rukai indigenous people in Taiwan. Rukai initiatives have drawn upon the interconnectivity of humans and the land and combined traditional hunting knowledge with modern mapping and digitization to create tribal mapping systems, which have been used to preserve historical knowledge of the land and to protect endangered flora and fauna. The presentation by Dr. Rovaniyaw contrasted the views of two Taiwanese rural communities on the issue of nuclear energy. She noted that the Paiwan indigenous people are strong supporters of nuclear energy, as their community benefits economically from providing waste storage to the rest of Taiwan. The Tao indigenous people, however, strongly opposes nuclear development, as they enjoy a close relationship with the land and have a deep seeded distrust of the Taiwanese government, stemming from the imposition of

nuclear waste storage under authoritarian rule. The differences between these indigenous groups' viewpoints demonstrate the tension present in Taiwanese aboriginal communities surrounding the issues of nuclear development and environmental justice.

The second roundtable discussed the future of nuclear energy in East Asia and included remarks by nuclear scientists Joo-hoo Whang of Kyung Hee University and Myung-jae Song of Seoul National University, anthropologist Lenglengman Rovaniyaw of University of Washington, Wei-chieh Lai of Green Citizens' Action Alliance, and sociologist Koichi Hasegawa of Tohoku University. These experts commented on the relative benefits and dangers of nuclear power, using South Korea, Japan, and Taiwan as the primary case studies. Joo-hoo Whang and Myung-jae Song recommended continued reliance on nuclear power as a low carbon energy source, while taking steps to reduce total energy demand. Dr. Song's presentation "The Challenges of Nuclear Power" outlined the challenge of addressing "nuclear-phobia" following the Fukushima disaster; he called for a clearer understanding of the science underlying nuclear energy programs as well as the promise of safe storage for nuclear waste. Wei-chieh Lai asserted that in the context of Taiwan, where the 4<sup>th</sup> Nuclear Power Plant has been constructed in the island's densely populated north, without becoming operational due to widespread public opposition, the risks of nuclear power clearly outweigh its benefits. The panel also debated whether Taiwanese government's commitment to becoming a nuclear-free country by 2020 is feasible, given Taiwan's concomitant goals of phasing out non-renewable energy sources.

The panel on activism, public opinion and environmental protection included political scientist Mary Alice Haddad of Wesleyan University, political scientist Iza Ding of Harvard University, Wei-Chieh Lai of Green Citizens' Action Alliance, and sociologist Hua-Mei Chiu of National Sun Yat-sen University. A common theme emerging from their presentations was that public opinion is extremely important for successful environmental activism in a context in which the interests of corporations and governments often intersect and overlap. Grassroots activism for the anti-pollution movements in Taiwan and Japan, and to a lesser extent in China, has pressured governments to include public preferences in policy making, but seldom affected real change. In China, the government typically responds symbolically to ameliorate public concerns but not substantively. Moving forward, the facilitation of public, corporate, and government engagement of environmental concerns could be essential for policy adaptation directed toward preservation of the environment in societies, such as those in East Asia, where citizens are accustomed to high rates of economic growth as well as increasingly supportive of environmental protection.

Dr. Haddad's presentation, "Environmental Advocacy: Insights from East Asia" introduced her ongoing research about environmental advocacy in the region. She argued that policymaking in East Asian countries, such as Japan and China, is network-based and characterized by multiple stakeholders: the interests of

businesses, government, citizen groups, and environmental researchers often converge in shared network connections. Moreover, successful environmental advocacy tends to focus on areas of convergence among actors in these networks—a trend that she argued compares to the experience of many countries outside the region. Iza Ding's research challenged the generalization of these findings to local China's environmental policy. Her research studied the symbolic responsiveness of local environmental agencies to public complaints related to high air and water pollution levels; Dr. Ding questioned whether government responsiveness had any long-term efficacy, when stakeholders in industry and government work together to incentivize lax environmental policy and environmental protection authorities stage phony responsiveness to serious environmental degradation.

Wei-Chieh Lai's presentation examined the intersection of Taiwan's nuclear and environmental politics. He noted that in Taiwan low rates of GDP growth have contrast with increasing rates of energy consumption. Moreover, average Taiwanese salaries and the levels of self-reported happiness have both decreased. Mr. Lai argued that this has prompted an emphasis among activists to encourage policy makers to more carefully consider who benefits from development and who shoulders the costs. Taiwan's environmental activists are calling for more redistributive justice as well as societal movement from a 'brown' economy to a 'green' economy. Dr. Hua-Mei Chiu analyzed the anti-pollution movements in the city of Kaohsiung as examples of effective citizen responses to environmental degradation, resulting from state-led development plans. Grass roots anti-pollution demonstrations in democratic Taiwan have repeatedly led to legal change to address local concerns.

Joanna Lewis of Georgetown University's Science, Technology, and International Affairs Program, political scientist Xiaobo Zhang of the University of Alberta's China Institute, and urban planning and design specialist Daniel Abramson of the University of Washington contributed to the technology and environmental protection roundtable. Panelists were on the whole optimistic about the future of renewable energy production and use in China, where renewable energy represents both an opportunity for reducing domestic pollution and for selling products to a global market. Panelists asserted that China will continue to invest in renewable energy and that its efforts to harness wind and solar energy have made it a global leader, because of rapid Chinese adoption of European and American technologies. In 2015, Beijing's commitment to green technologies resulted in record investments. Further, due in part to high-level political support for a greener society, carbon emissions within China appear to be decreasing. Dr. Abramson noted that in rural China, resilient development initiatives are being successfully implemented in such places as the Chengdu plain and Dujiangyan Irrigation District, combining community-based, collective agriculture with sustainable irrigation. China has already become the world's leader in the renewable energy sector and has valuable experiences to share with the world for the promotion of sustainable agriculture.

In her presentation, “China’s Role in Global Clean Energy Technology Development and US-China Relations,” Dr. Lewis highlighted collaborative efforts between China and the US to improve clean energy production, as a bright spot in an otherwise tension-fraught bilateral relationship. Using the geography of patents filed, her research shows that China leads the world in research and development related to biofuels, wind power, and solar energy. Dr. Zhang’s presentation “China’s Renewable Energy and Clean-Tech Market” supported Dr. Lewis’ optimistic outlook on China’s future role as a clean energy leader, arguing that China’s capacity for renewable energy production and demand for green energy use will continue to grow.

Participants on the environmental media panel consisted of Qiang Xiao of the School of Information at University of California at Berkeley, communication scholar Chien-san Feng of National Chengchi University, Dr. Ya-Lin Chen of Set TV and Rupert Wingfield-Hayes, Tokyo correspondent for British Broadcasting Corporation. These experts addressed the obstacles facing journalists covering environmental news and the challenges of handling market pressures to produce sensationalized reports. Media require corporate advertising revenue and sensationalized environmental coverage appeals to consumers and advertisers alike, a trend that particularly clear in the aftermath of the Fukushima disaster. Panelists agreed that the media has the ability and capacity to change political and social attitudes on environmental issues, although it is far easier to do so in countries with a strong civil society.

In his presentation “Partisan Press and Environmental Coverage in Taiwan: A Casual Comparison,” Dr. Feng argued that partisanship among media organizations has led to reduced mistrust of mainstream media reports. As a result, there has been a huge shift in Taiwan away from traditional media to online media which are perhaps erroneously believed to be less biased. Speaking about related issues in the Chinese context, Qiang Xiao suggested that despite massive government suppression of information, environmental news has proven relatively free from censorship, as the result of high demand among the citizenry for accurate information. Independent producers of environmental documentaries, such as former CCTV journalist Chai Jing, have reached large audiences prior to having their reports removed from the public sphere. Rupert Wingfield-Hayes described his experiences utilizing social media produced by Chinese protesters of a local government-sponsored land seizure to produce ground-breaking news coverage. A video he received provided proof of state-sanctioned violence, and resulted in a massive inquiry by the central government after his reporting caused international embarrassment. The proliferation of digital media among concerned citizens in China and elsewhere has proven valuable for mainstream media seeking to increase transparency related to environmental problems and to improve government responsiveness.

The climate change panel, moderated by Dr. Emily Yeh of the University of Colorado at Boulder and Dr. Ian Urquhart of the University of Alberta compared the regional effects of climate change in Tibet and Alberta. Drs. Yeh and Urquhart discussed the vulnerability of both regions to climate change and extreme weather patterns.

Alberta relies heavily on energy extraction, agriculture, and forestry, whereas the nomadic herding communities in Tibet are intimately connected to their increasingly fragile landscape. Despite great differences in economy and culture, the problems facing Alberta and Tibet speak to the extent to which climate change is a global threat. Energy extraction in Alberta has proven vulnerable to extreme weather patterns such as the 2016 wildfires in Fort McMurray, and pastoral residents of the Tibetan plateau have suffered in recent years from the uncharacteristic combination of heavy snowstorms and rapid melt off.

The conference's final panel on intraregional collaboration and information diffusion among East Asian countries included anthropologist Rob Effird of Seattle University, Joanna Lewis of Georgetown University, Jeffrey Broadbent of the University of Minnesota, lobbyist Florence Lowe-Lee of Global America Business Institute, and Shih- Jung Hsu of National Chengchi University. Dr. Effird's presentation "Nature Schools and China's Environmental Education" outlined the objectives of Gaia Nature Schools, which are a rare collaborative effort between China and Japan to train education professionals. Panelists emphasized that in a globalized world, no community or country can operate independently; the environmental policies of one state will affect others, especially among densely populated states in close proximity as is the case for much of East Asia. Multilateral cooperation, particularly among developed and developing nations, is essential for addressing the threat of climate change, pollution reduction, and adaptation to extreme weather. East Asian states can act as global leaders but they must do much more to work in concert by highlighting common problems and innovative solutions and by drawing on diverse inputs from state and societal actors. The successes (or failures) of these nations to address growing environmental concerns will have global implications extending far beyond East Asia.