

Renewable Energy and Climate Cooperation: A Case for Sweden and Japan

Virtual Symposium

*Jointly Organized
By the
Institute for Security and Development Policy (ISDP), Sweden
&
Kajima Institute of International Peace (KIIP), Japan*

**25-26 November 2021
Thursday & Friday**

Renewable Energy and Climate Cooperation: A Case for Sweden and Japan Virtual Symposium

Climate change is increasingly recognized as one of the biggest threats facing humankind. Increasing temperatures caused primarily by human emissions of greenhouse gases, rising water levels, and other extreme weather events now pose a clear and immediate security threat to nations across the world. They have led to issues like mass displacement, resource scarcity, and climate change induced droughts, diseases and economic disruptions, which only exacerbate international frictions and conflicts.

The burning of fossil fuels to meet global energy demands, in particular, forms a key factor contributing to global warming. The need to decarbonize the world's energy systems is therefore urgent, and the pressures on governments and companies to act has grown as citizens and consumers worldwide demand change. Inexhaustible and low-carbon emitting renewable energy sources, such as wind, solar and hydropower, offer an excellent opportunity to mitigate climate change. Nevertheless, such mitigation measures also risk to worsen other sustainability challenges, highlighting the complexity in managing climate change. The significant need for land areas for low power dense renewables can destroy habitats and impact wildlife, thus threatening biodiversity. Japan and Sweden, both advanced countries and regional leaders in climate change and technological innovation, have much to benefit from cooperating in this area.

Climate change knows no national boundaries and tackling it requires the collective cooperation of multiple actors across the world. Japan and Sweden can establish a strong cross-continental special partnership to take forward the action in the domain. They can not only learn from each other's experiences but also leverage their potentials and advantages to initiate Asia-Europe cooperation in various sectors, especially renewable energy.

Beyond governments and multilateral institutions, the private sector must play an important role in driving the transformation towards green economies and mobilizing capital for green investments. Incentivizing businesses to adopt renewable energy is therefore key. Public actors can utilize policy instruments such as subsidies for technological developments and create market-based mechanisms, including carbon taxes and cap-and-trade regimes. For companies, the potential profit in promoting technologies that can help mitigate climate change risks and aid in climate change adaptation is an important motivator. Financial instruments, such as green equity and green bonds, have also increased in popularity among investors in recent years, opening a financial market for environmentally friendly economic activities. Such tools have the potential to enable investors and consumers to hold companies accountable for their climate impact. Sustainability accounting and non-financial reporting have allowed businesses to uncover the costs of unsustainability and show the benefit of switching to more climate-friendly practices. The development and proliferation of renewable energy therefore requires the cooperation and collaboration between various actors across multiple sectors, where Japan and Sweden can learn a lot from their respective experiences.

Renewable energy development is especially important for Japan, an island country with low energy self-sufficiency and high energy needs for its powerful economy. Notably, the 2011 Fukushima Nuclear Disaster made renewable energy take on an even more prominent role in Tokyo's energy consideration. Although renewables are limited in Japan's current energy mix, Japan has recently stepped up its climate commitments, with an ambitious target of 46% reduction of greenhouse gas emissions by 2030, and a net zero-emissions goal by 2050. Japan's recent Green Growth strategy has in particular emphasized the further development of offshore wind power and hydrogen energy as important elements in Japan's clean energy transition. Tokyo's hosting of the 2019 TCFD (Task Force on Climate-related Financial Disclosures) Summit, and the Joint Crediting Mechanism promoting the diffusion of low-carbon and decarbonizing technologies, offer good examples of Japan supporting companies globally in transitioning away from fossil fuels. Should Japan make significant headway in achieving its admittedly ambitious goals and further commit to the sustainability agenda, it can have a great impact as a climate leader in Asia, in particular based on its status as the world's third largest economy and a global source of investment and development aid.

Sweden is already recognized as a global leader in decarbonization and for its successes in adopting renewable energy, with just under 56% of energy consumption coming from renewable energy sources in 2019. While hydro-power and nuclear energy have constituted the main sources in energy generation (accounting for roughly 40% each), biofuels play a significant role in the transportation sector. Biomass is also increasingly highlighted as a potential replacement of fossil fuels in achieving green industrial transformation in various sectors, although short-term carbon dioxide emissions need to be considered. Sweden has also been a front-runner in introducing legislative and policy frameworks shaped by international, EU and national frameworks, which have promoted innovation and technology for green growth and sustainable urbanization. Sweden therefore provides a valuable model for other countries, such as Japan, aiming to deepen its use of renewables.

Although Japan still has a long way to go in adopting renewable energy in its domestic energy mix, it is a global leader in renewable technology innovation. Japan placed third in the 2019 ITIF Global Energy Innovation Index and leads the way globally in patents for solar and fuel cell technologies. Swedish companies have been pioneers in introducing green stocks, with the world's first Green Equity Framework being launched in 2020. In recent years, Swedish industries have also focused on developing "green steel" made without using coal, with the first batch shipped earlier this year. The potential for Japan and Sweden to work together on finding innovative solutions and deepening research on renewable technologies is therefore great.

ISDP and KIIP aim to bring together expertise from both Japan and Sweden with decision makers from both the public and private spheres in this virtual symposium, to facilitate knowledge sharing and discussions about renewable energy and climate cooperation between the two countries.

Research Questions

What are the lessons that Sweden and Japan can draw from each other's actions and efforts in the climate change and renewable energy sector? In particular, what are examples of technical and legislative achievements that could be potentially implemented in the other country with success?

How can Japan and Sweden capitalize on their strengths to contribute to global climate action and the transnational regulatory agenda to tackle climate change? Specifically, how can Japan and Sweden enhance renewable technologies and renewable energy cooperation to achieve their climate targets?

What roles can the private sector play in mitigating climate change? How can companies profit from shifting towards renewables and sustainability? Moreover, how can the private sector be incentivized to focus further on renewables?

What are the current limitations and obstacles in using renewables to fuel the private sector? And how can industries and governments overcome these obstacles?

What are the ways in which public-private partnerships can help take forward climate action? What are the potential benefits and obstacles in creating private-public synergy for industrial transformation/sustainability?

What are the opportunities for cooperation and collaboration between the private sector of Japan and Sweden? What mechanisms can be introduced to bolster cooperation between the Japanese and Swedish industries?

Themes

Renewable Energy and the Need for International Cooperation

The State of Renewable Energy in Sweden

Renewable Energy Cooperation, Green Growth and the Private Sector

Climate Action & Cooperation

Role of Institutions, Climate Cooperation and the Debates in Sweden and Japan

Symposium Program

Day-1 (Thursday), 25 November 2021

17:00-21:00 Japan Time (JST)/ 9:00-13:00 Sweden Time (CET)

Inaugural Session

17:00-17:25 JST/ 9:00-9:25 CET: (25 mnts)

Welcome Note: Mahima Duggal, Associated Research Fellow at ISDP

Chair: Amb. Lars Vargö, Distinguished Fellow & Head of ISDP Stockholm Japan Center

Opening Remarks (5 mnts each):

Niklas Swanström

Director & Co-Founder, ISDP, Stockholm

Nobuyuki Hiraizumi,

President, KIIP, Tokyo

Keynote Speech

Hydropower: Renewable Energy with a Cost

Ashok Swain

Professor and Head of Department of Peace and Conflict Research

UNESCO Chair of International Water Cooperation, Uppsala University

Session-I: Renewable Energy and the Need for International Cooperation

17:25-18:25 JST/ 09:25-10:25 CET: (60 mnts)

Chair: Amb. Lars Vargö, Distinguished Fellow & Head of ISDP Stockholm Japan Center

Speakers (15 mnts each):

Geopolitics of Renewable Energy and Transatlantic relations

Jeremy Maxie

Associate, Strategika Group Asia Pacific

The European Union's Climate Cooperation with the Indo-Pacific and the Geopolitics of Renewable Energy

Dhanasree Jayaram

Assistant Professor, Manipal Academy of Higher Education

How to Use Renewable Energy?: A Cross-Continental Experience

Ashis Basu

Corporate Executive & Climate Expert, Canada

Panel discussion among speakers and discussant; Q&A with audience

Discussant: Yasiru Ranaraja

Founding Director, Belt & Road Initiative Sri Lanka (BRISL)

Intermission (10 mnts)

Session-II: The State of Renewable Energy in Sweden

18:35-19:35 JST/ 10:35-11:35 CET: (60 mnts)

Chair: Tatsuo Shikata, Associate Researcher, Kajima Institute of International Peace, Tokyo & Company Fellow, Mitsui & Co., Ltd.

Speakers (15 mnts each):

Leading the Path towards a Fossil-free Society through Biofuel Policies in Sweden

Cecilia Higa

Project Manager, Swedish Bioenergy Association (Svebio)

Legal Preconditions for Wind Power Development in Sweden: Issues of Land-use, Opposing Interests and Potential Goal Conflicts

Maria Pettersson

Chair Professor, Luleå University of Technology

Can agrivoltaics solve the solar energy and farming conflict?

Bengt Stridh,

Senior Lecturer, Mälardalen University

Panel discussion among session speakers and discussant

Discussant: Lydia Powell

Distinguished Fellow, ORF Centre for Resources Management

Intermission (10mnts)

Session-III: Renewable Energy Cooperation, Green Growth and the Private Sector

19:45-20:45 JST/ 11:45-12:45 CET: (60 mnts)

Chair: Maria Pettersson, Chair Professor, Luleå University of Technology

Speakers (15 mnts each):

Climate-resilient trade and supply-chain management: the role of public and private actors in jointly governing transboundary climate risks

Adis Dzebo,

Research Fellow, Stockholm Environment Institute

The role of mining in green energy system and the paradox of its negative impact on the environment

Michael Goodsite

Professor, University of Adelaide / Non-Resident Senior Research Fellow, ISDP

Green steel from renewables - development and outlook in Sweden

Max Åhman,

Associate Professor, University of Lund

Panel discussion among speakers and discussant; Q&A with audience

Discussant: Hajime Kobayashi

Partner, Gemini Strategy Group

Wrap-up: Mahima Duggal, Associated Research Fellow, ISDP, Stockholm

Day-2 (Friday), 26 November 2021
17:00-20:00 Japan Time (JST)/ 9:00-12:00 Sweden Time (CET)

Welcome Note: Peter Adolfsson, Intern, ISDP Stockholm Japan Center

Session-IV: Climate Action & Cooperation

17:10-18:10 JST/ 9:10-10:10 CET: (60 mnts)

Chair: Jagannath Panda, Associated Senior Research Fellow, ISDP, Stockholm

Speakers (15 mnts each):

Reflections on COP 26

Sandra Cassotta

Associate Professor in International, Environmental and Energy Law, Aalborg University
Associated Senior Research Fellow, ISDP

Community Energy in the 2050: Energy Transition of the EU and Japan

Marciej M. Sokolowski

Visiting Researcher, University of Tokyo / Assistant Professor, University of Warsaw

Climate Security and Japan-Sweden Cooperation

Takashi Sekiyama

Associate Professor, Kyoto University

Panel discussion among speakers and discussant; Q&A with audience

Discussant: Mahima Duggal

Associated Research Fellow at ISDP

Intermission (10 mnts)

Session-V: Role of Institutions, Climate Cooperation and the Debates in Sweden and Japan

18:20-19:20 JST/ 10:20-11:20 CET: (60 mnts)

Chair: Svetlana Sabelfeld, Researcher at Gothenburg Research Institute, University of Gothenburg

Speakers (15 mnts each):

Swedish Renewable Energy Policy as a part of Swedish Climate Policy

Bengt Johansson

Associate Professor in Environmental and Energy Systems Studies, University of Lund

International Cooperation, TCFD and Corporate Governance

Merlin Linehan

Risk Manager, European Bank for Reconstruction and Development (EBRD)

Local Initiatives to Overcome Green vs Green Conflicts Related to Renewables

Noriko Okubo

Professor, Osaka University

Session-V: Role of Institutions, Climate Cooperation and the Debates in Sweden and Japan

Panel discussion among speakers and discussant; Q&A with audience

Discussant: Masayuki Komatsu

President, Ecosystem Research Institute / Visiting Researcher, Kajima Institute of International Peace, Tokyo, Japan

Concluding Panel Discussion: The Way Forward for Sweden-Japan Cooperation

19:20-20:00 JST/ 11:20-12:00 CET: (40 mnts)

Chair: Mahima Duggal, Associated Research Fellow, ISDP, Stockholm

Final comments by speakers (3-5 mnts each)

Panel discussion (10 mnts)

Closing Remarks (5 mnts each):

Niklas Swanström

Director & Co-Founder, ISDP

Nobuyuki Hiraizumi,

President, KIIP

Vote of Thanks: Representatives from KIIP and ISDP

Speakers' Information

Bios & Photos

Abstracts

Chair Inaugural Session
Chair Session I

Lars Vargö
Distinguished Fellow &
Head, Japan Center, ISDP, Stockholm



Dr. Lars Vargö is former Swedish Ambassador to Japan (2011-14) and South Korea (2006-11). He holds a Ph.D. in Japanese studies (history) from the University of Stockholm (1982). He graduated from Uppsala University 1972 with a major in sinology. In 1972-76 he was a repeat Mombusho scholar at Kyoto University. As a diplomat Vargö has returned to Japan four times, but has also served in Libya, Lithuania and the United States. 2001-2005 he served as Ambassador and Head of the International Department of the Swedish Parliament.

Opening & Closing Remarks

Niklas Swanström
Director & Co-Founder, ISDP, Stockholm



Dr. Niklas Swanström is Director of the Institute for Security and Development Policy, and one of its co-founders. He is a Fellow at the Foreign Policy Institute of the Paul H. Nitze School of Advanced International Studies (SAIS) and a Senior Associate Research Fellow at the Italian Institute for International Political Studies (ISPI). His main areas of expertise are conflict prevention, conflict management and regional cooperation; Chinese foreign policy and security in Northeast Asia; the Belt and Road Initiative, traditional and non-traditional security threats and its effect on regional and national security as well as negotiations. His focus is mainly on Northeast Asia, Central Asia and Southeast Asia.

Opening & Closing Remarks

Noboyuki Hiraizumi
President KIIP, Tokyo



Noboyuki Hiraizumi is the President of the Kajima Institute of International Peace and Director of Kajima Corporation. Having received his Bachelor of Arts in Commerce from Waseda University in Tokyo, he attained an MBA from the Colgate Darden School of Business Administration at the University of Virginia in Charlottesville, USA. As a member of the Kajima family, Hiraizumi has served at various positions within the Kajima Corporation for the past 30 years. From 2005, Hiraizumi briefly crossed over to the public sector and served a two-year stint at the Ministry of Finance as Principal Economist in the Research Department of the Ministry's Policy Research Institute, with a particular interest in earthquake insurance schemes. He has headed the Kajima Institute of International Peace since 2015.

Keynote Speaker

Ashok Swain

Professor and Head of Peace and Conflict Research &
UNESCO Chair of International Water Cooperation
at Uppsala University, Sweden



Ashok Swain is a Professor and Head of Department of Peace and Conflict Research and UNESCO Chair of International Water Cooperation at Uppsala University, Sweden. Swain received his Ph.D. from the Jawaharlal Nehru University, New Delhi, in 1991, and since then, he has been teaching at the Uppsala University. Swain has written extensively on new security challenges, international water sharing, environment, conflict and peace, and democratic development issues. He has also worked as a consultant on environment, water, and development issues for various UN agencies, OSCE, NATO, EU, IISS, Arab League, OXFAM, Governments of Sweden, Netherlands, UK, and Singapore

Abstract: Hydropower: Renewable Energy with a Cost

Solar and wind energy have become the primary focus of the world's transition to a low-carbon world in the past years. Despite that, hydropower continues to remain a cornerstone of renewable energy in many regions. Hydropower is considered a clean, renewable, and climate-friendly source of energy. It contributes 16% of the world's generated electricity and about 70% of renewable electricity. While hydropower can help avoid greenhouse gas emissions and with that global climate change by reducing the world's dependence on fossil-fuel-based energy generation, its production can also be affected due to climate-change-induced changing rainfall and snow-melting patterns. Claims are that the overall impact of climate change on existing hydropower generation will be limited. Given all these, there has been a reemergence of massive interest in different parts of the developing world to building large dams and producing hydropower. However, given the past experiences about the large dams, careful attention is necessary to mitigate the substantial environmental, social, and economic costs.

First Speaker Session I

Jeremy Maxie

Associate, Strategika Group Asia Pacific



Jeremy Maxie is an independent researcher and consultant with over fifteen years experience advising public and private clients on the nexus of energy, geopolitics, geoeconomics, and political risk. His past affiliations include Strategika Group Asia Pacific, Longview Global Advisors, the Economist Intelligence Unit, and PFC Energy (acquired by IHS). His writings have been published by Forbes, The Diplomat, East West Institute (EWI), 9DashLine, National Bureau of Asian Research (NBR), and Center for Strategic and International Studies (CSIS). Currently based in San Jose, California, he has a JD from Indiana University Robert H. McKinney School of Law and previously served in the United States Marine Corps.

Abstract: The Geopolitics of Renewable Energy and Transatlantic Relations

Transatlantic cooperation on renewable energy (and climate change), while seemingly technocratic in nature, will occur in the context of US-China strategic rivalry which will drive, shape, and constrain the scope and trajectory of possibilities. This emerging structural and systemic-level conflict will directly affect Transatlantic and US-Japanese cooperation as well as EU-Japanese cooperation indirectly. At root is strategic competition for the commanding heights of the global economy along with elevated concerns over national economic competitiveness and economic security. These concerns are strongly manifested in a growing emphasis on the security and resiliency of supply chains particularly as it relates to critical materials and advanced dual-use technologies. Therefore, bilateral and multilateral cooperation with the US or China on renewable energy and climate change risk being subsumed under, rather than compartmentalized from, this larger geostrategic and geo-technological competition.

Although Sino-American rivalry presents a considerable challenge to Swedish and Japanese economic statecraft and climate diplomacy, it also provides a strategic opportunity for Sweden and Japan to work together to triangulate between the great powers to facilitate global cooperation on renewable energy (and climate change). An alternative approach, or rather a parallel track, may assume that deep and mutually beneficial cooperation with China on renewable energy and climate change is unlikely to be realized. In this scenario, the optimal strategy for Sweden and Japan would be to prioritize close coordination with other like-minded partners on renewable energy cooperation and supply chain resiliency while selectively engaging China with the understanding that China is a systemic rival. Both approaches require strategic foresight grounded in a realistic assessment of the geopolitical, geoeconomic, and geo-technological change that is being driven by protracted Sino-American rivalry.

Second Speaker Session I

Dhanasree Jayaram

Assistant Professor,
Manipal Academy of Higher Education



Dr. Dhanasree Jayaram is an Assistant Professor, Department of Geopolitics and International Relations, and Co-coordinator, Centre for Climate Studies, Manipal Academy of Higher Education (MAHE), Karnataka, India. She is also a Research Fellow, Earth System Governance; Member, Climate Security Expert Network; and Member, Planet Politics Institute. She holds a PhD in Geopolitics and International Relations from MAHE. She pursued a visiting fellowship (Erasmus Mundus – short-term PhD) at Leiden University, the Netherlands during 2014-15; and a postdoctoral fellowship at the University of Lausanne, Switzerland, under the Swiss Government Excellence Scholarship during 2018-19. She managed a project of adelphi (Berlin) on “Climate Diplomacy”, sponsored by the German Federal Foreign Office during 2015-20. She is the author of “Breaking out of the Green House: Indian Leadership in Times of Environmental Change” (2012), and “Climate Diplomacy and Emerging Economies: India as a Case Study” (2021).

Abstract: The European Union’s Climate Cooperation with the Indo-Pacific and the Geopolitics of Renewable Energy

The European Union’s climate cooperation with the Indo-Pacific countries is on the rise in light of the growing push for climate action at the international level. The Indo-Pacific region is a diverse conglomeration of states and other actors with varied interests in terms of climate vulnerabilities and developmental requirements. Hence, it is noteworthy that the EU’s Indo-Pacific strategy has green transition mentioned as one of the seven priority areas, thereby emphasizing the central role of renewable energy in this equation. Under the Indo-Pacific strategy, countries such as Sweden and Japan can upscale climate cooperation through their existing technological expertise and capacities in the renewable sectors – translating into broader cooperation with the other major like-minded partners such as India, Australia, Singapore, etc. In this context, the presentation will focus on the EU’s Indo-Pacific strategy and the relevance of renewable energy as a tool for enhancing strategic cooperation in the region. It will also unpack the geopolitics of renewable energy in the Indo-Pacific, including the domination of China in supply and mineral value chains, and its implications for international and regional climate cooperation as well as the push for partnerships in R&D in sustainable and resilient supply chains.

Third Speaker Session I

Ashis Basu

Corporate Executive & Climate Expert



Seasoned corporate executive, with over forty years' experience, in multidisciplinary roles, across three continents. In the past ten years, focus, on climate change, its effects, mitigating factors, and solutions. While working with one of Canada's leading R&D companies in the Li-Ion battery segment, focused on the use of batteries as storage for electricity generated by wind, solar and hydro. The potential is vast, and now offer consultancy services to start-ups.

Abstract: How to Use Renewable Energy? A Cross-Continental Experience

Renewable energy comes in various forms, wind, solar, hydro, hydrogen, Li-Ion batteries, and other experimental technologies. Not all forms can be used effectively in all countries across continents, for instance, solar is perfect in regions with abundant sunshine. Likewise hydro-electric power is appropriate for regions with large rivers, but caution must be taken not to destroy the ecology and geological structures. My presentation will focus on the use of renewable energy in different continents across all regions of the planet.

Discssant Session I

Yasiru Ranaraja

Director, Belt & Road Initiative Sri Lanka
(BRISL)



Yasiru Ranaraja is an independent researcher on maritime affairs and BRI development. He graduated from Dalian Maritime University, and in 2016 was awarded the Chinese Government Scholarship to complete a master's program on Environment & Natural Resources Protection Law at Ocean University of China.

Chair Session 2

Vote of Thanks

Tatsuo Shikata

Associate Researcher, KIIP, Tokyo

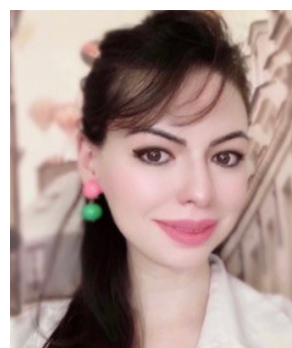


Tatsuo Shikata graduated from Keio University with his major of international economics in 1977. He joined Mitsui & Co., Ltd. in 1977 and retired from it in 2015. During his tenure he was engaged in trade, investment, management, etc., and stayed in New York, Toulon and Singapore. He joined Japan Forum on International Relations and Japan Institute of International Affairs in 2015. He is serving as Head of Kajima Joint Study on Indo-Japan Cooperation and is also coordinating ISDP/Kajima Joint Study on Climate Change as an associate researcher of Kajima Institute of International Peace.

First Speaker Session II

Cecilia Higga

Project Manager, Swedish Bioenergy Association
(Svebio)



Dr. Cecilia Higa is a Project Manager at the Swedish Bioenergy Association (Svebio), working with multidisciplinary projects on bioenergy together with international agencies, consultancies and universities, globally. Her expertise is on bioenergy, biofuels and the coalition formation process of energy policies. She holds a Ph.D. in Energy System Planning by the School of Mechanical Engineering at the University of Campinas in Brazil, including a one-year period at the School of Industrial Engineering and Management (ITM) at KTH in Sweden. Also, she has an MBA in Strategic Planning and Business by the School of Management at Kagawa University, in Japan. Occasionally, she is a coach of new students and a lecturer in energy policy topics at KTH.

Abstract: Leading the Path towards a Fossil-free Society through Biofuel Policies in Sweden

Sweden is a recognized global leader in decarbonization, being ahead of the European Union (EU). In the transport sector, the idea of replacing fossil fuels by biofuels is old and established. As a consequence, Sweden has one of the highest proportion of biofuels within this sector, having a versatile and dynamic market. Biofuels can play an important role in achieving emission reduction goals. In addition, by using an increased proportion of biofuels, several climate benefits are reached. In this presentation, we will briefly describe some of the policy instruments applied in Sweden for promoting biofuels, considering the demand and the supply side. These policies were fundamental to increase the use of biofuels in the transport sector and can inspire other countries to follow a similar path.

Second Speaker Session II
Chair Session III

Maria Pettersson

Professor, Luleå University of Technology



Professor Maria Pettersson, LL.D. and M.Sc in Economics, is specialised in environmental and natural resources law. At the center of Pettersson's research is the function of law in relation to the management and utilization of natural resources. Examples of Dr. Pettersson's research areas include comparative law, renewable energy development, e.g. wind- and hydropower; mining; forest governance, including water issues; and biodiversity protection. A special focus is on permit processes and the appropriateness of different types of environmental requirements and conditions for permit, including implementation and use of limit values and standards. Prof. Pettersson is also responsible for the master's program in Environmental and Natural Resources law at Luleå University of Technology.

Abstract: Legal preconditions for wind power development in Sweden: Issues of land-use, opposing interests and potential goal conflicts

This presentation covers a description of the rules that form the basis for the examination and assessment of permit for environmentally hazardous activities such as wind power installations. This includes issues of land use and the function of intended conflict resolution mechanisms, as well as a brief review of case law in order to concretize the legal preconditions for establishing wind power in Sweden.

Third Speaker Session II

Bengt Stridh

Senior Lecturer, Mälardalen University



Dr. Bengt Stridh has been working for more than 15 years with photovoltaics (PV) systems at ABB Corporate Research until 2018. Since 2012 part time as researcher and since October 2018 full time as senior lecturer at Mälardalen University, performing research and education in solar energy. The research has been focused on operation, simulation, and evaluation of PV systems, including economy, regulations and support systems for PV. He is one of the Swedish representatives in IEA PVPS Task 13 on Performance and Reliability of Photovoltaic Systems since 2011 and since 2015 also in IEA PVPS Task 15 on Enabling Framework for the Acceleration of BIPV.

Abstract: Can agrivoltaics solve the solar energy and farming conflict?

The electricity use in Sweden today is the same as 30 years ago. However, looking 30 years ahead it is forecasted that the electricity use can be doubled due to need for electric vehicles, industry replacing fossil energy with hydrogen produced by electrolysis, server centers and battery factories. An important question is how and where we can produce the additional electricity needed. Efficient use of land will be of vital importance. Solar parks on agriculture land gives a conflict between food and electricity production. The solution can be agrivoltaics, where solar parks and agriculture use the same land. The double use of land could help to solve the conflict between agriculture and electricity generation.

Discussant Session II

Lydia Powell

Distinguished Fellow, ORF Centre for Resources Management



Ms Powell works on policy issues in energy and the environment primarily in the Indian context. Her current interests include energy access, carbon constraints on energy use, clean coal & natural gas for energy and environmental security. She is currently with the Observer Research Foundation, New Delhi. Earlier she has worked for Norsk Hydro and for Orkla, two of Norway's largest conglomerates whose interests include energy. Ms. Powell has three Post Graduate Degrees - two on Energy Management from Norway and one in Solid State Physics from India.

First Speaker Session III

Adis Dzebo

Research Fellow, Stockholm Environment
Institute (SEI), Stockholm



Adis Dzebo is a Research Fellow at the Stockholm Environment Institute (SEI). His research focuses on global and transnational governance, particularly with regard to climate change adaptation. He is particularly interested in effectiveness and legitimacy of climate governance across borders. He is currently in the process of finalizing his PhD on this topic at Utrecht University. Adis also works with the intersection between climate change and sustainable development, focusing on how countries can overcome incoherence in national implementation of the Paris Agreement and the 2030 Agenda. He is also the lead developer of NDC-SDG Connections, an online tool that connects climate action to the Sustainable Development Goals.

Abstract: Climate-resilient Trade and Supply-chain Management: The Role of Public and Private Actors in Jointly Governing Transboundary Climate Risks

Climate-resilient trade and supply-chain management: the role of public and private actors in governing transboundary climate risks. Stronger interconnections between people, ecosystems and economies in a globalised world are changing the scope and nature of global environmental governance. One area where this is becoming increasingly evident is climate change, where there is a growing recognition that climate risks can be transboundary in nature, crossing international borders as people, goods, and capital do. Climate change impacts around the world are already creating cascading risks that intersect with trade patterns and international supply chains. These risks can reverberate across the global economy and pose a growing challenge for both national governments and private supply-chain actors. Traditional approaches to managing trade risk, such as substitution and diversification, will be ineffective in a world that is facing accelerating multiple climate change impacts simultaneously. Assessing, managing, and reducing these risks will require a cooperative multilateral approach. Focusing on agricultural supply-chains, this presentation will show how Transboundary Climate Risks (TCRs) are distributed via international trade and discuss who should be responsible for the governance of TCRs.

Second Speaker Session III

Michael Goodsite,

Civil and Environmental Engineering Professor, University of Adelaide / Non-Resident Senior Research Fellow, ISDP



University of Adelaide Professor Michael Goodsite, MBA, PhD is a non-resident senior research fellow of ISDP and a fully chartered civil- and environmental engineering full professor and engineering executive. He is the research director for the 2022 Australian National Cooperative Research Centre (CRC) Bid 'Copper For Tomorrow' and Bid Sponsor of the 2022 Hydrogen CRC Bid (and sponsored the successful 2020 HiLT CRC). He has public and private leadership and governance experience in many different countries, for example, Chief Operating Officer and Executive Vice-President for Regional Development for one of the five regions of Denmark. A former military officer, he was Director of the US Army Cyber Counterintelligence Activity and a Liaison Officer to a Japanese Test Program.

Abstract: The role of mining in green energy system and the paradox of its negative impact on the environment

Copper is essential in our transition to a cleaner, greener and more sustainable future. Green energy systems require more copper to reach net zero targets by 2050. So much, that more copper has to be mined in the next 30 years, than in the history of humankind. The current approach to copper production is energy and water intensive, increasing as grades decline, and producing ever more emissions and waste products. It won't be possible to meet future demands for copper through merely recycling. And exploring for new deposits is challenging and takes a long time (15 years on average from discovery to mining). Markets in the future green economy will likely not buy copper that has not been sustainably produced. It's a sustainable copper paradox: how do we increase the production of copper needed for a green energy society and do so by processing lower grade ores, without using more energy and water and producing more waste? This presentation will present and discuss this paradox and encourage a collaborative global approach to addressing it.

Third Speaker Session III

Max Åhman

Associate Professor in Environmental and Energy System Studies, University of Lund, Sweden



Max Åhman is an Associate Professor in Environmental and Energy System Studies at Lund University and did his PhD at the same university in 2003 with a comparative analysis on fuel cell-, hybrid- and electric vehicles. After his PhD, Max spent several years working in United Nations Environmental Programme (UNEP) in Nairobi Kenya, as a civil servant within the Swedish Environmental Protection Agency in Stockholm, and as an independent climate policy consultant in Tunis, Tunisia. After returning to academia in 2012, Max has been working on climate policy and deep decarbonisation of energy intensive industry. For the past 5 years Max has been involved in the Swedish HYBRIT project that aims to develop the world's first fossil free steel value chain.

Abstract: Green Steel Form Renewables - Development and Outlook in Sweden

“Green steel form renewables - development and outlook in Sweden”. First announced in 2016, the development of steel from renewable hydrogen (H-DR) as a means to replace the conventional blast furnace and to mitigate the greenhouse gas emissions associated with primary steel production, has rapidly become a major future option of steel globally. Several global steel companies have now announced plans to build pilots and demonstration facilities for hydrogen steel. This presentation will explain and discuss the development of fossil free steel in Sweden with an outlook to the EU and the rest of the world. Major issues that will be discussed are what are the physical and policy preconditions for making this transition, what could be the long term effect of this on trade of commodities, and what kind of global cooperation within the UNFCCC could foster further development.

Discussant Session III

Hajime Kobayashi,
Partner, Gemini Strategy Group

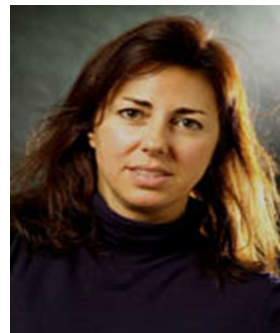


Hajime Kobayashi is a seasoned management consultant with engineering background. Currently he is Partner at Gemini Strategy Group, a Tokyo-based management consultancy proactively helping Japanese corporations achieve business goals, formerly a manager at General Electric, and engineer-turned business architect at Kajima Corporation. He has broad strategy and business development experiences, from R&D to M&A, in such industry verticals as chemical, pharmaceuticals, medical devices, automotive, financial, consumer goods, and industry goods assisting 100+ multinational and domestic companies from startup to market leaders. Currently, he has a bachelor and master of engineering degrees from University of Tokyo, and MBA from Ross Business School at University of Michigan. Recently he has been leading projects which include next-generation solution development for a leading chemical company, human resource and organization development for a leading trading company, growth strategy development and execution for a consumer goods startup, and mid-term strategy development for a leading IT system integrator.

First Speaker Session IV

Sandra Cassota

Associate Professor in International, Environmental and Energy Law, Aalborg University /
Associated Senior Research Fellow, ISDP, Stockholm



Sandra is Associate Professor in International, Environmental and Energy Law. She was appointed Lead Author on Environmental Governance and Polar Regions (Arctic and Antarctic) at the International Panel of Climate Change (IPCC) United Nations. She is specialized in environmental damage and liability problems in a multi-level context. Her expertise is on environmental regime effectiveness in a multi-level governance perspective. Included in her areas of interests are human rights, law of the sea (UNCLOS), and environmental security (particularly that of the Arctic Ocean), Energy Security and Geopolitics. Though a legal scholar, her approach is interdisciplinary, combining law with international relations, economics, and elements of (climate) environmental science. Sandra is also Adjunct Professor of Law, School of Law, Western Sydney University (Sydney, Australia), Fellow at the Sustainability College Bruges – SCB (Belgium), Expert Research Fellow at the Institute for Security and Development Policy, ISDP working on the Sino-Arctic Research Programme (Stockholm, Sweden), Member of the Governmental Panel of Assessment for the Academy of Finland for Governmental Projects on Environmental Law and Economics and Expert at the European Commission (DG Climate Adaptation) and the European Parliament.

Abstract: Reflections on COP 26

The talk will give an overview of the key issues that have been discussed during COP 26, in the context of past COPs and the UNFCCC/Paris Agreement legal framework. The presentation is aimed at government officials, academics, NGOs and others who will be attending or are interested in COP 26. The overview will offer expert insight into the priorities, working mechanisms and procedure of climate change COPs, how they function and what positions have been taken from specific issues that are on the agenda. There is no doubt that climate change is at the centre of attention at COP 26 but there is also another aspect that cannot be neglected and that goes hand in hand with climate change: global inequality. The two aspects should be treated together. COP 26 should recognize that there is no therapy for climate change if it does not also include global inequality. To achieve this, COP 26 sets priorities that should seek to converge the fight against climate change and inequalities by convincing reluctant countries to accelerate decarbonisation.

Second Speaker Session IV

Marciej M. Sokolowski,
Visiting Researcher, University of Tokyo /
Assistant Professor, University of Warsaw, Poland



Doctor of law (PhD) with habilitation (Doctor of Science, DSc) in legal science, academic lecturer. Visiting Researcher at Meiji University in Tokyo. Assistant Professor at the Faculty of Law and Administration, the University of Warsaw. Expert in the field of energy law, economy, and energy sector. Author of *Regulation in the European Electricity Sector* (Routledge, 2016) and *European Law on Combined Heat and Power* (Routledge, 2020). Fellow at the Sustainability College Bruges (Belgium). Fellow of the Research Network on Human and Non-Human Normativity. Member of the SI Network for Future Global Leaders (Sweden). Member of the Polish Electricity Association. Member of the Australian Network for Japanese Law. Member of the European Union Studies Association in Japan.

Abstract: Community Energy in the 2050 Energy Transition of the EU and Japan

Energy communities, which are fueled by renewables and rely heavily on photovoltaics (PVs), represent a developing wave of prosumer movements that will be significant in the energy transition of 2050. This is due to the drop in the cost of renewable installations, as well as the possibility for numerous deployments in previously unreachable areas. However, any further expansion of this trend necessitates the regulatory framework and policy attitude – this concerns Japan, which should focus on a more preferential approach to energy communities if the country is to promote its idea of a sustainable regional community abroad, as well as the European Union, which has a general regulatory model but is still debating the details and instruments of its energy vision for 2050 (Fit for 55).

Third Speaker Session IV

Takashi Sekiyama,
Associate Professor, Kyoto University, Japan



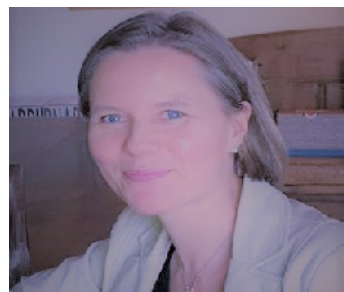
Takashi Sekiyama is Associate Professor of International Political Economy at Kyoto University. He received his first doctorate in Law from Peking University, his second doctorate in International Studies from the University of Tokyo, and his Master's degree in Sustainability Studies from Harvard University. He worked for the Ministry of Finance between 1998 and 2003 as well as the Ministry of Foreign Affairs from 2005 to 2008. His authored/co-authored books include *Climate Security* (Tokai Education Research Institute, 2021; in Japanese) among others. His research interests are international relations in the Asia-Pacific and global environmental politics.

Abstract: Climate Security and Japan-Sweden Cooperation

Climate change is expected to directly and/or indirectly induce conflicts among countries and communities. Such security risks are called climate security. Climate change could not only pose direct threats to humans and society due to the accompanying extreme weather and natural disasters, but could also indirectly amplify the threats to the peace and prosperity of human society through various other channels. Every corner of the world would face climate security risks. Among them, the Arctic Circle is one of the regions at greatest risk. Japan and Sweden should work together to ease tensions in the region.

Chair Session V

Svetlana Sabelfeld,
Researcher, Gothenburg Research Institute,
University of Gothenburg, Sweden



Svetlana Sabelfeld is a researcher at Gothenburg Research Institute at School of Business, Economics and Law, University of Gothenburg. Her research interests revolve around topics of accounting, communication, sustainability, and regulation. Svetlana's ongoing research focuses on how social and environmental accounting practices develop in different cultural and institutional contexts (for example, in Sweden and Japan). She also studies impact of global sustainability reporting frameworks and regulations on corporate reporting and communication practices. Svetlana is a member of Editorial Advisory Board at *Accounting, Auditing and Accountability Journal* and of Social and Environmental Research Network (CSEAR).

First Speaker Session V

Bengt Johansson,
Associate Professor in Environmental and Energy
Systems Studies, University of Lund, Sweden



Bengt Johansson is associate professor in Environmental and Energy Systems Studies at Lund University. His research career started with a PhD thesis in 1997 on the role of renewable energy and energy efficiency in low carbon energy systems. Currently his main research focus is on energy and climate policy and potential synergies and goal conflicts between climate policies and the opportunities to meet other environmental objectives, energy security and industrial competitiveness. Previously, Bengt has during eight years worked with policy development and evaluation as a civil servant at the Swedish Environment Protection Agency and during nine years as a researcher at Swedish Defence Research Aspects focusing on climate and energy security.

Abstract: Renewable energy in Swedish climate policy: governance principles and policy instruments.

Sweden is the country with the highest fraction of renewable energy in the EU (>50%). Both electricity production and domestic heating is virtually fossil free and the use of renewable transportation fuels increases continuously. This development has been helped by a combination of large hydro, biomass and wind resources, well-suited infrastructures (eg. district heating) and a well-developed forestry and forest industry with the capacity to make the biomass resources available to the market. However, carbon policy initiatives have been essential to allow for this development. Carbon taxation, introduced in 1991, has been central for the expansion of biomass in the heating sector, whereas the development of renewable electricity production has mainly been driven by a renewable electricity certificate system. Within transportation, tax deductions on biofuels have been the major policy instrument but this has been complicated to combine with EU regulation and is therefore being replaced by quota obligations for fuels suppliers to supply a certain fraction of renewable fuels in their sold products. Decarbonizing industry and transport remains a significant challenge for reaching net zero emissions in Sweden. The use of bioenergy as mitigation CO₂ mitigation options is also currently set under pressure from the EU clashing with the interests of Sweden and Finland.

Second Speaker Session V

Merlin Linehan,
Risk Manager, European Bank for Reconstruction
and Development (EBRD)



My research and writing on geopolitics are focused on the geopolitics of climate change, China's global role in renewable energy and sustainable finance/climate business. These are reflected in my websites: rising-powers.com, merlinlinehan.com and climatefrontiers.substack.com.

For over 10 years I have worked at the European Bank for Reconstruction and Development (EBRD) across risk management, climate risk, sustainable finance and business resilience. I am also a regular contributor to publications such as Frontera, PRMIA and Risk Screen and others covering geopolitics, climate risk and technology. I have appeared in various media outlets including the FT, BBC and Global Capital commenting on China's global role and emerging markets.

Abstract: International Cooperation, TCFD and corporate governance

The Taskforce for Climate Related Financial Disclosures (TCFD) was formulated as a set of recommendations for financial institutions to assess and disclose the financial risk to pose by climate change to their assets. Climate risk is a young field and cooperation between financial institutions, regulators and insurers is crucial in developing robust methodologies to assess climate risk. Climate risk assessment are also an opportunity for boards to think deeply about climate change. Not only assessing how a changing environment will impact their company, but how it can spark a shift to other climate related goals such as decarbonisation and adoption of renewable energy. The TCFD is also a tool for promoting cooperation and dialogue between corporations and banks on the best way methods to implement carbon transition. Japan and Europe have been global leaders in TCFD adoption, but can lessons learned from their advances can be replicated across other parts of the world?

Third Speaker Session V

Noriko Okubo

Professor, Osaka University, Japan



Professor Okubo Noriko is a Professor at the Graduate School of Law and Politics, Osaka University. Specializing in Administrative and Environment Law, Professor Noriko received her Doctor in Law from Hitotsubashi University, and has also attained a Magistra Juris at Justus Liebig University Giessen. She has worked as a lecturer and associate professor at Gunma University and as a professor at Konan University.

Abstract: Local Initiatives to Overcome Green vs Green Conflicts Related to Renewables

Renewable Energy Facilities, particularly mega-solar power, wind power, and geothermal power, which are inevitable to achieve “Carbon Neutral”, cause environmental troubles such as destruction of landscape, low frequency, increase of natural hazard, etc. Prof. Ohkubo will review actions by the Central Government (including revision of relevant laws and rationalization of assessment) and Local Governments (such as Regulations on Renewable Energy), and she will present problems to be settled.

Discussant Session V

Masayuki Komatsu,

President, Ecosystem Research Institute /

Visiting Researcher, KIIP, Tokyo, Japan



Masayuki Komatsu is the President of the Ecosystem Research Institute and a Visiting Professor at the Asian Growth Research Institute. He is also the leader of a study group on North Pacific Marine Ecosystems and a Visiting Researcher at Kajima Institute of International Peace. Komatsu attained his PhD in Agriculture and Life Sciences at the University of Tokyo and an MBA at the Yale School of Management. He has written extensively in both Japanese and foreign languages on a wide range of topics, including fishery.

Welcome Note and Wrap-up Day 1
Discussant Session IV
Chair Concluding Panel discussion

Mahima Duggal

Associated Research Fellow, ISDP, Stockholm



Mahima Duggal is a Research Associate at the Centre for Air Power Studies (CAPS) in New Delhi. She is an Associated Research Fellow at the Stockholm Centre for South Asian and Indo-Pacific Affairs (SCSA-IPA) at the Institute for Security and Development Policy (ISDP), Sweden. Ms. Duggal is an Editorial Assistant for the Series Editor of Routledge Studies Think Asia. Her research is focused on the security issues and changing balance of power in the Indo-Pacific region, with an emphasis on India's foreign policy, China, and South and East Asia. Ms. Duggal has been widely published in both academic journals and national and international media outlets, and has also authored several single and co-authored chapters in edited volumes. She graduated at the top of her class with a Master's degree in International Security (distinction) from the University of Warwick in 2019, and has work experience with non-governmental organizations in both India and Singapore.

Welcome Note Day 2

Peter Adolfsson

Intern, Japan Center, ISDP, Stockholm



Mr. Peter Adolfsson is an intern at ISDP's Stockholm Japan Center. He holds a Bachelor's degree with Honors in Japanese and Linguistics from the University of Edinburgh and has recently completed an MPhil program in Japanese studies at the University of Cambridge.

Chair Session V
Vote of Thanks

Jagannath P. Panda

Associated Senior Research Fellow, ISDP, Stockholm



Dr. Jagannath Panda is a Research Fellow and Coordinator of the East Asia Centre at MP-IDSA, New Delhi. He joined MP-IDSA in 2006. He is a recipient of the V. K. Krishna Menon Memorial Gold Medal (2000) from the Indian Society of International Law & Diplomacy in New Delhi. Dr. Panda is the Series Editor for Routledge Studies on Think Asia. He is the author of the book *India-China Relations: Politics of Resources, Identity and Authority in a Multipolar World Order* (Routledge: 2017). He is also the author of the book *China's Path to Power: Party, Military and the Politics of State Transition* (Pentagon Press: 2010). Dr. Panda has also edited a number of books to his credit. Most recently, he has published an edited volume *Scaling India-Japan Cooperation in Indo-Pacific and Beyond 2025: Connectivity, Corridors and Contours* (KW Publishing Ltd. 2019), and *The Korean Peninsula and Indo-Pacific Power Politics: Status Security at Stake* (Routledge, 2020).