

**Summary Report** 

# Strengthening Synergies between Climate Change and Biodiversity:

From Science to Policy to Action

2022 11.28 Plenary Sessions

Hybrid event

11.29 – 12.5

2022

**Thematic Tracks** 

Online event



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Professional affiliations and titles are correct at the time of the forum.

## **Event Outline**

The International Forum for Sustainable Asia and the Pacific (ISAP) is held annually in Japan bringing together leading experts, international organisations, governments, businesses, and NGOs to discuss various aspects of sustainable development in Asia and the Pacific. This year's forum was organised by the Institute for Global Environmental Strategies (IGES), in cooperation with its international network, to promote information sharing and strengthen collaboration among a wide range of stakeholders. The theme of ISAP2022 was "Strengthening Synergies between Climate Change and Biodiversity: From Science to Policy to Action". Both climate change and biodiversity loss result from the expansion of an unsustainable relationship between nature and humans, posing a major threat to human society. Discussions focused on how we can deal with these two deeply interconnected challenges. It is clear that individual policies and measures are not enough — we also need to make some fundamental changes in the structure of our societies and our economies. At ISAP2022, we discussed how to address these two global challenges in a more integrated manner, and examined how to integrate science, policy and action. The event offered different options for participation, ensuring that a wide range of stakeholders could take part, such as holding the plenary sessions as a hybrid of on-site and online participation, holding the thematic sessions online, and providing recorded videos of the entire event online.

ISAP2022 Plenary Sessions were held on 28 November to discuss "Strengthening Synergies between Climate Change and Biodiversity" and "Interface between Science-Policy-Action". Thematic Tracks were held from 29 November to 5 December to discuss the latest global trends and disseminate the results of research carried out by IGES. Thematic Tracks were arranged according to the upper theme designed for each day as below:

DAY1 Accelerating Implementation of the SDGs "Put SDGs on the Ground"

DAY2 Net-zero and Resilient Transitions in Asia (1): A Socio-economic Dimension and Demand-side Management

DAY3 Net-zero and Resilient Transitions in Asia (2): From Science to Policies and Implementation—or Japan's Contribution to Asia

**DAY4** Pursuing Nature-positive Societies

**DAY5** Achieving Pollution-free Societies

| Date              | 28 November – 5 December 2022  Plenary Sessions (PL): 28 November 2022 at Pacifico Yokohama [Hybrid event]  Thematic Tracks (TT): 29 November – 5 December 2022 [Online event]   |
|-------------------|--|
| Organiser         | Institute for Global Environmental Strategies (IGES)   |
| Supporters        | Ministry of the Environment, Japan / Kanagawa Prefectural Government / Hyogo Prefectural Government / City of Kitakyushu / City of Yokohama / Kawasaki City / National Institute for Environmental Studies (NIES) / Japan International Cooperation Agency (JICA) / Environmental Restoration and Conservation Agency (ERCA) / ICLEI Japan Office / ICLEI-Local Governments for Sustainability / Global Environmental Action (GEA) |
| Collaborators     | Korea Environment Institute (KEI)  |
| Special Supporter | Yokohama Convention & Visitors Bureau  |

## Opening

#### **Guest Remarks**

Having recently participated in COP27, Minister of the Environment NISHIMURA Akihiro recognised that the 1.5-degree target of the Paris Agreement has moved from the "negotiation" to the "implementation" phase. He indicated that the Japanese government formed the



"Paris Agreement Article 6 Implementation Partnership" to direct negotiations toward the formulation of the Article 6 rules through this initiative. Another initiative, the "Loss and Damage Assistance Package," was also introduced. He stated that Japan, which has experienced many natural disasters, can introduce technologies and services to developing countries based on its past experiences, and he expressed his enthusiasm about building an early warning system to respond to natural disasters in developing countries through cooperation between the public and private sectors. Referring not only to climate change but also to biodiversity, he emphasised that Japan is aiming to adopt a "post-2020 global biodiversity framework" at the upcoming CBD COP15. In particular, to achieve the "30 by 30" goal of conserving at least 30% of the world's land and sea by 2030, he stated that Japan would expand protected areas such as national parks and promote the conservation and management of nature-friendly sites in cooperation with the private sector and others. Recognising that climate change and biodiversity are interconnected issues, he stressed that the Japanese government would tackle both issues in an integrated manner.





on the global and local levels. Next, he emphasised that to address the two interrelated issues of biodiversity conservation and climate change mitigation, it is important to simultaneously promote multiple measures on a global scale. He then cited Kanagawa Prefecture's efforts to introduce renewable energy sources, such as solar power generation, as the prefecture has played a leading role in this sector in Japan since the current governor took office in 2011. He also highlighted the prefecture's goal of "achieving a decarbonised society by 2050." This goal was announced as part of the "Kanagawa Climate Emergency Declaration" introduced in February 2020. He also shared that for this year, the prefecture is planning to undertake comprehensive measures for decarbonisation. Regarding biodiversity conservation, he mentioned that in March 2022, the "Kanagawa Prefecture Red Data Book 2022: Plants" was released, which compiles the results of a survey of rare plants. He stated that the prefectural government plans to adopt an integrated approach that accumulates and utilises scientific data on the environment while also working to conserve diverse ecosystems and address climate change issues. He also introduced Kanagawa's phrase "Vibrant INOCHI," which aims to form "a society in which all prefectural residents' lives shine brightly." The prefecture is considering the integration of all aspects, including not only healthcare but also food, energy, education, and a sustainable global environment that supports these areas.





#### **Organiser's Remarks**



IGES President TAKEUCHI Kazuhiko, speaking on the main theme of ISAP2022, "Strengthening Synergies between Climate Change and Biodiversity: From Science to Policy to Action," highlighted the context that both climate change and biodiversity loss are driven by

the expansion of the unsustainable relationship between nature and human beings and pose significant threats to human society. He stated that resolving these two profoundly interconnected issues would necessitate not merely individual policies and measures, but also fundamental changes in societal and economic structures. He emphasised the importance of an integrated approach to this objective and asserted that ISAP would serve as a platform for discussing future global environmental policies and what direction they are likely to take.

He brought up the key agenda items of the 27th Conference of the Parties (COP27) to the United Nations Framework Convention on Climate Change (UNFCCC) and the 15th Conference of the Parties (COP15) to the Convention on Biological Diversity (CBD), set to take place before and after the ISAP, and emphasised IGES's involvement in these meetings and outreach to society. Additionally, he mentioned the publication of IGES's Japanese translation of the Club of Rome's recent report "Earth for All: A Survival Guide for Humanity," which was published in September the previous year. He confirmed that ISAP would be an opportunity to present its content.





## Keynote Speech

In connection to the ISAP2022 theme "Strengthening Synergies between Climate Change and Biodiversity," TANAKA Akihiro first analysed the current complex, ongoing global crisis. This crisis facing humans involves three interconnected systems: the Earth



system (including the atmosphere, which is defined by the laws of physics), the global ecological system (which is triggered by the laws of life science), and the global social system (in which people interact). He presented the question of what can be done to break this vicious cycle generated by climate change, the COVID-19 pandemic, and the Russian invasion of Ukraine within the physical, biological, and social systems of the planet, respectively. He then explained that a human security crisis has resulted from these vicious cycles.

Reflecting the experiences of liberal democracies, which used mechanisms of "checks and balances" to prevent tyrannical monarchies from allowing their countries to be devastated by the misrule of tyrants, he stated that even liberal democracies can be attacked if their neighbour is a despotic aggressor. He explained that in such a world, national security is critically important to guarantee the security of the people. To cope with the global economic crisis, the spread of COVID-19, and several accompanying catastrophes in a manner that ensures human security, capable and responsible states are a necessity. Moreover, these states must cooperate with a number of stakeholders.

He further explained that ensuring human security requires an interdisciplinary approach that can address the interactions between the three systems. Moreover, he noted that such cooperation is not easy. This is because, according to him, there are people who value certain "ideologies" more than human security, and in fact it is human beings that are capable of murdering each other based on such ideologies. He argued that the seriousness of the current human security crisis must be understood by all countries of the world in order to overcome this crisis.

He observed that from a very long-term perspective, the era in which humans consider themselves to be the greatest threat to human security might be ending. He also pointed out that although human security was originally viewed as a threat within the social system, he hopes that we will transition into an era in which we will devote all our efforts to taking countermeasures against threats to human security that arise from the interactions between physical and ecological systems.





## **Plenary Session 1**

# Can Climate and Biodiversity Catch up with More Successful Sustainable Development Indicators?



https://isap.iges.or.jp/2022/en/p1.html

#### **Speakers**



Kristie EBI Professor, Center for Health and the Global Environment (CHanGE), University of Washington



HASHIMOTO Shizuka
Associate Professor, The University
of Tokyo/ Senior Fellow, IGES /
Multidisciplinary Expert Panel
Member, Intergovernmental
Science-Policy Platform on
Biodiversity and Ecosystem
Services (IPBES), Lead Author for
IPBES Global Assessment and the
Asia-Pacific Regional Assessment

#### Moderators



André MADER Programme Director, Biodiversity and Forests, IGES



TAMURA Kentaro Programme Director, Climate and Energy, IGES

## Summary

The session started with the first key question "Why are climate and biodiversity lagging behind other SDGs?"

The first speaker responded that these issues required multidisciplinary and multigovernmental actions, whereas the other SDGs could be addressed at the national and subnational levels. When all nations with varying interests need to act together for planetary issues, such as climate and biodiversity, it is difficult to achieve consensus on the direction to take, which delays the overall actions. The second speaker pointed out a priority issue: that governments, industries and people tend to pay more attention to what is directly related to their well-being, while they tend not to relate their material consumption to the degradation of nature. Therefore, to accelerate the progress, he proposed integrating climate and biodiversity considerations into our decision-making across sectors at all levels. The first speaker added that industries have been polluting for hundreds of years without paying much attention to the issue of global warming, whereas it is individuals who are the ones to actually experience climate change. Furthermore, both business and government need to take this problem into consideration in their operations.

The moderator asked if technology could offer any solutions. The discussion continued to include the expansion of electric vehicle (EV) production. However, there must be a thorough evaluation of the synergies and trade-offs, for example, where the mining industry needs to be enlarged to produce EVs. Overall, the life-cycle environmental impact must be measured and controlled.



The speakers then discussed how climate and biodiversity goals should be better integrated. They agreed that integration is needed to understand the trade-offs, in particular. For example, we need to be aware of the environmental implications of changing agricultural land-use from food production to biofuel production. Another example is the space required by solar power installations. Nature-based solutions including green infrastructure and ecosystem-based disaster risk reduction (DRR) can be useful in managing such trade-offs, such as that demonstrated by the IPBES-IPCC Co-Sponsored Workshop on Biodiversity and Climate Change.

On the bright side, more scientists are developing expertise in the areas of both climate and biodiversity, and multidisciplinary research is accumulating. More funds should be allocated for such research to accelerate the transition to a more sustainable society.





- We must integrate climate and biodiversity considerations into decision-making across sectors at all levels, including the individual level (such as in the choice of products).
- Although trade-offs do exist between different targets among SDGs, we may be able to alleviate some of the negative impacts on the environment by using, for example, nature-based solutions.
- It is crucial to accelerate scientific research on trade-offs to better manage the impacts on the earth, as time is limited.

## **Plenary Session 2**

## On the Ground Practices at National and Local Levels - Climate and Biodiversity



https://isap.iges.or.jp/2022/en/p2.html

#### **Speakers**



Dhanalekshmy SIVANI Local government, Kerala, India



KASAI Takahiro Section Chief, Policy Planning & Coordination Division, Sado City



UCHIDA Togo Director, ICLEI Japan Office



FUJITA Kaori Senior Deputy Editor, Nikkei ESG / Professor, Graduate School of Life Sciences, Tohoku University

#### Moderator



Eric ZUSMAN Research Leader, Integrated Sustainability Centre, IGES

## Summary

The moderator opened the session by sharing images of the Camp Fire in Paradise, California in 2018. The images from what had been the costliest wildfire in US history set the scene for a wider discussion on the relationship between climate change, natural resource management, and biodiversity preservation at the local level.

The moderator then introduced the first speaker from a local government entity in Kerala, India, who presented on the severe floods and landslides that occurred in her hometown in 2018 and 2019. She demonstrated the challenges that local governments face in managing the effects of climate change on all forms of life in a developing country context.

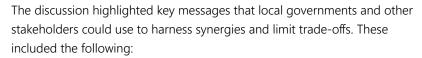
The second speaker from Sado, Japan followed by explaining the city's synergistic approach to climate and biodiversity as a way of dealing with the shrinking population and economy under the Regional Circulating and Ecological Sphere (Regional-CES) concept. He highlighted Sado's efforts to bring synergies to life by, for instance, producing biovegetables, promoting the Toki bird sanctuary, and turning electricity (currently 90% fossil fuel) into decarbonised power generation (i.e. biomass and solar panels).

The third speaker focused on the same theme of synergies as well as the related topic of trade-offs for several cities in Japan. He noted that the trade-offs between climate and the economy and between biodiversity and city infrastructure are more complex than those between climate and biodiversity. There are, however, examples of good practices at the city level that can bring together biodiversity, infrastructure management and climate change in Japan. To illustrate, some cities have proposed new approaches to infrastructure



design through nature-based solutions that are designed to help limit trade-offs.

The fourth speaker concentrated on the private sector. She noted that businesses have recently been addressing trade-offs, highlighting some companies' work on biomass, palm oil and the installation of solar panels on agricultural land during the off-season. She further underscored that these synergistic approaches have been gaining a considerable amount of attention over the past year due to the leadership of multinational companies such as Apple.















- Strengthening community-based governance and early warning systems for climate disasters by investing in raising awareness and capacity building.
- Creating funding mechanisms that explicitly reward governments and the private sector for working across climate, biodiversity and related sustainability concerns.
- Opening channels to codesign evidence-based solutions with the research community.
- Strengthening coordination between governments and other stakeholders at multiple levels to help scaleup synergistic solutions.
- Enable cross-city collaboration and learning to implement synergistic approaches.
- Generating stories and powerful narratives to inspire cities or companies to create value through synergistic efforts.

## **Plenary Session 3**

## From Science to Policy to Action



https://isap.iges.or.jp/2022/en/p3.html

#### **Speakers**



TANIGUCHI Makoto Deputy Director-General, RIHN Center, Research Institute for Humanity and Nature (RIHN)



Vibha DHAWAN Director General, TERI



Chang Hoon LEE President, Korea Environment Institute (KEI)



HAYASHI Yoshitsugu President, The Japanese Association of the Club of Rome



Sandrine DIXSON-DECLEVE Co-President, The Club of Rome



TAKEUCHI Kazuhiko President, IGES

#### Moderator



TAKAHASHI Yasuo Executive Director, IGES

## Summary

This session focused on strengthening the linkages between science and policy by providing integrated solutions and enhancing actions to address the global climate crisis. Particular attention was paid to the policy and narrative developments by the research and academic institutions/think tanks for building a "Sustainable Asia and the Pacific".

The first part of the session was dedicated to discussing these organisations' roles as change agents. Three representatives from Asia's leading research institutions — the Research Institute for Humanity and Nature (RIHN) in Japan, The Energy and Resources Institute (TERI) in India and the Korea Environment Institute (KEI) in the Republic of Korea — introduced their visions, approaches, focus areas, institutional settings, and research activities to address climate change and biodiversity. It was evident that all three organisations actively work on the human-environment nexus through ground research programmes and projects to advance knowledge and provide key inputs for climate policy formation in their respective countries. In the discussion, all three speakers agreed upon the need for collaboration among stakeholders and the creation of synergies. The first speaker called for integration and structualisation of the global "East", i.e. the Asian region, by incorporating Asia's value and traditional knowledge into the existing North-South debate on climate. The second speaker highlighted the importance of technology cocreation, technological development and capacity building in collaboration with universities. The third speaker committed to expanding their collaborative scope internationally as a new vision.

The second part of the session was dedicated to launching the Japanese version of "Earth for All: A Survival Guide for Humanity", by the Club of Rome. All the speakers expressed appreciation for the work of the IGES team in



contributing to outreach efforts for the dissemination of the important messages put forward by the report to Japanese audiences. The first speaker highlighted the report's significance in urging a paradigm shift towards a 'well-being society' within the planetary boundaries and also provided a briefing on the background of Prof. Takeuchi and the IGES team's involvement in translation work. The second speaker presented the short introductory video of "Earth for All" and reiterated its key ideas. In particular, the speaker stressed the need to address the 'extraordinary turnaround' in the five major global challenges of inequality, poverty, empowerment, food and energy as "The Giant Leap". The third speaker spoke about the association of the Club of Rome in Japan and how the key members disseminated their messages to the Japanese government and the United Nations. In the panel discussion, the first panellist presented the implications of the report in Asia by indicating the required paradigm shift in the human-nature relationship through increased flexibility in natural resource management and synergy creation. The second panellist pointed out the uneven impact of climate change, particularly in developing nations, and urged taking measures to ensure finance flow and technology transfer. The third panellist reiterated the key messages and emphasised the importance of long-term visioning and planning. The session concluded with the Club of Rome's closing remarks, reflecting the inputs that the panellists provided and calling for collaborative and enhanced actions to build a sustainable and resilient society.



















- Research institutes/think tanks play an essential role as change agents in bridging the domains of science, policy and actions.
- Collaboration and synergy creation are vital for addressing climate change and biodiversity, particularly by integrating knowledge of the global East in the current debate and accelerating technology cocreation.
- "Earth for All: A Survival Guide for Humanity" by the Club of Rome urges the need for the world under transformation into a 'well-being society'. Natural resource management has the potential for applying the idea in the Asian context, at the same time that ensuring finance flow and technology transfer is also indispensable.

## Closing

#### **Closing Remarks**

KAWAKAMI Tsuyoshi, Acting Managing Director of IGES, stated that three years have passed since the COVID-19 pandemic began and that ISAP is still undergoing a process of trial and error in terms of holding the event and establishing new communication methods that optimise both real and virtual communication. He mentioned that this year's ISAP was positioned as a networking opportunity and that a "networking incubation space" was established in the hallway stretching from the reception area to the plenary session venue, with the aim of encouraging new collaborations. He also thanked the speakers and participants who attended the event.

Regarding impact generation and dissemination at IGES, he mentioned that the institute helped set an agenda for future climate action by supporting international negotiations at COP27, and organising and presenting at 21 side events. Moreover, he stated IGES promoted stakeholder participation, information gathering, and networking by providing support to Japanese companies and local governments that participated at the conference in person and online. Furthermore, he reported that IGES provided timely information to Japanese audiences through appearances on major news TV programmes. He noted that the IGES climate change webinar series had been held 41 times to date, with a total of over 14,000 participants. He also highlighted that the most recent "COP27 Results Update" webinar was attended and viewed by nearly 1,200 people.

He stated that all of these efforts by IGES have converged to help solve the problem of how to pass on a beautiful and abundant planet to the next generation and ensure that our children have as many options as possible in the future. He promised that IGES will continue to work hard to ensure that we can continue to enjoy the bounty of nature under a stable climate.





## ISAP2022

> Thematic Tracks

## Solar Sharing on Abandoned Farm-lands as Key Accelerator to Create Regional Circular and Ecological Spheres (Regional-CES)



https://isap.iges.or.jp/2022/en/t1.html

#### **Presentations**

#### INOUE Yasuko

President, Takarazuka Sumire Power Generation, Co.

#### OGAWA Ryuichi

Visiting Researcher, Symenergy, Co. (IGES visiting researcher)

#### Panel Discussion

#### Commentator

SUGA Noriaki Director, Hyogo Prefecture

#### Moderator

#### TANAKA Yugo

Policy Researcher, Kansai Research Centre, IGES

## Summary

In this session, which aimed at addressing both climate change and biodiversity loss, we discussed a strategy to accelerate the transition of existing food and energy systems that rely on imported food and fossil fuels through solar sharing on abandoned farmlands. The first speaker, who manages community gardens with solar sharing utilising abandoned farmlands in Takarazuka City, Hyogo Prefecture, stated that solar sharing had been helpful for stabilising profitability, which is essential for continuing to protect local farmlands, while at the same time, the community gardens had been providing opportunities for diverse generations to experience agriculture. The second speaker, who is working on a research project to establish a system to expand solar sharing in other regions, pointed out that the current administrative hurdles and low profitability hinder the expansion of solar sharing on a business basis, suggesting that electricity be traded at a fair price considering the various local benefits and strategic importance. Thus, the commentator stated the need to develop a strategy to create win-win outcomes for both the energy and agricultural sectors, taking advantage of the broader trend that food manufacturers and other consumers are paying increasing attention to the environmental impacts of agricultural products.

- Solar sharing is an effective tool for creating the future of local communities. While important in addressing the global challenges of climate change and biodiversity loss, it also offers precious opportunities to protect local farmlands, broaden the base of support for agriculture and generate income for the local communities. Consumers are increasingly interested in solar-powered electricity and crops that are grown by solar sharing. At the same time, community gardens are gaining in popularity. It is important to promote the transformation of food and energy systems from the consumer point of view.
- Measuring and visualising environmental impacts of production processes, such as carbon footprints of
  agricultural products and electricity, as well as enabling consumers to purchase the products at a fair price
  considering various benefits, may accelerate solar sharing initiatives. Current barriers, such as securing
  farmers, financing and business profitability, can be overcome by ingenuity.
- To promote the transformation of conventional food and energy systems that are not sustainable, it is necessary for power producers, farmers, governments, and consumers to understand the significance of solar sharing and to take measures that go beyond conventional approaches by taking concerted actions. Both global trends such as consumers' increasing attention to environmental impacts and successful local initiatives for creating regional circulating and ecological spheres through solar sharing, may accelerate the transformation of such systems.

## Climate Change Actions and Regional Sustainable Development Synergies



https://isap.iges.or.jp/2022/en/t2.html

#### **Greeting from UCCRN**

Maria Dombrov Urban Climate Change Research Network (UCCRN)

#### Speakers

#### Ana Karen MENDIVIL VALENZUELA

Deputy Director for Climate Change, Ministry of Environment of Mexico City (SEDEMA)

#### Gian Carlo DELGADO

Researcher, Institute of Geography, National Autonomous University of Mexico

#### **HAMURA Tamon**

Deputy Director General of Environmental Affairs Bureau, Department of the Environment and Residential Life, Kumamoto Prefecture (Japan)

#### Joana PORTUGAL PEREIRA

Assistant Professor, Federal University of Rio de Janeiro (COPPE/UFRJ) (Brazil)

#### Chuck KUTSCHER

Fellow, Renewable and Sustainable Energy Institute, University of Colorado Boulder (US)

Minal PATHAK Associate Professor, Global Centre for Environment and Energy, Ahmedabad University (India)

#### Tashi WANGMO

Governor, Samdrupjongkhar Dzongkhag Administration (Bhutan)

#### Pamela FENNELL

Lecturer in Urban Building Energy Modelling, Bartlett School of the Environment, Energy and Resources, University College London (UK)

#### Silvia ASSALINI

Covenant of Mayors Europe Office (EU)

#### Session Coordinator/Moderator KAMEI Miho

Researcher, Integrated Sustainability Centre, IGES

## Summary

This session mainly focused on the interactions between local climate actions and sustainable development strategies. All speakers focused on how policy and science can interact with each other to support the smooth and effective implementation of local strategies on the ground, as well as on how multiple stakeholders could be involved to promote actions locally and scale up to global impacts. The speakers were invited from a variety of regions on multiple continents in the global North and the global South. The diverse speakers highlighted key strategies and local approaches that were different from each other, depending on their regional and global context. Also, key SDG targets were different in each city and region depending on local contexts. While it is certainly a complex challenge to achieve the targets for both climate change and the SDGs, integration of both targets signifies an important synergy for achieving local sustainable development. Therefore, all speakers emphasised that there is not a one-size-fits-all solution; thus, opportunities to exchange ideas and experiences were key for developing additional local initiatives and

actions. The importance of science-based policy development processes using local monitoring data and scenario analysis was also discussed, as well as good governance for inclusive social transformations.



- Communications among different actors and stakeholders, as well as the exchange of ideas and experiences between different regions, are vitally important.
- Key challenges and solutions must be carefully considered based on the specific local contexts, while the variety of actions should be effectively integrated.
- Recent scientific and technological progress in many countries has been remarkable, which can greatly support effective policy and strategy implementations. However, good governance and communications are also increasingly essential to overcome the political and social barriers to promoting inclusive social transformation throughout the globe.

## **IGES Contributions to** "Climate and SDGs Synergy"



https://isap.iges.or.jp/2022/en/t3.html

**Opening Remarks** 

TAKEUCHI Kazuhiko President, IGES

Video Message

#### Bahareh Seyedi

Senior Sustainable Development Officer, UN DESA

#### Message

#### Daniele Violetti

Senior Director, Programmes Coordination, UNFCCC

#### **Panellists**

#### **HOTTA Yasuhiko**

Programme Director, Sustainable Consumption and Production, IGES

#### MATSUO Akane

Policy Researcher, Adaptation and Water, IGES

#### Mustafa MOINUDDIN

Deputy Director, Integrated Sustainability Centre,

#### Moderator

#### FUJINO Junichi

Programme Director, Integrated Sustainability Centre, IGES

## Summary

This session discussed IGES' contribution to strengthening the synergies between the SDGs and climate change initiatives, which have recently gained importance. The first speaker gave an overview of the 3rd International Conference on Strengthening Synergies between the Paris Agreement and the 2030 Agenda for Sustainable Development, which IGES supported as a member of the organising committee. He presented the principal outcomes of the conference, including the development of a background note led by IGES, the conference summary that highlighted good practices, including "Circulating and Ecological Sphere" and "Decarbonisation Leading Areas," and recommendations developed by national and international youth groups. He noted the importance of strengthening the evidence based for synergistic actions and informing key international processes on climate and the SDGs as the way forward. The second speaker stated that there is increasing evidence that the pursuit of synergies leads to positive results, while noting the challenges of uneven data, both in terms of quality and quantity, across sectors, and the lack of consolidated information on synergies. The third speaker stressed the need for all countries to make further efforts to achieve the 1.5°C target, as SDG 13 is linked to other goals. In the panel discussion, the fourth speaker stressed the need for capacity building in data collection and assessment for adaptation, the fifth speaker pointed to support for local SDGs and climate change actions and stakeholder consultations, and the sixth speaker pointed to experimental projects involving lifestyle and business model changes as keys to strengthening synergies.

- Policymakers are beginning to establish ambitious goals. It is necessary to visualise the future society so that businesses and the general public can understand what to expect.
- We must listen to the voices of various stakeholders and see what can be done to transform society. Sustainability is not just an environmental issue, but also an institutional and social issue.
- Showing how the output of solid scientific research can contribute to policy formulation is vital.

## Achieving a Net-Zero Future in Asia: From Individual Innovation to Societal **Transformation**



https://isap.iges.or.jp/2022/en/t4.html

#### **Speakers**

#### TAMURA Kentaro

Programme Director, Climate and Energy, IGES

#### Sarah BURCH

Executive Director Waterloo Climate Institute

#### Meredydd EVANS

Team Lead and Senior Staff Scientist, Pacific Northwest National Laboratory

#### Discussant

Sudarmanto Budi NUGROHO Principal Policy Researcher, City Taskforce, IGES

#### Moderator

Nanda Kumar JANARDHANAN Research Manager, Climate and Energy, IGES

### Summary

The session began with a framework presentation by an IGES speaker that gave a multilevel perspective on landscape changes, and presented the new technological and social innovations at the niche level that are required to unlock our existing regime of high-carbon pathways. Without improved infrastructure and effective policies, it will be difficult to achieve low-carbon transition. The second speaker highlighted the enormous potential of cities in providing an enabling environment towards the goal of net-zero emissions, explaining that transdisciplinary capacity building within the whole system is necessary to achieve the transformation. The third speaker discussed the City Scale Modelling (CSM) approach designed to help enable smart city development for decarbonisation pathways. The discussion highlighted how implementing policies from local climate plans and taking additional measures for increased emissions reductions helps cities understand the potential of CSM.

The final presentation pointed out that transformation at the local level requires a sociotechnical system transformation that combines systemic change, technological intervention and social change. Cities, especially in developing economies, must ensure they do not lock in urban infrastructure that hampers decarbonisation efforts.

In the Q&A session there were further discussions about the synergies between system-level and individual actions. Participants also discussed how CSM can trigger changes at the national level, as well as the role of governance in sustainability transformations.

- The IPCC Sixth Assessment Report highlights that individual lifestyle changes can provide up to 70% of emissions reduction and that cities are crucial to approach climate change challenges and to breaking the inertia of lock-ins to high-carbon pathways.
- · Sustainability transformations are largely political, social, sociotechnical and behavioural processes, which require capacity building and systemic change to achieve the transformation.
- Integrated approaches to highlighting trade-offs and synergies, and exploring socioeconomic and environmental consequences of policies and cross-sector implications, help cities make informed decisions on the most effective decarbonisation pathways.

## Socially Just Net-Zero Transitions in Asia



https://isap.iges.or.jp/2022/en/t5.html

#### **Speakers**

#### Vigya SHARMA

Senior Research Fellow, Centre for Social Responsibility in Mining, Sustainable Minerals Institute, University of Queensland

#### WATABE Atsushi

Programme Director, Sustainable Consumption and Production, IGES

#### Kvu Youn CHOL

Research professor, DAAD-Center for German and European Studies, Chung-Ang University

#### **Panel Discussion**

#### Discussant

Helena NORBERG-HODGE Director, Local Futures

#### Moderator

#### So-Young Lee

Research Manager, Integrated Sustainability

## Summary

This session discussed how to make Asia's transition to net-zero more environmentally sound and socially just, to avoid recurring climate injustices that threaten to leave the currently disadvantaged even further behind. The first speaker presented a case analysis of China's coal phase-out pathway under specific sociocultural and institutional conditions, and shared supporting analysis of global energy transition experiences to help understand the existing perceptions of just transitions. The next presentation broadened the scope of the just-transition approach from the energy sector to the food-system with particular emphasis on active engagement by Japanese citizens along the entire food chain to include all societal actors. The final presentation was an empirical analysis of youth climate activism in the Republic of Korea. Beyond the standard argument of intergenerational climate conflicts between the current and future generations, the presentation highlighted the need for solidarity among all marginalised segments of society to fight existing inequalities. Based on these findings, the discussant shared her big-picture insights on achieving the holistic transformation of society and recommended on-the-ground activities with a good local fit to practise environmentally sustainable and socially just transitions in Asia and beyond.

- Environmentally sustainable and socially just Asian net-zero transition is possible.
- Diverse case studies in the Asian region, i.e., the coal phase-out pathway in China, food system change in Japan, and youth activism in the Republic of Korea, were presented to support the just-transition approach and to avoid the resurgence of similar patterns of exploitation through recurrent, pre-existing inequalities.
- Asia needs to take a big-picture and balanced look at just transitions that fit the Asian context and fosters transformative change and climate justice for all in the long term.

## Awakening Individuals towards Realising a **Decarbonised Society: Implications from** "Climate Citizens' Assemblies"



https://isap.iges.or.jp/2022/en/t6.html

#### **Speakers**

#### MIKAMI Naoyuki

Associate Professor, Institute for the Advancement of Higher Education, Hokkaido University

#### WATABE Atsushi

Programme Director, Sustainable Consumption and Production, IGES

#### KAINUMA Mikiko

Research Advisor, IGES

#### Moderator

#### ASAKAWA Kenji

programme Manager, City Taskforce, IGES

## Summary

This session shared information on Climate Citizens' Assemblies held in the UK and Japan, with discussions on what individuals and communities can do to achieve a decarbonised society, in terms of their roles and possibilities based on the 1.5°C Lifestyle Study conducted by IGES. The first speaker presented the significance of the Climate Citizens' Assemblies and the challenges of holding such assemblies in Japan, based on the experience of the assemblies held in Sapporo City and the subsequent events in Kawasaki City, Musashino City in Tokyo and Tokorozawa City in Saitama Prefecture. The second speaker presented the perspective of the Climate Citizen's Assembly as an opportunity for a city and its people to grow, based on the results of the 1.5°C Lifestyle Study. The third speaker presented outcomes from the UK Climate Citizens' Assemblies based on the results of field research on Climate Citizens' Assemblies in Scotland and Oxford. In the panel discussion, participants pointed out the link between activities to raise public awareness and citizens' meetings, and discussed the use of citizens' meetings by Japanese local authorities that have issued zero-carbon declarations to develop concrete proposals. There were also questions from the floor on topics related to the Citizens' Assemblies in addition to climate change.

- In the UK, there are many examples of local authorities using Citizens' Assemblies to develop action plans to respond to the climate crisis declarations. In Japan, efforts should be made to ensure that Climate Citizens' Assemblies contribute not only to raising public awareness but also providing input to climate change policy.
- It is important not only for citizens to view the decarbonisation of society as their own problem through the Climate Citizens' Conferences, but also for stakeholders such as governments to take the initiative to build a decarbonised society in collaboration with citizens.
- The Climate Citizens' Conference is only one step towards decarbonising society; it is important to use it as a catalyst to trigger community-wide initiatives and deepen discussions in society so that the loop of concrete actions can continue.

1 December 11:00-12:00 (GMT+09:00) Net-zero and Resilient Transitions in Asia (2): From Science to Policies and Implementation—or Japan's Contribution to Asia

#### Thematic Track 7

## Japan's Contributions for a Decarbonised Asia: Multi-Layered Approaches Taken by Stakeholders



https://isap.iges.or.jp/2022/en/t7.html

#### **Speakers**

#### MIZUTANI Yoshihiro

Director for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure, Global Environment Bureau, Ministry of the Environment, Japan

#### Nanda Kumar JANARDHANAN

Research Manager, Climate and Energy, IGES

#### KATO Makoto

Member of the Board of Directors and General Manager, Overseas Environmental Cooperation Center (OECC)

#### WATANABE Satoshi

Assistant Director in Office, Office for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure, Ministry of the Environment, Japan

#### SHIGEMATSU Takayuki

Planning Officer for the Joint Crediting Mechanism (ICM), Office for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure, Ministry of the Environment, Japan

#### MC

#### NAGAKURO Kisato

Researcher, Overseas Environmental Cooperation Center (OECC)

#### Q and A Facilitator

TAKAHASHI Yasuo

Executive Director, IGES

## Summary

This session showcased the collaboration of the Ministry of the Environment, Japan (MOEJ), the Overseas Environmental Cooperation Center (OECC) and IGES with their Asian counterparts, and how these collaborative efforts have been helping the region accelerate reaching the net-zero goals.

First, MOEJ introduced various activities that support Asian countries and cities. These include long-term strategy and policymaking; decarbonisation of each sector and dissemination of decarbonised technologies through JCM projects; and the expansion of zero-carbon cities to attain the "decarbonisation domino effect" by promoting city-to-city collaboration with relevant stakeholders.

Second, IGES presented the significance of "co-innovation," an alternative approach to conventional technology transfer, whereby donor and recipient countries develop or fine-tune technologies together.

Third, the OECC introduced the 'Partnership to Strengthen Transparency for Co-Innovation (PaSTI)' and its various activities to enhance capacities for MRV in the ASEAN region, and bilaterally with countries within ASEAN. Particular mention was made of the importance of involving the private sector and collaboration with the financial sector.

During the Q&A session, MOEJ noted that while individual cities are making great efforts, it is also essential to have cooperation and support from the central government. OECC highlighted that involving the private sector is also vital in this context. Three key takeaways from the discussion are:

- MOEJ, OECC and IGES have been supporting science-based policymaking and capacity building in the region. In addition, Japan has been supporting various institutional structures for the implementation of climate mitigation initiatives, in partnership with multiple stakeholders within the region.
- Sociotechnical transition for climate mitigation demands a greater interplay of technology with policies, cultural contexts, infrastructures, businesses and consumer practices.
- Conventional technology transfer approaches have only limited scope in furthering transition in developing economies. This demands alternative mechanisms, such as co-innovation, which are iterative, collaborative and sensitive to local contexts and needs.

1 December 14:00-15:00 (GMT+09:00) Net-zero and Resilient Transitions in Asia (2): From Science to Policies and Implementation—or Japan's Contribution to Asia

#### Thematic Track 8

# India-Japan Environmental Cooperation for Realisation of Net Zero Society in India (Toward India-Japan Environmental Week)



https://isap.iges.or.jp/2022/en/t8.html

#### **Speakers**

#### HAMAGUCHI Toshinori

Programme Manager, Kansai Research Centre, IGES

#### Prosanto Pal

Senior Fellow The Energy and Resources Institute (TERI)

#### NISHIKAWA Junko

Director for Sustainable Infrastructure, Office of Director for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure

#### **Panellists**

#### NAGAI Mihoko

First Secretary, Embassy of Japan in India

#### A V Ghugari

Director, Trinity Engineers

#### WATANABE Jun

Senior Representative, JICA India Office Japan International Cooperation Agency (JICA)

#### KOBAYASHI Takeshi

Chairman, Overseas Committee, Japan Environmental Technology Association

#### Girish SETHI

Senior Director, Energy Program, The Energy and Resources Institute (TERI)

#### Moderator

#### KOJIMA Satoshi

Programme Director, Kansai Research Center, IGES

## Summary

This session presented the activities and achievements of the Japan-India Technology Matchmaking Platform (JITMAP), an initiative of IGES in collaboration with The Energy and Resources Institute (TERI) of India to promote environmental cooperation. Future environmental cooperation between Japan and India was also discussed. First, IGES and TERI introduced JITMAP's activities and achievements to date, including individual case studies. Then, the issues of JITMAP to be addressed, including sustainability of JITMAP activities, organisational strengthening, the organisation's future direction, the implementation of intensive local activities and expansion of support organisations, were shared. Next, a panel discussion was held to discuss future environmental cooperation between Japan and India. First, the Ministry of the Environment, Japan, gave a presentation on the history of Japan-India environmental cooperation and set out the outline and objectives of the India-Japan Environmental Week held in January 2023. Next, the Embassy of Japan in India explained its role in environmental cooperation, followed by a presentation by Trinity Engineers of the company's experience in achieving energy savings through participation in JITMAP activities and gave examples of technologies that micro, small and medium-sized enterprises need assistance with. Then, the JICA India Office introduced its ongoing support for Net Zero in India and examples of a wide range of the financial assistance for local companies, including small and medium enterprises (SMEs). The Japan Environmental Technology Association (JETA) spoke about the need for support tailored to India's situation through understanding the needs of stakeholders and local markets. TERI pointed out the importance of Japan-India cooperation to help India achieve Net Zero by 2070 and the importance of providing continuous support for key energy-intensive industries, including SMEs, through JITMAP.

- Japan-India cooperation will become increasingly important for India to achieve Net-Zero emissions by 2070. It is desirable to keep stressing the importance of this cooperation to various stakeholders in India, including the Indian government, industry and students to raise awareness, and to explore a wider range of cooperation opportunities based on understanding the needs of Indian stakeholders and markets.
- The India-Japan Environmental Week is one of the environmental cooperation initiatives between Japan and India and is expected to be an opportunity to foster cooperation and collaboration not only at the governmental level but also at the business level.
- JITMAP should continue to support energy-intensive industries, especially SMEs, to reduce  $CO_2$  emissions. Utilising the wide range of financial assistance provided by Japan and India for local companies, including SMEs, can be considered. It is time for JITMAP to resume activities in the field, which should be deepened even further and its target area should be expanded.

1 December 16:00-17:00 (GMT+09:00) Net-zero and Resilient Transitions in Asia (2): From Science to Policies and Implementation—or Japan's Contribution to Asia

#### Thematic Track 9

## Bridging Science and Policy: Journey of AP-PLAT for Climate Resilient Asia-Pacific



https://isap.iges.or.jp/2022/en/t9.html

#### **Speakers**

#### YOSHIDA Yuki

Researcher, Center for Climate Change Adaptation, National Institute for Environmental Studies

#### Vishnu Prasad Pandey

Professor and Deputy Executive Director of Center for Water Resources Studies (CWRS), Institute of Engineering, Tribhuvan University

#### Netai Chandra Dey SARKER

Director, Ministry of Disaster Management and Relief, Bangladesh

#### Moderator

#### MIZUNO Osamu

Programme Director, Adaptation and Water, IGES

## Summary

This session discussed the challenges and future prospects of capacity development in climate change adaptation, with a particular focus on the Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT), an initiative by Japan to strengthen partnerships in the region for promoting climate change adaptation. The first speaker emphasised the importance of capacity development and the role of AP-PLAT. The next speaker explained the web-based contents of AP-PLAT introducing climate tools and e-learning courses for capacity development. The third and fourth speakers were policy practitioners from Nepal and Bangladesh, respectively, who highlighted the challenges they are facing in conducting capacity development in developing countries.

Following the presentations, there was an active discussion on identifying barriers and solutions for enhancing adaptive capacity in the Asia-Pacific region. It was highlighted that capacity development is a 10–20-year process and it should be based on a prioritisation strategy. Finally, the session concluded with remarks on how to develop AP-PLAT by engaging closely with its counterparts. Moreover, the start of the partnership will be to identify the gaps and to work together by designing capacity-development programs that adapt to various situations.

- In developing countries, conducting programmes on capacity development is a key issue for climate adaptation, especially in the field of disaster management.
- The Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT) is a partnership initiative that brings together a variety of knowledge on capacity building, collaborating with governments and related institutions in various fields.
- For future developments, it will be important to engage closely with counterparts through AP-PLAT to identify gaps in capacity development while jointly designing capacity-development programs that are adaptable to different situations.

# The Post-2020 Global Biodiversity Framework, and What Else to Expect at CBD COP15



https://isap.iges.or.jp/2022/en/t10.html

#### **Speakers**

#### André MADER

Programme Director, Biodiversity and Forests, IGES

#### NAKAZAWA Keiichi

Director, Wildlife Division, Ministry of the Environment

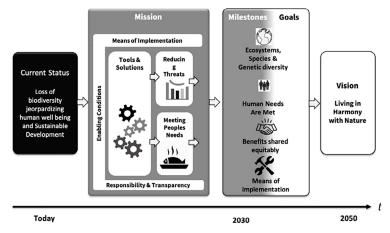
#### Peter BRIDGEWATER

Honorary Professor, Centre for Heritage & Museum Studies, Australian National University

## Summary

This session provided an overview of the Post-2020 Biodiversity Framework (GBF), which will guide the biodiversity strategies and action plans of countries around the world over the next decade, and the process for its finalisation and adoption. The 15th Conference of the Parties to the Convention on Biological Diversity (CBD COP15) will be held in Montreal, Canada, in December 2022, after the original schedule was delayed due to the global outbreak of COVID-19. The first speaker stated that Japan's GBF targets of importance are the 30 x 30 target on protected areas, biodiversity and business, the promotion of nature-based solutions, invasive alien species (IAS) and monitoring. The second speaker remarked that Australia's areas of interests included climate change linkages, sustainable wildlife management, marine and coastal issues, IAS, health and biocultural diversity. Both panellists stressed the importance of monitoring and the linkages between each target.

Figure 1. Theory of change of the framework



- The lessons learned from this GBF process are that the process has become more complex due to the increased use of online communication, which has resulted in delays in progress; the theory of reform surrounding the GBF is not well understood; and the process is not yet complete.
- The most important GBF targets for Japan are the 30 × 30 target on protected areas, biodiversity and business, promoting nature-based solutions, invasive alien species and monitoring.
- In the case of Australia, the most important GBF targets are linkages to climate change, sustainable wildlife management, marine and coastal issues, IAS, health and biocultural diversity.
- Each target must be linked and interdependencies recognised.

# Transformative Actions for a Nature-positive Society from SATOYAMA Initiative towards 2030



https://isap.iges.or.jp/2022/en/t11.html

#### **Opening Remarks**

#### **OKUDA** Naohisa

Director-General, Nature Conservation Bureau, Ministry of the Environment of Japan, MOEJ

#### Speakers

#### MIWA Koji

Policy Researcher, Biodiversity and Forest, IGES

#### Dipayan DEY

Chair, Research & Innovation, South Asian Forum for Environment

#### Paulina G. KARIMOVA

Research Assistant, Department of Natural Resources and Environmental Studies, National Dong Hwa University

#### Kuang-Chung LEE

Professor, Department of Natural Resources and Environmental Studies, National Dong Hwa University

#### Closing Remarks

#### WATANABE Tsunao

Director of the Secretariat of the International Partnership for the Satoyama Initiative (IPSI)

#### Moderator

#### MIWA Koji

Policy Researcher, Biodiversity and Forest, IGES

## Summary

With the draft of the Post-2020 Global Biodiversity Framework (GBF)\* in mind and drawing on case examples from the Satoyama Development Mechanism projects, the session discussed nature-positive actions and their transformative potential. Opening remarks highlighted the potential contribution of "socioecological production landscapes and seascapes (SEPLS)" to the Post-2020 GBF and the urgency of nature-positive actions in "the Decisive Decade" up to 2030. A framing presentation shared current global biodiversity discourses and important findings from the recent IPBES assessments relating to transformative change and policy uptake. The first case presenter shared his experiences in indigenous community-led SEPLS conservations in Arunachal Pradesh, India. The second case presenters shared their efforts in resilience assessments in SEPLS and policy engagement in Chinese Taipei. The following discussions identified the keys to implementing nature-positive actions and achieving their policy uptake, such as tackling production-consumption and urban-rural linkages, learning from practices in decision-making processes, and engaging the government and wider stakeholders in assessments. Closing remarks called for continuous and collective actions in SEPLS to realise a society in harmony with nature.

- Nature-positive actions are urged under the Post-2020 Global (Kunming-Montreal) Biodiversity Framework, in which socioecological production landscapes and seascapes (SEPLS) have the potential to make important contributions.
- Tackling production-consumption and urban-rural linkages is key to implementing nature-positive actions and to achieving related policy uptake.
- Learning from practices in decision-making processes and engaging the government and wider stakeholders in assessments can facilitate the implementation of nature-positive actions.

On 19 December 2022 adopted as the Kunming-Montreal Global Biodiversity Framework by CBD-COP15

# Introduction of forthcoming UNEP Report entitled: Strengthening the Environmental Dimension of the Voluntary National Reviews in Asia and the Pacific: Lessons Learned and Ways Forward



https://isap.iges.or.jp/2022/en/t12.html

#### **Speakers**

#### Jinhua ZHANG

Regional Coordinator, Science-policy, Asia Pacific Office, United Nations Environment Programme (UNEP)

#### Xin ZHOU

Research Leader, Integrated Sustainability Centre, IGES

#### Louis MEULEMAN

Director, Public Strategy for Sustainable Developme (PS4SD)

#### Moderator

#### Simon Hoiberg OLSEN

Research Manager, Integrated Sustainability Centre, IGES

## Summary

This session provided information on the launch of a UNEP Report entitled Strengthening the Environmental Dimension of the Voluntary National Reviews in Asia-Pacific: Lessons Learned and Ways Forward. The first speaker presented background information on the publication that reviewed 50 Voluntary National Reviews (VNRs) and pointed to the important role of governance in promoting greater implementation action on environment-related SDGs. This was followed by a presentation giving an overview of the report's main findings, including that countries in the region are lagging behind on the SDGs compared with the rest of the world, and that VNRs are an important exercise for countries to tackle the complex and interlinked SDGs. A third speaker provided an overview of the data and indicators that are crucial for measuring SDG progress. She said that all five Asian and Pacific subregions had regressed on SDGs 12 and 13 and had made only slow progress on SDGs 14 and 15. The final speaker gave an overview of the concept of metagovernance and provided several examples of the importance of consciously selecting governance styles effective for generating action on the SDGs, as the choice would impact priorities related to the SDGs.

- The Asia-Pacific region has fallen behind the world on SDG action, and the environment-related SDGs remain the weakest link. All five Asian and Pacific subregions have regressed on SDGs 12 and 13 and have shown only minimal progress on SDGs 14 and 15. More ambitious action is needed on the environmental dimension of the SDGs in the time remaining before 2030.
- The SDG Voluntary National Reviews are important not only for the global review process on the SDGs but are key for countries' own domestic policy evaluation.
- Research shows that market-oriented governance approaches dominate in countries with SDG policies. While the private sector is an important player, governments should not abdicate their responsibilities and must consider the importance of rules and regulations, particularly in the case of environment-related SDGs.

## What Makes Reliable Data for Microplastics Policy?



https://isap.iges.or.jp/2022/en/t13.html

#### **Opening Remarks**

#### Monti RANATHUNGA

Secretary, Ministry of Water Supply, Sri Lanka Introduction to the session

#### Amila ABEYNAYAKA

Policy Researcher, Sustainable Consumption and Production, IGES

#### Speakers

#### Madhubhashini MAKEHELWALA

Senior Chemist, Joint Research and Demonstration Centre for Water Technology, Ministry of Water Supply

#### Van-Hieu PHAM

Deputy Head, Division of Marine Environmental and Ecological Research, Vietnam Institute of Seas and Islands, Vietnam

#### Panellists

Ngoc-Bao PHAM Deputy Director, Adaptation and Water, IGES

TAMIYA-HASE Noriko Deputy Director, Office of Policies against Marine Plastics Pollution Ministry of the Environment of Japan

YANO Naoki Assistant Director, Global Environment Department, Japan International Cooperation Agency (JICA)

#### **HONDA Shunichi**

Programme Management Officer, International Environmental Technology Centre, United Nations Environment Programme (UNEP IETC)

#### Moderator

#### Premakumara Jagath DICKELLA GAMARALALAGE

Director of CCET, Sustainable Consumption and Production, IGES

## Summary

This session began by introducing the emerging issue of microplastics (MPs) which comprise a diverse range of contaminants. The presence of MPs in all the major environmental compartments, their persistence in human exposure pathways and their reported harmful impacts make considering long-term monitoring and evidence-based policymaking in the future a necessity. Next, the capacity-building needs focussing on MPs monitoring and evidence-based policymaking were discussed by Sri Lanka and VietNam, based on two studies conducted by the IGES Centre Collaborating with UNEP on Environmental Technologies (IGES-CCET) in collaboration with national and international partners in 2022. The presenters highlighted the need to build awareness in general, as well as to train skilled staff for monitoring activities, ensure institutionalisation focusing on monitoring systems, organise infrastructure and facilities, establishing harmonised methodologies and to produce findable, accessible, interoperable, and reusable (FAIR) data to address MP pollution. The effective application of experiences with past and ongoing capacity-building activities on tackling plastic pollution and MPs were then discussed by the Ministry of the Environment, Japan (MOEJ) and the Japan International Cooperation Agency (JICA). Finally, the importance of national and regional actions for tackling MP pollution in line with the ongoing international legally-binding instruments on plastic pollution negotiations was highlighted.

- Microplastics (MPs), an emerging pollutant, comprise a diverse range of contaminants, which will remain in the environment over the next few centuries.
- There are knowledge, skills and facility gaps that must be addressed to achieve sound monitoring and derive policy implications based on evidence.
- Harmonised methods and capacity-building programmes must focus on generating FAIR data and deriving evidence-based policy recommendations targeting MPs pollution.
- The inevitability of mutual benefits of the ongoing global negotiations to address plastic pollution
   (i.e. international legally-binding instrument on plastic pollution) and capacity building that targets MP
   monitoring and policy recommendations.

## Global Initiatives and Good Practices for Mitigating Open Waste Burning



https://isap.iges.or.jp/2022/en/t14.html

#### **Panellists**

#### Sandra M. MAZO-NIX

Programme Manager, Climate and Clean Air Coalition (CCAC)

#### Terry TUDOR

Open burning theme lead, Engineering X

#### Aditi RAMOLA

Technical Director, Technical Cooperation International Solid Waste Association (ISWA)

#### Ana ZHAO

Co-director and Co-founder, Rock Environment and Energy Institute (REEI)

#### Charlie FENN

Programme Manager, Safer End of Engineered Life, Engineering X, Royal Academy of Engineering

#### Bimastyaji Surya RAMADAN

Junior lecturer, Environmental Engineerin Department, Universitas Diponegoro / IGES-CCET Intern

#### Premakumara Jagath DICKELLA GAMARALALAGE

Director of CCET, Sustainable Consumption and Production

#### Moderator

#### **HONDA Shunichi**

Programme Management Officer, International Environmental Technology Centre, United Nations Environment Programme

## Summary

This session discussed the urgency of addressing open-waste burning, which is a common practice in developing countries. The speakers representing policymakers, practitioners, academics and development partners highlighted its impacts on the environment and human health, by releasing hazardous chemicals and greenhouse gases (GHG) such as dioxins and furans, volatile organic chemicals and short-lived climate pollutants. The reasons for engaging in open-waste burning include reduction of waste volume, low waste collection coverage, particularly in rural areas, a lack of land for final disposal, low awareness among residents and a lack of funding for waste management.

The speakers also identified that, although legislative and policy development are fundamental to reducing open burning, enforcement and monitoring are significant challenges in many countries. It is also vital to implement other initiatives, such as establishing integrated solid-waste management systems, raising awareness of the impacts of open burning and developing more scientific evidence and good practices.

Considering the importance of evidence-based policymaking, the result of scientific literature analysis on the international research on open-waste burning was shared, including the fact that while biomass and crop residue burning are more focused areas, there is also a lack of information for appropriate policy recommendations on municipal solid waste, including plastic and e-waste burning.

- While open-waste burning is a traditional and common practice for managing waste in the global South, it makes significant harmful contributions to the emissions of a wide array of hazardous substances, most of which are toxic and harmful to the environment and human health.
- Previous experiences in many countries show that legislative and policy development, its enforcement, financial allocations for integrated solid-waste management and environmental stewardship are crucial for controlling and mitigating open-waste burning.
- For developing proper policy recommendations, more scientific baseline studies, good practices and knowledge sharing can be promoted at the regional and global levels.

## Expectations and Challenges for International Cooperation to Tackle Plastic Pollution



https://isap.iges.or.jp/2022/en/t15.html

Opening Remarks
TAKAHASHI Yasuo
Executive Director, IGES

Keynote Speaker
Shardul Agrawala

Head, Environment and Economy Integration Divisio OECD Environment Directorate

Speakers

TOKAI Tadashi

Professor, Tokyo University of Marine Science and Technology

SUZUKI Go

Chief Senior Researcher, Material Cycles Division, Nationa Institute for Environmental Science

AOKI-SUZUKI Chika

Senior Researcher/ Deputy Director, Sustainable Consumption and Production Area, IGES

MIZUTANI Tsutomu

Director, Office for Recycling Promotion, Environment Regeneration and Resource Circuration Bureau, Ministry o the Environment of Japan

Ellen Putri Edita

Research Associate, Regional Knowledge Centre for Marine Plastic Debris, ERIA

Lea Gajewski

Program team, Greenpeace Japan

Closing Remarks

TANAKA Yoshinori

Environmental Restoration and Conservation Agen (ERCA)

Moderator

**HOTTA Yasuhiko** 

Programme Director, Sustainable Consumption and Production Area, IGES

## Summary

This session discussed the recent trends in the area of international negotiations on plastic pollution and the relevant scientific research, as well as possible ways for further international cooperation on this issue. The OECD's newly released "Global Plastics Outlook" provides a detailed analysis of the international status of plastic pollution from a policy and economic perspective. To prevent the leakage of plastics by 2060, it stresses the importance of implementing internationally harmonised lifecycle policy packages, as well as comprehensive actions including support for infrastructure development and technology transfer for plastic pollution prevention to developing countries. In Japan, the harmonisation of monitoring methods is making progress based on the Guidelines for Harmonizing Ocean Surface Microplastic Monitoring Methods. Research is also being conducted on the pathways by which plastics are discharged into the ocean and how they are degraded in the process to accurately assess the state of plastic pollution. The 1st international negotiations for a legally-binding instrument for plastic pollution were held in late 2022. The latest report from the negotiation indicated that the participants showed interest in health and climate issues, and the importance of adopting lifecycle approaches against plastics. In many ASEAN countries, as well as in Japan, companies have already taken actions to address plastic circularity. However, speakers also reported on issues such as the lack of recycling facilities in developing

- It is essential to implement policies covering different stages from the mining, product design and disposal stages in an internationally harmonised manner.
- Different types of business-oriented efforts for plastic circulation can be seen in emerging and developing countries. However, remaining issues should also be tackled, such as a lack of recycling facilities and ambiguity in the definition of biodegradability.
- It is essential to move forward with research on harmonising the monitoring methods for ocean-drifting microplastics, as well as research on the pathways of plastic leakage and the degraded process of plastics, to accurately assess the pollution status and to promote appropriate science-based policy measures.

## **Programme**

## Plenary Session

| 28 Nov | vember   |
|--------|--|
| 13:30  | Opening  |
|        | [Guest Remarks]  NISHIMURA Akihiro Minister of the Environment, Government of Japan  KOITABASHI Satoshi Vice Governor, Kanagawa Prefectural Government   |
|        | [Organiser's Remarks]  |
| 13:50  | TAKEUCHI Kazuhiko President, IGES  |
| 14:00  | Keynote Speech   |
| 14:30  | TANAKA Akihiko President, JICA   |
| 14:35  | Plenary Session 1  |
|        | Can Climate and Biodiversity Catch up with More Successful Sustainable Development Indicators?   |
|        | [Speakers]  Kristie EBI Professor, Center for Health and the Global Environment (CHanGE), University of Washington  HASHIMOTO Shizuka Associate Professor, The University of Tokyo/ Senior Fellow, IGES / Multidisciplinary Expert Panel Member, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Lead Author for IPBES Global Assessment and the Asia-Pacific Regional Assessment  [Moderator]  André MADER Programme Director, Biodiversity and Forests, IGES |
| 15:20  | TAMURA Kentaro Programme Director, Climate and Energy, IGES  |
| 15:25  | Plenary Session 2  |
|        | On the Ground Practices at National and Local Levels - Climate and Biodiversity  |
|        | [Speakers]  Dhanalekshmy SIVANI Local government, Kerala, India  KASAI Takahiro Section Chief, Policy Planning & Coordination Division, Sado City  UCHIDA Togo Director, ICLEI Japan Office  FUJITA Kaori Senior Deputy Editor, Nikkei ESG / Professor, Graduate School of Life Sciences, Tohoku University  [Moderator]   |
| 16:10  | Eric ZUSMAN Research Leader, Integrated Sustainability Centre, IGES  |
| 16:15  | Plenary Session 3  |
|        | From Science to Policy to Action   |
|        | [Speakers] TANIGUCHI Makoto Deputy Director-General, RIHN Center, Research Institute for Humanity and Nature (RIHN) Vibha DHAWAN Director General, TERI Chang Hoon LEE President, Korea Environment Institute (KEI) HAYASHI Yoshitsugu President, The Japanese Association of the Club of Rome Sandrine DIXSON-DECLEVE Co-President, The Club of Rome TAKEUCHI Kazuhiko President, IGES  |
|        | [Moderator]  |
| 17:10  | TAKAHASHI Yasuo Executive Director, IGES   |
| 17:10  | Closing  |
| 17:15  | [Closing Remarks] KAWAKAMI Tsuyoshi Acting Managing Director, IGES   |

| 25 Nov | rember: Accelerating Implementation of the SDGs "Put SDGs on the Ground"   |
|--------|--|
| 11:00  | Thematic Track 1   |
|        | Solar Sharing on Abandoned Farm-lands as Key Accelerator to Create Regional Circular and Ecological Spheres (Regional-CES)   |
|        | [Presentations] INOUE Yasuko President, Takarazuka Sumire Power Generation, Co. OGAWA Ryuichi Visiting Researcher, Symenergy, Co. (IGES visiting researcher) [Panel Discussion] [Commentator] SUGA Noriaki Director, Hyogo Prefecture  |
|        | [Moderator]  |
| 12:00  | TANAKA Yugo Policy Researcher, Kansai Research Centre, IGES  |
| 13:30  | Thematic Track 2   |
|        | Climate Change Actions and Regional Sustainable Development Synergies  |
|        | [Greeting from UCCRN]  Maria Dombrov Urban Climate Change Research Network (UCCRN)   |
|        | [Speakers]  Ana Karen MENDIVIL VALENZUELA Deputy Director for Climate Change, Ministry of Environment of Mexico City (SEDEMA)  Gian Carlo DELGADO Researcher, Institute of Geography, National Autonomous University of Mexico  HAMURA Tamon Deputy Director General of Environmental Affairs Bureau, Department of the Environment and Residential Life, Kumamoto Prefecture (Japan)  Joana PORTUGAL PEREIRA Assistant Professor, Federal University of Rio de Janeiro (COPPE/UFRJ) (Brazil)  Chuck KUTSCHER Fellow, Renewable and Sustainable Energy Institute, University of Colorado Boulder (US)  Minal PATHAK Associate Professor, Global Centre for Environment and Energy, Ahmedabad University (India)  Tashi WANGMO Governor, Samdrupjongkhar Dzongkhag Administration (Bhutan)  Pamela FENNELL Lecturer in Urban Building Energy Modelling, Bartlett School of the Environment, Energy and Resources, University College London (UK)  Silvia ASSALINI Covenant of Mayors Europe Office (EU)  [Session Coordinator/Moderator]  KAMEI Miho Researcher, Integrated Sustainability Centre, IGES |
| 15:00  |  |
| 16:00  | Thematic Track 3   |
|        | IGES Contributions to "Climate and SDGs Synergy"   |
|        | [Opening Remarks] TAKEUCHI Kazuhiko President, IGES  |
|        | [Video Message]  Bahareh Seyedi Senior Sustainable Development Officer, UN DESA  |
|        | [Message]  Daniele Violetti Senior Director, Programmes Coordination, UNFCCC   |
|        | [Panellists] HOTTA Yasuhiko Programme Director, Sustainable Consumption and Production, IGES MATSUO Akane Policy Researcher, Adaptation and Water, IGES Mustafa MOINUDDIN Deputy Director, Integrated Sustainability Centre, IGES  |
| 17:00  | [Moderator]  FUJINO Junichi Programme Director, Integrated Sustainability Centre, IGES   |
| 30 Nov | vember: Net-zero and Resilient Transitions in Asia (1): A Socio-economic Dimension and Demand-side Management  |
| 11:00  | Thematic Track 4   |
|        | Achieving a Net-Zero Future in Asia: From Individual Innovation to Societal Transformation   |
|        | [Speakers] TAMURA Kentaro Programme Director, Climate and Energy, IGES Sarah BURCH Executive Director Waterloo Climate Institute Meredydd EVANS Team Lead and Senior Staff Scientist, Pacific Northwest National Laboratory  |
|        | [Discussant] Sudarmanto Budi NUGROHO Principal Policy Researcher, City Taskforce, IGES   |
| 12:00  | [Moderator] Nanda Kumar JANARDHANAN Research Manager, Climate and Energy, IGES   |

14:00 **Thematic Track 5 Socially Just Net-Zero Transitions in Asia** [Speakers] Vigya SHARMA Senior Research Fellow, Centre for Social Responsibility in Mining, Sustainable Minerals Institute, University of Queensland WATABE Atsushi Programme Director, Sustainable Consumption and Production, IGES Kyu Youn CHOI Research professor, DAAD-Center for German and European Studies, Chung-Ang University [Panel Discussion] [Discussant] Helena NORBERG-HODGE Director, Local Futures [Moderator] So-Young Lee Research Manager, Integrated Sustainability Centre, IGES 15:00 16:00 Thematic Track 6 Awakening Individuals towards Realising a Decarbonised Society: Implications from "Climate Citizens' Assemblies" MIKAMI Naoyuki Associate Professor, Institute for the Advancement of Higher Education, Hokkaido University WATABE Atsushi Programme Director, Sustainable Consumption and Production, IGES KAINUMA Mikiko Research Advisor, IGES [Moderator] ASAKAWA Kenji programme Manager, City Taskforce, IGES 17:00 1 December: Net-zero and Resilient Transitions in Asia (2): From Science to Policies and Implementation—or Japan's Contribution to Asia 11:00 **Thematic Track 7** Japan's Contributions for a Decarbonised Asia: Multi-Layered Approaches Taken by Stakeholders MIZUTANI Yoshihiro Director for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure, Global Environment Bureau, Ministry of the Environment, Japan Nanda Kumar JANARDHANAN Research Manager, Climate and Energy, IGES KATO Makoto Member of the Board of Directors and General Manager, Overseas Environmental Cooperation Center (OECC) **WATANABE Satoshi** Assistant Director in Office, Office for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure, Ministry of the Environment, Japan SHIGEMATSU Takayuki Planning Officer for the Joint Crediting Mechanism (JCM), Office for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure, Ministry of the Environment, Japan [MC] NAGAKURO Kisato Researcher, Overseas Environmental Cooperation Center (OECC) [O and A Facilitator] TAKAHASHI Yasuo Executive Director, IGES 12:00 14:00 **Thematic Track 8** India-Japan Environmental Cooperation for Realisation of Net Zero Society in India (Toward India-Japan Environmental Week) HAMAGUCHI Toshinori Programme Manager, Kansai Research Centre, IGES Prosanto Pal Senior Fellow The Energy and Resources Institute (TERI) NISHIKAWA Junko Director for Sustainable Infrastructure, Office of Director for International Cooperation for Transition to Decarbonization and Sustainable Infrastructure [Panellists] NAGAI Mihoko First Secretary, Embassy of Japan in India A V Ghugari Director, Trinity Engineers WATANABE Jun Senior Representative, JICA India Office Japan International Cooperation Agency (JICA) KOBAYASHI Takeshi Chairman, Overseas Committee, Japan Environmental Technology Association Girish SETHI Senior Director, Energy Program, The Energy and Resources Institute (TERI) [Moderator] KOJIMA Satoshi Programme Director, Kansai Research Center, IGES 15:00 16:00 **Thematic Track 9** Bridging Science and Policy: Journey of AP-PLAT for Climate Resilient Asia-Pacific YOSHIDA Yuki Researcher, Center for Climate Change Adaptation, National Institute for Environmental Studies Vishnu Prasad Pandey Professor and Deputy Executive Director of Center for Water Resources Studies (CWRS), Institute of Engineering, Tribhuvan University Netai Chandra Dey SARKER Director, Ministry of Disaster Management and Relief, Bangladesh MIZUNO Osamu Programme Director, Adaptation and Water, IGES 17:00

#### 2 December: Pursuing Nature-positive Societies 11:00 **Thematic Track 10** The Post-2020 Global Biodiversity Framework, and What Else to Expect at CBD COP15 [Speakers] André MADER Programme Director, Biodiversity and Forests, IGES NAKAZAWA Keiichi Director, Wildlife Division, Ministry of the Environment Peter BRIDGEWATER Honorary Professor, Centre for Heritage & Museum Studies, Australian National University 12:00 14:00 **Thematic Track 11** Transformative Actions for a Nature-positive Society from SATOYAMA Initiative towards 2030 [Opening Remarks] OKUDA Naohisa Director-General, Nature Conservation Bureau, Ministry of the Environment of Japan, MOEJ TAKEUCHI Kazuhiko President, IGES MIWA Koji Policy Researcher, Biodiversity and Forest, IGES Dipayan DEY Chair, Research & Innovation, South Asian Forum for Environment Paulina G. KARIMOVA Research Assistant, Department of Natural Resources and Environmental Studies, National Dong Hwa University Kuang-Chung LEE Professor, Department of Natural Resources and Environmental Studies, National Dong Hwa University [Closing Remarks] WATANABE Tsunao Director of the Secretariat of the International Partnership for the Satoyama Initiative (IPSI) [Moderator] MIWA Koji Policy Researcher, Biodiversity and Forest, IGES 15:00 16:00 **Thematic Track 12** Introduction of forthcoming UNEP Report entitled: Strengthening the Environmental Dimension of the Voluntary National Reviews in Asia and the Pacific: Lessons Learned and Ways Forward Jinhua ZHANG Regional Coordinator, Science-policy, Asia Pacific Office, United Nations Environment Programme (UNEP) Xin ZHOU Research Leader, Integrated Sustainability Centre, IGES Louis MEULEMAN Director, Public Strategy for Sustainable Development (PS4SD) Simon Hoiberg OLSEN Research Manager, Integrated Sustainability Centre, IGES 17:00

#### 5 December: Achieving Pollution-free Societies

14:00 Thematic Track 13

| 1 -             | pening Remarks] onti RANATHUNGA Secretary, Ministry of Water Supply, Sri Lanka  |
|-----------------|---|
|                 | stroduction to the session]   |
| "               | nila ABEYNAYAKA Policy Researcher, Sustainable Consumption and Production, IGES   |
| [S <sub>I</sub> | peakers]  |
| Ma              | adhubhashini MAKEHELWALA Senior Chemist, Joint Research and Demonstration Centre for Water Technology, Ministry of Water Supply             |
| Va              | n-Hieu PHAM Deputy Head, Division of Marine Environmental and Ecological Research, Vietnam Institute of Seas and Islands, Vietnam           |
| [Pa             | anellists]  |
| Ng              | goc-Bao PHAM Deputy Director, Adaptation and Water, IGES  |
| TA              | MIYA-HASE Noriko Deputy Director, Office of Policies against Marine Plastics Pollution Ministry of the Environment of Japan                 |
| YA              | NO Naoki Assistant Director, Global Environment Department, Japan International Cooperation Agency (JICA)                                   |
|                 | DNDA Shunichi Programme Management Officer, International Environmental Technology Centre, United Nations Environment Programme (UNEP IETC) |

#### 16:00 Thematic Track 14

#### Global Initiatives and Good Practices for Mitigating Open Waste Burning

[Panellists]

Sandra M. MAZO-NIX Programme Manager, Climate and Clean Air Coalition (CCAC)

Terry TUDOR Open burning theme lead, Engineering X

Aditi RAMOLA Technical Director, Technical Cooperation International Solid Waste Association (ISWA)

Ang ZHAO Co-director and Co-founder, Rock Environment and Energy Institute (REEI)

Charlie FENN Programme Manager, Safer End of Engineered Life, Engineering X, Royal Academy of Engineering

Bimastyaji Surya RAMADAN Junior lecturer, Environmental Engineering Department, Universitas Diponegoro / IGES-CCET Intern Premakumara Jagath DICKELLA GAMARALALAGE Director of CCET, IGES Sustainable Consumption and Production

HONDA Shunichi Programme Management Officer, International Environmental Technology Centre, United Nations Environment Programme 17:00

17:30 **Thematic Track 15** 

**Expectations and Challenges for International Cooperation to Tackle Plastic Pollution** 

[Opening Remarks]

TAKAHASHI Yasuo Executive Director, IGES

[Keynote Speaker]

Shardul Agrawala Head, Environment and Economy Integration Division, OECD Environment Directorate

[Speakers]

TOKAI Tadashi Professor, Tokyo University of Marine Science and Technology

SUZUKI Go Chief Senior Researcher, Material Cycles Division, National Institute for Environmental Science

AOKI-SUZUKI Chika Senior Researcher/ Deputy Director, Sustainable Consumption and Production Area, IGES

MIZUTANI Tsutomu Director, Office for Recycling Promotion, Environment Regeneration and Resource Circuration Bureau, Ministry of the Environment of Japan

Ellen Putri Edita Research Associate, Regional Knowledge Centre for Marine Plastic Debris, ERIA Lea Gajewski Program team, Greenpeace Japan

[Closing Remarks]

TANAKA Yoshinori Environmental Restoration and Conservation Agency (ERCA)

[Moderator]

HOTTA Yasuhiko Programme Director, Sustainable Consumption and Production Area, IGES

19:00

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