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SESSION REPORT

591

The Asia We Want: A Clean and Green Asia



BUILDING COMMUNITY THROUGH REGIONAL COOPERATION



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Salzburg Global Seminar would like to thank all participants for donating their time and expertise to this Session.

This report is dedicated to the memory of multi-time Fellow and friend of Salzburg Global Seminar, **Surin Pitsuwan** (1949 – 2017).

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The Asia We Want: A Clean and Green Asia

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Report Authors:
Roli Mahajan and
Tatsiana Lintouskaya

Photos:
Herman Seidl and
Tannaz Khomarloo

Contributors:
Marifrance Avila,
Wilson John Barbon,
Xixi Chen,
Sandeep Choudhury,
Chochoe Devaporihartakula,
Salinee Hurley,
Abner Lawangen,
Tari Lestari,
Roli Mahajan,
Niall O'Connor,
Minh Nguyet Pham,
Magdalena Seol,
Trinnawat Suwanprik and
Qingchan Yu

Editor:
Louise Hallman



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SESSION SUMMARY

*“Rising leaders in Asia are aware of their responsibility to steer transition to sustainable and climate resilient economies and are strongly committed to Asian community development inspired by cooperation at local and global levels. Our new multi-year program, *The Asia We Want: Building Sustainable Communities Through Regional Cooperation*, is there to support and empower young leaders working to advance inclusive low-carbon development in their communities. We aim to expand this program in the coming years and build a dynamic cross-border network for practical collaboration and lasting results in line with the Sustainable Development Goals.”*

Tatsiana Lintouskaya, Program Director, Salzburg Global Seminar

In 2017, as the world met in Bonn, Germany to agree upon the finer details of the Paris Agreement, 25 young Asian leaders gathered in Salzburg, Austria to develop a shared vision of a “Clean and Green Asia,” strengthen commitment to sustainable and equitable development that is inspired and informed by inter-regional cooperation, and to advance innovative approaches to environmental sustainability and inclusive low-carbon development in their communities.

The inaugural session of the new, multi-year program *The Asia We Want: Building Community through Regional Cooperation*, supported through a generous grant by the Japan Foundation and with support from the Korea Foundation, was the first step to form a network of dynamic young leaders from across the region and to build their capacity to work together to address such environmental, climate and energy concerns.

Setting the Stage for the Asia We Want

Ahead of the program in Salzburg, the selected young leaders were invited to submit op-eds ahead of the program, sharing their thoughts on what kind of Asia they wanted to see and what they view as being the most pressing challenges. Their articles (pages 18 to 38) demonstrate how vulnerable Asia is to a growing number of environmental and climate change risks and emphasize the need to urgently address critical environmental issues and to generate innovative ways of effective regional and sub-regional cooperation.

Indeed, Asia has become more important to the world than ever before as the continent has become almost synonymous with growth. This growth has had a tremendous impact on cityscapes, human lives and the environment. However, this growth will not cease; estimates say that by 2050, 70 percent of humanity will live in urbanized areas and more than half of that urban population will be in East Asia alone. Consequently, demand for energy is rapidly increasing and will continue to do so. The growing, upwardly mobile middle class will consume more, spend more, and use more natural resources to maintain and further increase their quality of life as they move to urban areas. Consequently, they will add more carbon dioxide to the atmosphere and put tremendous pressure on the already stretched planetary boundaries.





We do not currently have adequate systems in place to tackle these challenges, which are a direct consequence of growth and expansion in Asia. Unless we develop a “global consciousness,” we will not be able to survive. In his last address at Salzburg before he passed away three weeks later, Surin Pitsuwan, session facilitator, multi-time Salzburg Global Fellow and the former Secretary-General of Association of Southeast Asian Nations (ASEAN), explained the concept of “global consciousness” when he raised issue of whether Asians were facing the backlash to globalization as severely as the West. “Global consciousness,” according to Pitsuwan, is when we unite as one species and work together to survive together.

“We in the East, who were wary of globalization because we feared being dominated, we have learned to tame the beast of globalization. We have learned to live with it comfortably. However, the West is now turning away from globalization. We need to rethink the concept of ‘globalization.’ In the end, it is about how we share the fruits of science and technology and prosperity, equally and equitably. Otherwise, this world will be full of problems and there will be violence,” stated Pitsuwan in Salzburg.

So how do we facilitate cooperation to sustain the environmental pillar along with the economic and social pillars? How do we work together to survive together?

Surin Pitsuwan – Asia must develop a common sense of urgency toward environmental issues

Former ASEAN Secretary-General says Asia must run its own sustainability efforts

As a former Secretary-General of ASEAN (the Association of Southeast Asian Nations) and a former Minister of Foreign Affairs for Thailand, Surin Pitsuwan is no stranger to the developments of Asian countries, their international and financial relations, and how to build a better future for the region.

Speaking about the value and importance of the session, *The Asia We Want: A Clean and Green Asia*, Pitsuwan highlighted how the session had brought together many of Asia’s talents scattered around the world creating positive change as technocrats, diplomats, scientists, and members of civil society, and gave him hope for the region’s future.

“We do have a lot of expertise [in the region], but being spread around the world. [...] If we try to bring them together and get them focused on some of the issues...of a green and clean Asia – it’s rather heartening to listen to them taking the issue very seriously, bringing their own expertise and their own experiences, to bear on the issues in front of them.”

Recognizing the scope of the challenges ahead, Pitsuwan argued that a grand, coordinated response is needed: “The problems are too big for any one individual, one discipline or one sector. Certainly don’t leave it to the international institutions, don’t leave it to the private sector, don’t leave it to the academic





“We need regional cooperation, we need coordination, and we need certainly passionate commitment from the younger generation because the world is theirs.”

Surin Pitsuwan, Former ASEAN Secretary-General

institutions... We need cooperation, we need coordination and we need certainly passionate commitment from the younger generation because the world is theirs,” he said.

While he hoped the next generation of leaders would find new, innovative solutions, he urged them to remember and build on all the good foundations that have been laid down before them, recalling the famous words of Sir Isaac Newton: “If I have seen further, it is by standing upon the shoulders of giants.”

When asked about elements that put ASEAN’s sustainability efforts in jeopardy, Pitsuwan urged ASEAN “to be conscious of the fact that... there are some [skeptics] that are in positions of leadership and power.” But he remained optimistic: “That could turn around” as these prominent skeptics begin to recognize that environmental degradation and climate change will negatively impact the global community as a whole. This growing common sense of an urgent challenge “has driven the global community to try to help and collaborate and support Asia’s search for their own solutions.”

These solutions need to be wide-ranging and region-led “We need a multi-dimensional approach to many of these global challenges or even regional challenges... [National leaders] need to understand the context and complexity of all these problems,” he said.

“ASEAN will have to get together and adopt a common approach... [We need to] create our *own* resources, our *own* funding, raise the awareness among our *own* people... It has to be a regional approach, it has to be a collaborative effort among the countries in the region,” he urged.

This regional approach is all the more important, Pitsuwan argued, in light of the West turning inward, as exemplified by Brexit and US President Donald J. Trump’s “America First” foreign policy: “It is sending us the signal that we can’t depend on the generosity of the rest of the world forever,” he said.

Pitsuwan hoped that upon leaving the session, the Fellows would take their new knowledge and networks back with them to the region and use and build on them in the years of their careers to come. While the 25 young leaders who took part in the Salzburg session still have long careers ahead of them, the time to act is now, not far ahead in the future, he warned. “If we’re not careful, [environmental degradation] is going to go beyond the point of return.”

But Pitsuwan remained optimistic: “That sense of urgency and sense of collective awareness [that was displayed in Salzburg] is extremely inspiring – powerful.”

SURIN PITSUWAN 1949 – 2017

Just three weeks after he helped facilitate this new multi-year program series at Salzburg Global Seminar, Surin Pitsuwan died, aged 68.

A champion of Asia's role in the global community, Pitsuwan was committed to sharing the lessons – and challenges – of Asia with the rest of the world. He leaves behind an invaluable legacy at international and regional level, and deeply impressed everyone who met him at Salzburg Global Seminar.

Known for his commitment to democracy and regional identity, Pitsuwan entered politics in 1986 after being elected as a MP for his hometown, a seat he successfully defended for several terms. He went on to serve as Minister of Foreign Affairs of Thailand from 1997 to 2001. Between 2008 and 2012, he served as Secretary General of the Association of Southeast Asian Nations (ASEAN), a period that saw a significant improvement in the regional organization's involvement in global affairs.

A participant in multiple Salzburg Global programs, during his participation in the 2016 session on *Leadership for Regional Cooperation in Asia for the 21st Century*, Pitsuwan reflected on his time as ASEAN Secretary-General, saying, "Asian leadership needs to be transformative, trans-generational and transnational – it's collective," as he envisioned "a stronger, more effective, more confident, and more unified East Asia."

Speaking at the session, *A Clean and Green Asia*, Pitsuwan attributed sharing his knowledge and helping break down barriers as the inspiration behind his work, saying, "You don't live for yourself and by yourself alone; the worth and the meaning of your existence depends on your human network.... You can be a good man or woman only in the context of a society."



A beneficiary of many scholarships and generous opportunities himself, particularly during his education and early career, Pitsuwan said he was always driven by a need not to pay back his benefactors, but to help others, especially young people, benefit similarly: "If my experiences are needed, if my knowledge is of any help to anybody, I would be willing to travel far and often in order to share the experiences, the inspiration, and the knowledge that have been accumulated through the years... It is the passion to share with others that has driven me... To extend the circle of goodwill," he added.

Clare Shine, Salzburg Global Vice President and Chief Program Office said of Pitsuwan, "For such a prominent leader, Surin was a rare mix of intellect, enthusiasm and generosity, especially with rising younger talents. He often quoted W.B. Yeats' famous line from *The Second Coming*: 'The best lack all conviction while the worst are full of passionate intensity,' urging people to join forces for a better world. Surin was a wonderful friend to me personally and to Salzburg Global Seminar.

"We will dearly miss his unique blend of conviction and passionate intensity."

Answering the Question of Survival

To exchange experience and stimulate peer-learning, the young leaders provided a snapshot of countries and communities by briefly presenting their countries' situation and main priorities for change.

Increasingly aware of sustainable development and climate change related challenges, Asian countries are taking action toward a more low-carbon and environmentally sustainable development. Many governments have set ambitious goals and introduced various regulations, policies and programs to address the most critical issues and challenges, including the following:

- **Japan** created an ambitious “Hydrogen Society Roadmap” in 2014 to help the country achieve energy and environmental security. However, whether such an initiative – to power the society through hydrogen on such a large scale – can become a reality is yet to be seen.
- **The Republic of Korea** has adopted a “National Strategy for Green Growth” and the “Framework Act on Low Carbon Green Growth.” It plans to reduce its greenhouse gas emissions by 37% by 2030 and aims to strengthen its capacity for climate change adaptation.
- **China** has committed to lowering the carbon intensity of its GDP by 60–65%; to increasing the share of non-fossil energy carriers of the total primary energy supply to around 20% by 2030; and increasing its forest stock volume by 4.5 billion cubic meters. It has also passed the “Circular Economy Promotion Law” to reduce energy intensity
- **Malaysia** has re-pledged to reduce its carbon dioxide emissions by 45% by 2030 to address climate change and global warming. The new pledge was driven by the encouraging results of a reduction of 33% seen between 2005 and 2015.
- **Thailand** has adopted the “Environmental Quality Management Plan 2017-2021” to address a number of issues including air and water pollution, as well as hazardous waste management. The Thai cabinet also approved its Intended Nationally Determined Contribution (INDC) aiming to reduce greenhouse gas (GHG) emissions by 20-25% from the projected business-as-usual levels by 2030.
- **India** has one of the most ambitious targets when it comes to clean energy. The National Solar Mission and Mission on Enhanced Energy Efficiency are working to achieve the target of generating 175 gigawatts (GW) of renewable energy by 2022. India is moving towards sustainability; it remains to be seen whether it will be able to maintain its momentum.

Although the majority of participants in Salzburg felt optimistic about their countries' plans and initiatives, they also acknowledged implementation, monitoring and enforcement are often weak. Session facilitator, Charles Morrison, Distinguished Senior Fellow and former President, East-West Center, emphasized the importance of ensuring the sense of urgency is shared by political leaders and decision-makers. Also, Asian countries need to build stronger institutions and strengthen environmental and climate change governance. They also need to invest more in clean and green technology, which can also create new market opportunities.

Looking at critical issues across Asia, session facilitator Niall O'Connor, Director of the Stockholm Environment Institute's Asia Centre, emphasized the need for a holistic approach and called for decision-makers to see opportunities in challenges. The future developmental pattern in Asia is still too focused on fossil fuels despite the fact that the price of renewable energy has dropped to where it is equitable with fossil fuels and other types of energy. Developing low-carbon economies and building the right infrastructures would bring significant additional benefits for societies, ranging from energy security to public health to agricultural productivity. Fast-changing technology will open up new possibilities, particularly in artificial intelligence, which might bring completely new and unimaginable solutions based on its power of unprecedented information accumulation and analysis. According to O'Connor, we need to pay attention and harness the power of technology among other opportunities. He called on young leaders to connect to the right political decision-makers and work to influence them, to strengthen cooperation with various institutions in order to build their



capacity and break silos, as well as to involve the whole spectrum of stakeholders from civil society to private sector.

As an example of work done to bring together various actors, O'Connor offered an example of the Sustainable Mekong Research Network (SUMERNET), which aims to achieve sustainable development of the Mekong Region through strengthening knowledge-based policy processes and thus influence policy and practices to achieve the Sustainable Development Goals (SDGs).

Talking about other successful examples of existing regional cooperation and networks in Asia, the session's fourth facilitator, Mushtaq Memon, Regional Coordinator for Resource Efficiency at the United Nations Environment Programme, presented the case of the EU-funded SWITCH-Asia Network, designed to tackle the current sustainable consumption and production trends. He presented lessons learned from their work on the "circular economy" – a system that re-delivers materials to value lines and supply chains to be reused again and again through cross-industry collaboration – and discussed its contribution to national sustainability agendas in Asia, which can become even more significant in the light of increasingly advanced enabling technologies. However, in order to guarantee access to financing and technology for developing countries, barriers need to be removed for investments and trade in the waste management sector to generate funds and implement sound technologies. Political will is very important to make the difference, therefore young leaders all have a role to play in facilitating the shift to a circular economy.



Finding Solutions and Expanding Collaborations

In the second part of the program, the participants picked topics on which they wanted to collaborate and develop their own project proposals.

Introducing this program component, Clare Shine, Vice President and Chief Program Officer of Salzburg Global Seminar said, “We are talking about creating a network of influencers through these projects.” As a result, participants suggested four visionary project ideas:

ASIA INTEGRATED APPROACH FOR BLUE SKY (AIABS)

Addressing the regionally shared challenge of air quality and air pollution, this project group will seek to coordinate activities by the Asian Environmental Compliance and Enforcement Network, Asian Development Bank, and ASEAN Secretariat (among others) to suggest solutions to the challenge of cross-border problem air pollution. Such strategies would include working through ASEAN to set higher air quality standards for the region; working with partners to pressure compliance and monitoring by city governments; and opening a call for proposals for civil society monitoring of air quality.

CATALYZING 3S (SMALL, SUSTAINABLE, AND SCALABLE) FINANCING

This project will address the challenges many small and medium-scale projects face when seeking financing in Asia. These challenges include a lack of financing mechanisms, cumbersome administration, the frequent lack of collateral, and the difficulty of projecting such small projects’ social and environmental impacts. The project is seeking to create a project hub for developers to showcase their projects and to benefit from collective efforts to access technology; measure economic and other impacts; access decision-makers in government and financial institutions; and demand better access to finance.

COMMUNITY RESPONSIBLE WASTE MANAGEMENT SYSTEM

To address high-levels of waste generation, poor waste segregation rates, and issues of waste collection diversion and final disposal (especially in rural areas), this project is seeking to create a community-responsible waste management system that can be scaled-up across multiple communities over time. The system would make the local community responsible for their own waste management, but incentivize them to improve the system to reduce costs. The local community would decide their own needs for a waste management system and include consideration of community benefit from the by-products created.

DEVELOPING AND TESTING AN ITERATIVE AND INCLUSIVE PROCESS FRAMEWORK TOWARDS LOCAL CARBON DEVELOPMENT

This project is designing a framework for multiple sectors to achieve goals in contributing to a low-carbon or decarbonized society. Focusing initially on agriculture, transport and energy, the project will design a process framework, developing case study documents, and will use the next phase of the *Clean and Green Asia* network’s development to test and refine that framework using online collaboration and field testing in four specific institutional settings.

All four projects were interconnected in a number of areas and the final presentations included instances of how they could plug the work of other teams or use another participant's expertise for better results. Almost all projects emphasized the need and usage of evidence-based scientific processes as well as the need to engage citizens and to use technology better for providing solutions to different problems.

O'Connor suggested that: "Central to everything we do is humanity. Put humans in the center when you design. Strengthen policy frameworks and institutional capacities. The challenge might be urgent but everything has a crack in it; through that, light gets in."



Next Steps

The next generation of Asian leaders will be on the frontline of all of the major environmental challenges and opportunities facing today's world and the program, *The Asia We Want: A Clean and Green Asia*, enhances their capacity to address these pressing needs across the region and support integrated approaches to achieve the Sustainable Development Goals (SDGs).

Back in their home countries, participants have continued their collaboration and work across borders to advance the projects started at Schloss Leopoldskron. Building on the dynamic work established in 2017, Salzburg Global Seminar plans to expand practical collaboration and lasting results in specific areas relevant to the future of Asian cooperation for environmental sustainability as well as climate and energy concerns, and will continue developing a network of dynamic young leaders from across the region.

We are currently planning a follow-up meeting and are interested in joining forces with stakeholders and fostering new partnerships in the effort to help young leaders make their vision of a "Clean and Green Asia" a reality.

“Central to everything we do is humanity. Put humans in the center when you design. Strengthen policy frameworks and institutional capacities. The challenge might be urgent but everything has a crack in it; through that, light gets in.”

Niall O'Connor



FELLOWS' OP-EDS

“Asia can truly be a resilient towering continent if all countries pull together”

Abner Lawangen, Disaster Risk Reduction, Environmental and Natural Resources Officer, Tublay, Philippines

“[A clean and green Asia] will need to be a combined approach, networking all actors and stakeholders, within countries and across borders, to ensure the national and transboundary impacts of our lifestyles are understood, our cultures and heritage cherished and embraced by us all, to help us inspire future change towards this sustainable path.”

Niall O'Connor, Asia Center Director, Stockholm Environment Institute, Bangkok, Thailand

Members of the inaugural cohort of Fellows in *The Asia We Want* series included leaders working in fields related to energy and climate, environmental protection and governance, urban planning, technology, culture and media.

To harness the wide array of interests and expertise, each of the Fellows was invited to submit an op-ed, offering a vision for the Asia they want to see, and offering possible strategies and solutions to help achieve these different visions.

Submissions came from Fellows working in countries across the region: China, India, Indonesia, Myanmar, the Philippines, the Republic of Korea, Thailand, and Viet Nam, as well as those working for Asian interests in the US.

The Fellows' op-eds are presented here in alphabetical order.

Marifrance Avila – “For us to achieve the Asia that we want, we need to start with achieving the country that we want”

City official offers a vision for a sustainable Philippines to reach the dream of a green Asia

The Philippines is an archipelagic country endowed of both mineral and natural resources that have the potential to meet the basic needs of the people and to support a far more prosperous and equitable society – if it were not for the historical confluence of different factors: a legacy of colonial plunder and its current-day forms, the inability to address the roots of the worsening global climate crisis, and the failure of governance to address the ecological and socio-economic realities of our times. This is not only a reflection of my own country but more of a picture of the Asia we are.

Asia is a rich continent not only of its natural resources but of its people and its culture. The Asia we dream of is a haven of cultural integration, a venue of intellectual discourse, a place of economic progress, climate resilience and a green Asia.

However, this vision is not something we can achieve in a blink of an eye. This involves hard work, dedication and collaboration. In my country, we are keen to address issues of the environment. In Makati City for example, we make sure that economic advancement does not derail our efforts to protect the environment we live in. Makati, as a highly-urbanized city, focuses on managing its greenhouse gas (GHG)

emissions. The GHG Management Plan allows the city government to analyze the emissions produced within its geographic boundary and to identify appropriate climate change mitigation options through policies and programs. Using the inventory report as a backbone for a scientific baseline analysis of trends in GHG emissions, the plan serves as Makati City’s blueprint for climate change actions.

This is just one of the initiatives that we can impart to our neighboring countries in Asia. For us to achieve the Asia that we want, we need to start with achieving the country that we want. We need to make sure that where we live is a sanctuary not just for its people and culture, but also for our floras and faunas; a country where people are sensitive not only to their own needs but also to the needs of their surroundings. As Barry Commoner said: “The first Law of Ecology: Everything is connected to everything else.” We are but one in this world, interconnected and intertwined. What we do in our own country will ripple and multiply. This is how we can realize the country we dream of – and the Asia we want.

Marifrance R. Avila is currently the focal person for both Climate Change and Water and the Pollution Section of the Pollution Control and Regulation Division of the City in Makati City in the Philippines.



Wilson John Barbon – “Disasters are not natural phenomena. They are the result of human and social conditions”

Myanmar Country Program Coordinator at the International Institute of Rural Reconstruction offers his vision for a disaster-resilient Asia

The imminent eruption of Mt. Agung in the tourist island of Bali, Indonesia filled the news in Asia. A number of countries had already issued travel warnings for the island. But despite all of these warnings, I still flew into Bali at the beginning of October together with the hundreds of tourists. It seemed like despite all the ominous news both (real and fake) in social media, Bali still enjoys 95 percent occupancy.

I was in Bali to facilitate two events related to disaster risk reduction (DRR); namely a two-day orientation on community-managed DRR for a number of local community-based organizations (CBO) from Timor Leste; and a learning conference on the role of local leadership in building disaster resilience in Indonesia and Timor Leste. I thought to myself this is an opportune time to talk about disaster resilience of local communities within the shadows of a possible eruption of Mt. Agung.

On the first day of my interaction with CBO leaders from Timor Leste, I had just two key messages for them about building people’s resilience against disasters and climate change.

The first message I always teach is: disasters are not natural phenomena. They are the result of human and social conditions. In the parlance of disaster risk reduction, we differentiate hazards from disasters. Hazards are the events (both natural and human acts) that have the potential to create serious disruption in the way of life of people and their communities. These disruptions we refer to as disasters. How people are affected is a result of human and social conditions.

Then the second message I teach is: resilience building starts with changing the mindsets of individual people. It’s about shifting to a new way of looking at our development challenges. A resilience mindset is having the ability to be aware of and to understand the hazards that we are exposed to; it is about having the ability to calibrate one’s exposure and vulnerability to these hazards; and finally, it is the ability to determine and act on building coping capacities to better survive and bounce back quickly from these hazards. Therefore, building community resilience is a process of capacity development. Resilience cannot be just handed over to communities. Communities, through their local leadership, have to build their own resilience.

I call on development players to shift toward a mindset that disasters are social development issues; that individuals and communities have the ability to choose whether they will be a disaster victim or a survivor. Secondly, I call on local communities that they should continue to organize, mobilize and innovate to address the social, economic and political root causes of disaster risks. And I believe local leadership plays a big role.

While Mt. Agung looms in the backdrop of our event in Bali, I hope that the voices we gathered and the relationships built among local leaders will start the ripple towards building a more resilient Asia.

Wilson Barbon is currently the country program coordinator for Myanmar tasked to take leadership in setting up and establishing the International Institute for Rural Reconstruction (IIRR) presence in Myanmar.

Xixi Chen – We need integrated, collaborative, and bottom-up leadership to build a cleaner and greener Asia

Environmental Defense Fund manager shares her vision for new kinds of leadership needed to tackle the challenge of climate change

2015 saw the historic successful deal of the Paris Agreement, which symbolized the unanimous determination from nearly 200 countries to fight against climate change and emphasized the climate leadership of the collaboration among all countries. But 2017 has seen this leadership transformed, if not demolished.

On June 1, 2017, the new administration of the United States announced that the country will withdraw from the Paris Agreement. It was a big setback for the green community. However, four days later, the CEO of Unilever made the announcement saying “we are still in,” followed by thousands of city mayors, business CEOs, and non-profit organization leaders. The decision of the president of the US did not change or stop the joint effort from a cross-section communities of the country and beyond to help reduce carbon emissions. This new rising leadership on climate change and sustainability, is different from the top-down national-level leadership we are used to seeing – it is a stronger integrated force, incorporating all kinds of bottom-up community-level efforts working together.

To build a cleaner and greener Asia, this is the new leadership we need and it can help bridge us into the long-term future in the face of inevitable short-term political unitability and uncertainties in many different parts of the world.

This new force of leadership on climate requires strong and effective collaboration on community level, letting leaders from cities, businesses, investors, colleges and universities, local communities, to come and work together toward the same goal: providing fresh air, clean water,

safe food, affordable energy, and a healthy environment to everyone in Asia – and the world.

As the Chinese philosopher Lao Tzu said, “a journey of thousand miles begins with a single step.”

Helping businesses and communities set their own big and achievable science-based goals on emissions reduction and sustainability is that crucial first step. Once we have the goals, we will need to overcome the communication barrier and build high-quality conversations to help us move forward together because Asian countries are so diverse in cultures and languages and the social and economic developments are uneven.

Using advanced technologies to build the best-practice sharing platform can help strengthen the collaboration among our communities; if there is an innovative transportation solution in one city, how can we effectively share the solution with other cities? Regional high-impact initiatives need to be applauded and encouraged, and the resources and tools that can help maximize the impacts should be replicated and shared across industries and regions with lower cost and higher accessibility.

Undoubtedly, market-based policies and innovative financing mechanisms will also help accelerate the collaboration and scale up positive results because the best environmental solutions are always strong business cases too.

This is not an easy pathway and there is a lot of work need to be done along the road. But the future looks more promising and exciting because a future Asia with better networked

and collaborative communities will be not only cleaner and greener, but also more resilient and prosperous.

Xixi Chen is a manager at the Environmental Defense Fund based in New York where she focuses on clean energy, green supply chain, and corporate partnerships.



Sandeep Choudhury – “The Asia we want should be one based on equitable growth and not the disparity we see today between the rich and the poor”

Climate change expert calls for Asia to learn from its mistakes, return clean and sustainable land use practices and harness modern technology

Two thirds of the world’s poor live in Asia. More than 850 million people lack access to safe drinking water and over 2 billion lack access to improved sanitation. Energy demand is set to double in the coming years. Education and women’s issues remains a big concern. Already we see large parts of South East Asia and South Asia ravaged by hurricanes and floods, which has led to millions being displaced. There are other areas with droughts and food security to deal with. Ethnic and political violence has led to the creation of millions of refugees, which compounds the problem further. Set against this backdrop, it is imperative that we understand the localization of problems and come up with solutions that are inclusive as well as bottom up. Communities need to be engaged, and not in superficial ways. Time is of the essence and the bureaucracy across governments needs to be streamlined for quicker delivery.

The Asia we want is a coming together of modern technology to deliver last mile development as well as draw upon the ethos and traditions of the olden days. Frugal consumption patterns and community living was the norm in Asia, before massive industrialization and population

growth spurred millions to migrate and clog the cities of Asia, as well as drive up unsustainable consumption and poverty levels. Asia is comprised of agrarian economies in large parts, and it would be ideal if we could go back to days of clean and sustainable land use practices.

The Asia we want should be one based on equitable growth and not the disparity we see today between the rich and the poor. While the emerging economies in Asia are growing and with energy demands set to rise, it is important that this growth is achieved in a sustainable manner and not in the same way that we witnessed the developed world grow through the 20th century.

We have to learn from our mistakes and take this next growth cycle in Asia as an opportunity to grow in a manner which is not detrimental to our existence in the future.

Sandeep Choudhury is the co-founder of VNV Advisory Services, responsible for the initiation and development of the climate change expertise.





Chochoe Devaporihartakula – A clean and green Asia needs compliance and transparency

Program manager for the Institute for Global Environmental Strategies (IGES) shares her vision to urgently address and reduce air pollution in Asia

Urbanization is increasingly perceived as a serious issue that threatens to undermine recent advances towards sustainable development in Asia. Currently, 48 percent of the population in Asia is living in urban areas and is expected to grow to 64 percent by 2050 according to the United Nations. The highest rate of urban population growth is predicted to take place in Asia and Africa, which will have significant consequences on natural resources, energy consumption, greenhouse gas emissions and climate change, while air pollution levels attributable to urban development already far exceed World Health Organization (WHO) standards and are likely to rise substantially in the coming decades.

While other regions are exposed to unhealthy levels of air pollution, Asia accounts for the

largest share of ambient PM_{2.5} (atmospheric particulate matter (PM) that have a diameter of less than 2.5 micrometers) and is responsible for millions of deaths. In Southeast Asia, urban air pollution is ranked among the highest in the world with many cities showing pollution levels five to 10 times above WHO limits. Those of us who live in Southeast Asia's mega-cities know that air pollution is a problem. But the public is only now beginning to learn just how dangerous this problem has become. A recent study by the University of Chicago found that air pollution is shortening the lives of Viet Nameese citizens by 1.16 years. Earlier this year, Harvard University and Greenpeace estimated that air pollution from the region's coal-fired power plants could be killing 20,000 people per year. It is often the poor who suffer disproportionately from environmental health risks associated with air pollution effects.

The Asia we want can only be made clean and green by ensuring effectiveness of environmental compliance and increasing transparency and accountability of all stakeholders. Every country has limited resources that must be used effectively to foster greater compliance with the law and improved protection for people and the environment. National governments, city officials, local communities, and regional cooperation through networks such as Asian Environmental Compliance and Enforcement Network (AECEN) must collaborate to make sure steps are taken in order to regulate and monitor pollution sources at the very early stage. This would ensure fewer polluting sources, reduced health impacts, more efficient economic growth, and greater economic returns to the country. Most Asian countries currently lack advanced technology used for pollution monitoring. Therefore, proper mechanisms such as prioritizing high risk threats through regulations, incentive programmes to motivate compliance, and advanced technology for more accurate and less expensive monitoring can help all countries leap forward

in the effectiveness of their compliance and enforcement efforts.

Dealing with air pollution is a global challenge but the good news is that during the First Asia-Pacific Ministerial Summit on the Environment held in Bangkok in September 2017, 30 countries in Asia-Pacific committed to move towards a clean and green Asia-Pacific with highlights on the urgency of addressing environmental health risks associated with pollution and promoting resource efficiency measures and practices. Let's hope and see if this initiative can really lead to sustainable urban development and nature-based solutions – and not just another commitment that is left on the shelf.

Chochoe Devaporihartakula is the programme manager for the Institute for Global Environmental Strategies (IGES) and the Training Event Specialist for the Regional Resource Center for Asia and the Pacific at the Asian Institute of Technology (AIT).

Salinee Hurley – Replacing kerosene with solar power: an incomparable way to mitigate climate change

Renewable energy engineer and social entrepreneur offers her vision for a clean and green Asia

Energy is the backbone of development, yet thousands of communities in Southeast Asia, including a large proportion of ethnic communities settled on the Thailand-Myanmar border, do not have access to basic grid-connected electricity.

Lack of access to a reliable source of electricity creates both short and long-term health and safety risks. During the evening hours, villagers

depend on light from candles and kerosene lamps that are unreliable, expensive and accompanied by very serious fire risks. A safer but more expensive substitute is utilizing car batteries, which requires frequent trips to diesel generator charging stations.

Both kerosene lamps and candles pose fire hazards and only inefficiently provide light. In fact, kerosene lamps provide only one percent

of global lighting, yet are responsible for 20 percent of lighting related CO2 emissions. Worse yet, household use of kerosene and to a smaller extent diesel contributes black carbon to the atmosphere – the most absorbent form of particulate matter by mass. Thus, one kilogram of black carbon absorbs as much solar light in two weeks as 700 kilograms of carbon dioxide circulating in the atmosphere for 100 years. The daily indoor usage of kerosene can also be considered equally harmful to smoking around 40 cigarettes per day and thus represents a major cause of deadly respiratory diseases.

As particles stay in the atmosphere for no more than 14 days, replacing kerosene lamps represents a hard and fast way to mitigate climate change with immediate localized environmental benefits beyond compare in the climate world.

Our social enterprise expresses these issues by introducing affordable, reliable solar energy products and services to these rural communities. The business model is based on introducing a new – and desperately needed – product and service into multiple isolated regions in a sustainable manner that directly

benefits marginalized and impoverished rural populations. The strategy and activities link unmet needs with unused resources while simultaneously providing employment and capacity development opportunities for local people.

The introduction of renewable energy sources to our target communities permanently and positively alters the development trajectory of the families that choose to participate in our program and purchase our products. Their health improved, their productivity enhanced, and the risk of destructive fires reduced.

The project also indirectly benefits the environment and empower women and young girls, as it reduces the need to collect wood for fuel firelight, thus slowing deforestation, and in some cases providing electricity for improved water and sanitation systems.

Salinee Tavaranan Hurley is an engineer, a social entrepreneur and the director of the Border Green Energy Team, which provides renewable energy technology to underprivileged communities along the Thailand-Burma border.



Abner Lawangen – Asia can truly be a resilient towering continent if all countries pull together

Disaster risk reduction officer urges Asia to pull together to help countries prepare for and recover from climate change devastation

Climate change brings havoc to communities. It stagnates development globally, but impacts are worst felt in developing countries, whose economic activities are climate sensitive, including most countries in Asia. Asia hosts approximately 60 percent of the world's population and 48 percent of the world's poor according to the Oxford Poverty Human Development Initiative's global multidimensional poverty index (MPI) 2017, making it a crucial consideration in climate vulnerability discussions.

The high interdependence of the basic socio-economic activities of these countries to climate and the environment make them susceptible to significant change of the climatic behavior. Alteration in the climate pattern and system would bring tremendous pressure to the socio-ecological systems of these communities, but they often lack the resources and capacities to cope, resulting in economic and social instability. Furthermore, climate change worsened natural hazards amplifying the risks of these poor communities to climate disasters.

In recent years, climate hazards such as strong typhoons/hurricanes, droughts and torrential rainfall have impact several countries in Asia. Typhoon Haiyan (locally known as Yolanda) for instance that hit the Philippines in 2013, caused a multi-billion loss of property and a thousand fatalities. Similarly, Typhoon Nargis hit Myanmar in 2008, resulting in more than 80,000 deaths and complex socio-economic loss. A blizzard in Afghanistan in 2008 killed more than 1000 people. Heavy rain has caused devastating landslides in Japan, China, India

and other parts of Asia, among other climate related disasters. Annually, most Asian countries are pouring billions from their scarce resources into rebuilding and rehabilitating these disaster-damaged assets, compromising other socio-economic resources like education, health and sanitation, gender development and others. This dynamic steered by climate disasters puts these countries in a perilous state, which threatens the different social support systems and hinders development.

These catastrophes evidently demonstrate the vulnerability of these Asian countries and the need to improve efforts to deal these climate hazards; scientists have affirmed that the continent will be the most vulnerable area to climate risks in the future.

Further, as was apparent during these disasters, there is no existing support system from the different Asian countries, making it difficult for the countries affected to recover. Pulling together all the capacities of Asian countries and establishing a support system to respond to climate disasters will improve risk resiliency of each countries and ensure continuity of economic and social development among these countries. A support system for these Asian countries may come in various forms such as sharing of best practices, inter-country humanitarian and capability building support, technical expertise and technology transfer and among others.

As a saying goes, "the whole is greater than the sum of its parts." Asia can truly be a resilient towering continent if all the individual capacities

of its countries were put together to combat climate change. It is now a challenge to us current stewards of this continent to make it a better, safer and resilient place for other next generations.

Abner Lawanger has been a disaster risk reduction, environmental, and natural resources officer for five years in Tublay, an indigenous municipality in Northern Philippines.



Tari Lestari – A clean energy transition is the only way to create a better future for Asia

Project manager at the South Pole group says clean energy will create enormous investment opportunities, sustainable growth, economic benefits and prosperity for Asia

One of the biggest battles to save the climate from collapse needs to be fought in Southeast Asia. The region has been referred to as the center of gravity of the new global energy system by the International Energy Agency (IEA). Southeast Asia is currently facing a major challenge in finding a balance between energy security, environmental sustainability (limiting its greenhouse gas emissions) and economic competitiveness. A clean energy transition is the only way to create a better future for the region.

It will create enormous investment opportunities, sustainable growth, economic benefits and prosperity.

Southeast Asia has led the world in carbon emission growth per capita by a 263 percent increase in CO₂ emissions from 1990 to 2013 (World Bank, 2017). The region is also expected to experience a strong economic growth with an average of GDP growth rate of over six percent throughout this decade which led to a



substantial increase in energy demand from its growing population (ASEAN Energy Center). In meeting this need, many countries in the region are pursuing new coal-fired power plants – a highly-polluted fuel – due to its low cost. A Harvard report predicted that if all projected plants become operational, Asian coal emissions could triple by 2030. Meanwhile, Southeast Asia itself is highly vulnerable to climate risks furthered by those growth expectations, which would see almost 90 percent of its population suffer substantial loss and damage from climate change impacts.

The World Bank President said that Asia's power plant plans are a disaster for the climate. Unfortunately, a convergence of forces that have created an almost ideal ecosystem for coal investment is present in Southeast Asia today. An unholy alliance of cheap financing to fund and incentivize the export of Chinese, Japanese and South Korean coal technology, coupled with the supply of abundant and cheap coal from Indonesia and the willingness of energy policymakers in Southeast Asian countries to prioritize coal for short-term gains, plus a missing functioning system to support clean technology innovation and startup companies, puts big hurdles into the path to the low carbon transition. The region is locked into high-carbon growth despite abundant and commercially attractive low-carbon resource potential and high climate vulnerability levels.

On the other hand, despite promoting renewable energy and green growth domestically,

China, Japan and South Korea continue to fund coal in Southeast Asia and lead the list of G20 countries financing global fossil fuel expansion. The three countries made up almost 80 percent of international coal finance in 2007 to 2015 which mainly flew to Indonesia, Viet Nam, Philippines and India (NDRC, 2016). Additionally, China with its Belt and Road Initiative (a massive infrastructure plan to foster trade and connectivity throughout Asia and Europe) has raised concerns that other countries participating in this initiative could suffer similar air quality and environmental issues faced by China.

A concerted, multi-dimensional effort is ultimately required to face this battle. Southeast Asian countries need to focus on aligning its energy systems with its climate goals through adopting cheaper renewable energy solutions, improving energy efficiency, promoting the cleaner use of fossil fuels, and finding safe ways to introduce nuclear energy into the energy mix. While the global trend of an exponential drop in levelized cost of production of clean energy technologies has not yet converted into business development and investments in Southeast Asia today, quickly decreasing clean energy costs will become competitive in the region on a wide scale, making existing and new coal plants obsolete within the next three to five years.

Sri (Tari) Lestari is a Project Manager/Consultant at South Pole Group (SPG), a global provider of climate change and sustainability solutions.

Roli Mahajan – The case for mandatory environmental service

Journalist urges Asia to engage more closely with nature for their own wellbeing – and economic prosperity

Let us take a few minutes off our busy lives and imagine a world where conscription is mandatory in all countries but with a slight twist. Instead of a military conscription, what if it is mandated that one serves the state through environmental service. During this mandated period, one is asked to take time off to bond with and serve nature by choosing sustainable practices, living a minimalistic life-style and working on solutions which can be implemented by them as professionals. The idea might sound bizarre but it has its own merits.

As more and more people move to the cities in search of better economic opportunities, the green cover shrinks, infrastructural demands overtax cities, while cities struggle to provide quality living standards to their constantly increasing population. It is but natural that people will no longer be at one with nature. What one does not see or touch, is automatically just an exotic pleasure and not something you know how to connect with.

Some cities are exploring greener and cleaner options like vertical gardens, zero emission buildings but these initiatives are outnumbered by irresponsible ventures which solely concentrate on moolah and not wellbeing. City-planners are not mindful of green infrastructure and often concentrate on short-term benefits like finding opportunities to earn a quick buck or nurture nepotism.

Organic food seems to have become a trend but farmers are struggling to produce more by using an abundance of chemical fertilizers, and ordinary people do not have a green thumb, time or space to try their hand at growing their own food. Even if they could, one wonders how

they would get access to clean water and air. To top it all, green and clean spaces seem to be a privilege that only the rich can afford. The poorer parts of the city are left with filth, potholes and shrubs (if any) as growth there is “unplanned.”

If you think that wanting a green Asia where people value nature is an unrealistic and intangible measure of the wellbeing of the continent or its people, then let us touch upon the economics of human capital and growth.

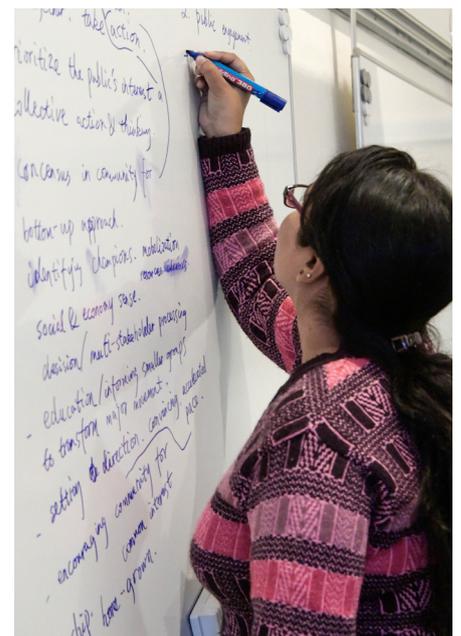
Asian cities are growing because they are hailed as the engines of economic growth. For example: Xingtai in China, 400km from Beijing, generates its pollution from coal production – a bane to China’s environment but an unshakable source of energy for economic growth.

But polluted cities are not conducive to productive human behavior. An OECD report states that air pollution is not only one of the most serious environmental risks but also the cause of 5.5 million premature deaths globally in 2013. A 2014 working paper finds that labor productivity falls when air pollution rises. On the other hand, the researchers at the University of Michigan say that after just an hour interacting with nature, memory performance and attention spans improved by 20 percent. In workplaces designed with nature in mind, employees are more productive and take less sick time.

So mandated bonding time with nature makes perfect sense. It would inspire us to concentrate on wellbeing, live minimally and sustainably. It might help us envision an Asia that might not be growing like tiger or a dragon but at such a pace that it can sustain a minimalistic lifestyle for all its people.

All in all, the idea should incite us to question systems and help them adapt. After all, a clean and green region/country/locality will not become a reality unless we innovate, pick on unconventional solutions that focus on collective wellbeing, and include the environmental pillar too.

Roli Mahajan is a freelance journalist and communications consultant. She has worked as an assistant producer, blogger, journalist, social media consultant, and analyst for organizations like WSPA, DFID, Love Matters and the World Bank.



Niall O'Connor – We need to take a “business as unusual” approach

Director of Stockholm Environment Institute’s Asia Center lays out his vision

“Clean fresh air and clear, pure water; clean beaches and oceans; clean, green, quiet and sustainable cities, with open, transparent political systems that supports and works for a sustainable future, throughout Asia.”

Not a lot to ask for! But a heck of a lot harder to work towards. This is the Asia I want, this is, in fact, the world I want.

Sadly, today we often see the direct opposites happening, with increased air and water pollution, in cities, rivers and oceans leading to declining human health, food security and climate change. We see rapidly growing and crowded unhealthy cities, rapidly changing demographics, corrupt business, and political regimes greedily securing the money to protect their future, while the rest remain under-educated, under-employed, and under-resourced. The rich continue to get richer, at the expense of the poor. Our degrading environment pushes us all further into pending disaster, but, we can still turn the corner!

The path to get us there will need to be based on a new “business as unusual” approach, where we will need to link new evidence based science, new and old technologies and new business

models, to support the global demand for sustainable development and the achievement of the universally accepted and supported Sustainable Development Goals.

We will need to clearly understand and ensure awareness of the impacts of our choices, now and for the future. We will need to ensure both civil society and the business community can work alongside governments to support and develop their nations, for their people. We will need to co-produce the policies, the best practices and future we want, aware of our ability and obligation to conserve for current and future generations, this only planet we have.

It will need to be a combined approach, networking all actors and stakeholders, within countries and across borders, to ensure the national and transboundary impacts of our lifestyles are understood, our cultures and heritage cherished and embraced by us all, to help us inspire future change towards this sustainable path.

Niall O'Connor became director of SEI's Asia Centre in March 2016. He has a wealth of experience, having worked in NGOs, governments and in academia.



Minh Nguyet Pham – “Air pollution is a spider web”

Program officer at the Global Green Growth Institute in Viet Nam shares her personal experience of air pollution in her country – and what needs be done to tackle it

One morning I woke up and couldn't see the building opposite my apartment. Everything was blanketed in a gray and thick air. I didn't know what it was. My mom used to say that it was because of the weather (indeed, Viet Nameese usually make “the weather” accountable for changes in the environment that affect them but outside of their control). Then I took a 40 minute-ride to the office and felt totally dizzy and exhausted. I didn't know what kind of “weather” that was. Soon enough I realized it was the smoke, the dust, and everything else in the air.

The Environmental Performance Index (EPI) conducted by Yale University in 2016 ranked Viet Nam 79th out of 132 nations in environmental quality. Moreover, air quality in Viet Nam is ranked among the worst in the world, number 123. The sources of emission are mainly from coal-fired power plants, transportation, industrial emission, construction activities, waste incineration, household emission and transboundary pollution. In the city, transportation contributes a major share. Ho Chi Minh City alone has 7.3 million motorbikes (the highest number of motorbikes in the world) and more than 600,000 cars, consuming a total of 4 million liters of fuel a day. In the north, Ha Noi is surrounded by factories and coal-fired power plants. When there is no rain or little wind, we all get a share of the manufacturing.

Air pollution is not a single problem. It is the result of a complex system failure that can't be solved with a single answer. In Viet Nam, air pollution is a spider web of overlapping responsibilities and policies that no single entity is willing to take up the task to solve it. The Ministry of Transportation, the Ministry of Natural Resources and Environment, the Ministry of

Industry and Trade, the City's People's Committee and its Department, and the Provincial People's Committee and its Department are all responsible to monitor air quality. Yet, none have done it. Since it's in everyone's mandate, it becomes a common good and no one is willing to take the lead. As a result, millions of adult and children, including myself, suffer from respiratory diseases that are all because of “the weather”. After the forests, agriculture land, and water, is Viet Nam selling its last resources for economic gains?

As the air has thickened over the years, the future looks bleak. We might not be able to reverse what we've done but it's not too late to bring back what we lost. Viet Nam needs to recognize the side effects of its 20 years of economic development and give priority to clear up the consequences of the past. Air pollution is one of them.

Viet Nam should set up an independent committee to monitor air pollution and investigate the sources of emission. Entities that do not follow environmental regulations should be punished and those who do should be rewarded. Further, it needs to put in place strict regulations on private vehicles and provides appropriate incentives for enforcement. More importantly, Viet Nam needs to give investment priorities to public transportation and take advantage of technology to ensure their effectiveness and efficiency.

Only when policy is green and policy implementation is adequate, does change happen in a way that we can all appreciate. *Minh Nguyet Pham is a program officer at the Global Green Growth Institute in Viet Nam.*

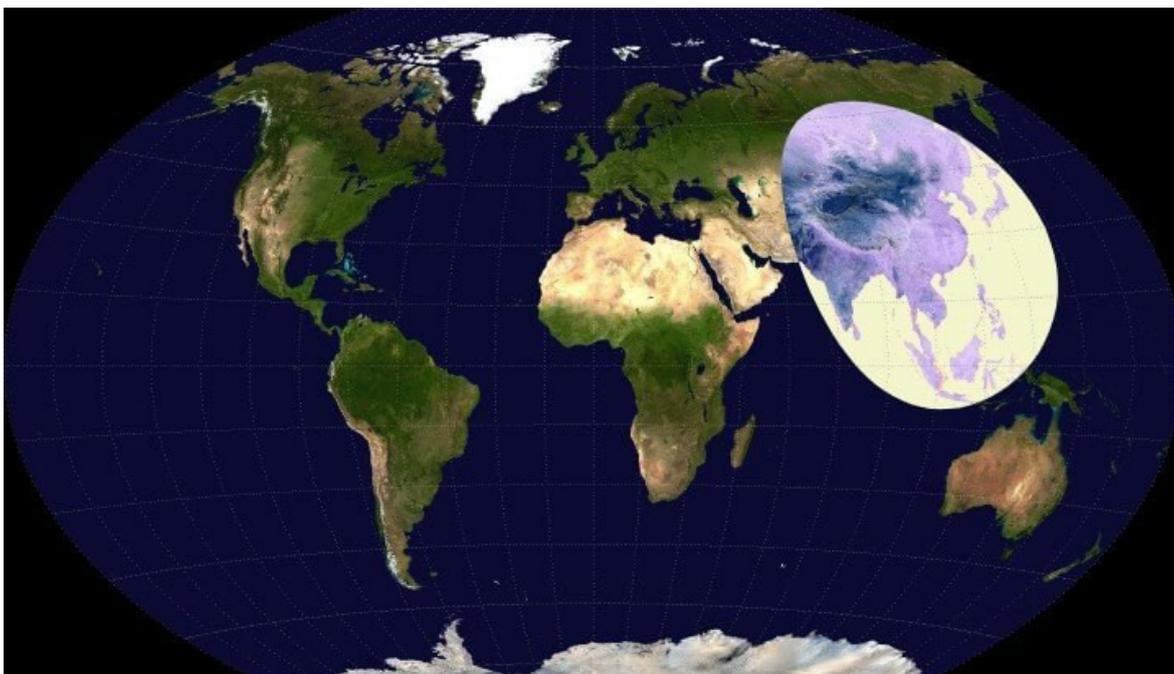
Magdalena Seol – Business and Investment Can Drive a More Sustainable Asia

International expert in sustainable development and public sector innovation identifies critical role for private sector

Building a sustainable economy is a critical concern not just for policymakers but also for businesses. Our generation lives in a historic time: the next decade will be an inflection point for the next hundred years. If we are to build a sustainable and inclusive society, it is necessary to invite and unleash the private sector resources, creativity, and drive into our grand mission. Ninety percent of the jobs created during the 15 years of the Millennium Development Goals were created by the private sector, signaling an essential role that businesses will need to play in achieving the Sustainable Development Goals (SDGs) and lifting the remaining 700 million people around the world out of extreme poverty. Accelerating sustainable economic growth requires adequate private sector finance – especially in critical

public infrastructure – to preserve scarce public dollars and reach the scale as needed. Building human capital needs not only finance but innovation and management efficiency that can be drawn from the private sector. Fostering resilience to global and regional shocks also requires a robust participation of the private sector.

Now, let's look into Asia. Below is a map created by Brilliant Maps. You will see a circled area in it. The circle is centered on 106.6° East, 26.6° North. More people live inside this circle than outside of it, with many of the world's most populous countries located in the circle – China (first), India (second), Indonesia (fourth), Pakistan (sixth), and Bangladesh (seventh). According to the UN DESA, two-thirds of the



Circle centered on 106.6° East, 26.6° North, projected using GMT, created by BCMM - Brilliant Maps

projected population growth is happening in the high-food deficit regions of South Asia and Sub-Saharan Africa, presenting the challenges of not only “overpopulation” but also “disparity.” The economic transformation the Asian region showed in recent decades is indeed an unprecedented one. However, persistent inequality and environmental degradation can be a threat to the “Asian Century.” Feeding and conserving Asia has now become an urgent problem.

In the meantime, business cases for achieving the SDGs are expanding worldwide, and Asia may be particularly well placed to reap the collective benefits of such cases for a few reasons. Firstly, there are already sizable businesses that have value chains that involve millions of enterprises in the region. Secondly, many governments in Asia are able to shape market activity and set nation-wide goals. Thirdly, culturally, Asian societies tend to value environmental protection, social justice or education, which strongly resonate with the Global Goals. A quantitative analysis

conducted by the Business and Sustainable Development Commission and others estimates that companies pursuing strategies aligned with the SDGs in the region with sustainable business models are likely to create economic opportunities worth US\$5 trillion in a few key market areas – food & agriculture, energy, cities, and health – and generate 230 million new jobs in Asia by 2030. The total estimated value, US\$5 trillion, is even introduced as a conservative number. Additional value can be generated from other sectors such as ICT, education, and consumer goods, which are estimated to add US\$12 trillion. Pricing in environmental costs can further increase this size. And if progress is made in gender equality in the region, where women traditionally have not engaged in the economy, the analysis expects it to add another 30 percent growth in the economy of those Asian countries. The good news is that across the region, businesses are already pioneering innovative business models and applying new technologies to unlock sustainable opportunities that are in line with the SDGs.



The private sector – businesses and investments – will have critical roles in our march toward achieving social and environmental sustainability. First and foremost, businesses can address the manner in which they conduct their business activities – compliance, risk management and “do no harm” – across their value chains. Developing new, innovative and inclusive products, services, technologies, and ways of doing business in the market that can contribute to improving people’s lives and environmental performance is also a unique part that businesses can contribute. Scaling the new business models and shifting the pioneers to common practice will require various layers of collaboration within and outside the corporate sector such as project-level financing and implementation partners, industry-level alliances, and multi-stakeholder platforms and networks. To crowd in private capital and investment, we will need to continue developing new and creative financial products. For instance, this could include bonds recently issued by the World Bank that directly link returns to the businesses’ performance in advancing the development priorities set out

in the SDGs; drawing in non-traditional sources of finance such as sovereign wealth funds and pension funds with trillions of dollars in liquidity; or “greening” the financial sector with more cases of green bonds at municipal, national, and regional levels.

All of these measures may not be enough to fully tackle the multiplying pressures and mutually reinforcing challenges imposed on the region’s sustainability. This will be an ongoing evolutionary process of finding, testing, and establishing innovative models and solutions. While the problems are daunting, I am optimistic that we will be able to unlock the socioeconomic potential of the private sector in collaboration with governments, multilateral institutions, nonprofits, and ultimately, with citizens.

Magdalena Seol is an international expert in sustainable development and public sector innovation. She founded Global Development Advisors, a strategy advisory consultancy that solely focuses on global development and public impact problems.

Trinnawat Suwanprik – We must know the past, understand the present, and plan for the future

Chiang Mai municipality officer calls for Asia to come together as one to create a better shared future for all

In the 21st century, global balance of power will shift from West to East – to Asia. Processes affecting economic and social development will be bigger, faster, and more complicated. Nonetheless, for Asia to aspire to its full potential, we must, more than ever, know the past, understand the present, and plan for the future – a future that we want. Asia has to come together as one, with strategies

and commitments to consolidate different development visions and stay on top of trends.

Asia will most likely face profound changes in all its dimensions, whether it be political concerns, socio-economic challenges and opportunities, environmental protection or energy security, as well as culture and conflicts. The lives of the people in Asia will be impacted by these topics

in one way or another. Changes in Asia will undoubtedly influence the global scene. The world's economic powers and businesses, for example, have been reconfiguring themselves to try to enter Asia, perhaps drawn by the region's growth – something that is reflected in the increasingly larger share of the world's GDP.

At the regional level, changes in Asia will particularly impact the shaping of infrastructure projects in newly developed economies such as Cambodia, Lao PDR and Myanmar. Investors will participate directly in their economic development, beginning with those with low barriers to entry, which will make the Asia region better networked. On the ground, the changes and new economic developments will translate into urbanization; with huge and seemingly inexorable flows of people all around the region.

A Clean and Green Asia

As Asia develops, its energy consumption also rises. Fortunately, clean energy is becoming increasingly viable – and this trend has become too significant for the oil and gas industry to ignore. As the trend goes up, consumption of

fossil fuel goes down. By 2035, it is expected that fossil fuel will no longer be the dominant source of energy. Hence, in the future for Asia that we envision, more households will have solar power panels and the cities will be greener. However, the progress in the greening of the city will depend particularly on 1) climate change; 2) depletion of natural resources; and 3) environment protection.

Moreover, in the bigger scheme of things, it should be noted that:

1. China will rise to become the most powerful country in the world. Faced with this implication, other countries in Asia are left with two options: Accept partnership with China or make conflict with China to contain its power.
2. The United States will still play a big role in Asia and the Pacific region. The underlying aim of their engagement and partnership with Asia and Pacific is probably to contain the influence of China. However, rapid expansion of many countries in the Asia and Pacific region will render the containment strategy less effective.



3. India will become the third most powerful country, largely due to the size of its economy and its population. Although India is equipped with talent and technology, there is a power disparity compared to China. Thus it is no surprise that India has been building partnerships with the United States, Japan and other powers in the Asia-Pacific to counterbalance China as it rises to power.

Numerous actors in Asia will try to steer themselves through the complex currents

of change to achieve the glory of economic development. The price of success, however, inevitably leads to more consumption of energy, faster depletion of natural resources, and greater chance of unintended or negative impact in the region. These are the challenges that Asia has to face. But the real challenge is: How can each country in Asia address and adapt to these challenges in a way that benefits all?

Trinnawat Suwanprik is a government officer serving as sanitary researcher at Chiang Mai municipality, Chiang Mai, Thailand.

Qingchan Yu – “A credible alternative to fossil fuels is critical”

To strengthen the cooperation on renewable energy development in Asia, take the Great Mekong Sub-region as an example, suggests energy and climate expert

The Great Mekong Sub-region (GMS) – Thailand, Cambodia, Laos, Myanmar, and Viet Nam, has a big population of 235 million in total – two thirds of the US population. So far the region has an average energy consumption per capita of 1,268 kWh/person/year, which is half of the world’s average level. Rural electrification rates are still quite low, at 24 percent and 20 percent in Cambodia and Myanmar respectively. However, rapid economic growth in the GMS has meant rapid growth in the demand for energy.

As one of the fastest growing regions in the world, the electricity consumption and electricity peak demand have experienced very high growth rates – a trend that the governments of the GMS countries expect to be sustained for at least the next five to ten years. A credible alternative to fossil fuels is critical. The GMS countries are still at an early stage in developing their renewable energy (RE) resources.

To make the GMS countries less dependent on imported fossil energy, notably oil and gas, and to reduce the greenhouse gas (GHG) emissions, the Thai government plans to increase the use of alternative energy sources (solar, wind, biomass, and mini-hydropower) from 12 percent currently to 25 percent by 2021.

The government of Cambodia sets a long-term target of producing biodiesel and bio-ethanol to displace 10 percent of diesel consumption and 20 percent of gas consumption by 2030. By 2025, the share of RE sources in total energy consumption is projected to increase to 30 percent by the government of Lao PDR, with mini-hydro projects and biofuels expected to be the main sources of RE.

Myanmar’s government plans to use domestically produced biodiesel and bio-ethanol as substitutes for 10 percent of imported oil and gasoline by 2020. Renewable energy sources

are still at a preliminary stage of development in Viet Nam. The government plans to increase the share of renewable power generation, from 3.5 percent in 2010 to 4.5 percent by 2020, and possibly to 6 percent by 2030.

For the purpose of bridging the developmental gap and accelerating the role of RE in GMS countries, a mechanism should be set up for the technical transfer, cooperation, and the best practices for sharing to promote RE deployment in the region. Capacity building should be at the center of cooperation in the region.

Given the fact that financing is the most crucial challenge, financial cooperation is a policy

priority to help poor member countries to embark upon RE development. Therefore, field research, pilot projects, and policy improvement should be conducted with intimate collaboration between international partners and multi-level stakeholders in Asian countries and the world.

Qingchan Yu is the program manager of the Energy and Climate program at GEI. Since joining in 2009, she has led the team's work on sustainable development, US-China bilateral climate cooperation, and international climate agreements across the state and private sectors.



APPENDIX

Session Facilitators

Positions and bios correct at time of session – November 2018



Charles E. Morrison, USA

Charles E. Morrison is president of the East-West Center in Honolulu, Hawaii. His first job was as a legislative assistant for a US Senator, focusing on foreign policy, trade, and government ethics. Moving to Hawaii in 1980s, he worked for the East-West Center as a research scholar and concurrently with the Japan Center for International Exchange on a variety of projects, including two US-Japan binational commissions and several reports of the Trilateral Commission. In the early 1990s, he became the director of the East-West Center's Economic and Politics Program, and in 1998, he was selected as the Center's president, a position he is stepping down from at the end of this year. Charles has written on Southeast Asian international relations, US foreign and trade policies toward Asia, and Asia-Pacific regional organizations. For several years, he convened a Freeman Foundation-funded Salzburg Global Seminar program on Asia-Pacific issues.



Surin Pitsuwan, Thailand

Surin Pitsuwan served as the ASEAN secretary-general between 2008 and 2012. In previous positions, he taught at the faculty of political science at Thammasat University and as a columnist for the Nation and the Bangkok Post. In 1984, Surin ran for a Parliamentary seat from Nakorn Sri Thammarat, his home town. He has been returned to Parliament eight times since 1986. As a member of Parliament, he was appointed secretary to the speaker of the House of Representatives (Chuan Leekpai), assistant secretary to the minister of the interior, deputy minister of foreign affairs from 1992 to 1995 and minister of foreign affairs from 1997 to 2001. Upon leaving the foreign affairs portfolio in mid-2001, Surin was appointed a member of the Commission on Human Security of the United Nations until 2003. Surin was also a deputy leader of the Democrat Party, Thailand. Additionally, he served on the National Reconciliation Commission (NRC), charged with bringing peace and security back to Thailand's South. Surin holds a B.A. in political science from Thammasat University and Claremont McKenna College, CA, as well as an M.A. and a Ph.D. in the field of political science and Middle Eastern studies from Harvard University. He is a Fellow of Salzburg Global Session 518 *People, Peace and Planet in 2030: Shaping Inclusive and Sustainable Growth* in 2013 and Session 543 *1814, 1914, 2014: Lessons from the Past, Visions for the Future* in 2014.



Niall O'Connor, Thailand

Niall O'Connor became director of SEI's Asia Centre in March 2016. Niall has a wealth of experience, having worked in NGOs, governments and in academia. Over the last 15 years, he has led senior leadership and management positions in Western, Eastern and Southern Africa. This included six years as Country Director in Gambia and Senegal for Concern Universal (a UK based international NGO), before joining WWF in 2008. At WWF, he served first as the Regional Representative of WWF Madagascar & West Indian Ocean until 2010, before moving into the regional position of Dir. PO Performance and Development Africa. In August 2011, Niall started as the Regional Director for WWF Eastern and Southern Africa, demonstrating his strong leadership and management skills for this challenging position in WWF's biggest Programme Office. In the world of academia, way back in 1998, Niall oversaw the establishment and development of the Agroforestry Research Unit for the Government of The Gambia, developing research programmes for agroforestry systems in sub-Saharan Africa's agro-ecological zones. Niall enjoys the outdoor life, time with his wife and three children, and is passionate about what he does. Niall holds a M.Sc. in biodiversity conservation from Imperial College London (specialised in developing community managed nature park conservation plans), a M.Sc. in forestry from University College Dublin (with ICRAF, specialising in agro-forestry), and a BSc in forestry, also from University College Dublin.

Mushtaq Memon, Thailand

Mushtaq Memon is working with UN Environment (UNEP) as a regional coordinator for resource efficiency in Asia Pacific Office located in Bangkok. He is supporting resource efficiency, sustainable consumption and production, green economy, green financing, sustainable public procurement, sustainable tourism, sustainable industries and various areas for Asia and the Pacific. He is also implementing EU funded SWITCH-Asia Phase 2 component by UN Environment to support Sustainable Development Goals (SDGs), especially SDG 12 on sustainable consumption and production in the region. Mushtaq was working at UN Environment's office in Osaka, Japan (International Environmental Technology Centre (IETC) for 12 years till end of 2016 where he implemented a global programme on solid waste, wastewater and air pollution management in Asia, Africa and Latin America and Caribbean. He holds Ph.D. from Hiroshima University in environment and resource economics, a Master's degree from University of Bradford in national development and project planning, a Postgraduate Diploma in transport and Bachelor's degree in civil engineering.



Fellows

Positions and bios correct at time of session – November 2018

Marifrance Avila, Philippines

Marifrance R. Avila is currently the focal person for both Climate Change and Water and the Pollution Section of the Pollution Control and Regulation Division of the City in Makati. She is primarily in charge of the formulation of the Local Climate Change Action Plan, organizing and attending necessary workshops related to climate change. She handles water and land pollution abatement, such as seepage inspection, rehabilitation of waterways/esteros, toxic and hazardous management and other programs related to water and land pollution. Marifrance has been involved in numerous trainings/workshops both as a participant and as a resource speaker. Previously, she worked for an environmental NGO as a training facilitator and as a community organizer. She handled rural communities, both coastal and upland, teaching Community-Based Environmental Risk Management, which focuses on pre-disaster mitigation and capacitates barangay volunteers with knowledge, skills and early warning system to help them in preparation of a potential disaster. She was connected with the national government agency through the Regional Office of the DENR – Environmental Management Bureau and handles Solid Waste Management. Her professional, academic and voluntary services focus on education, government service, gender equality, social justice and environmental protection. She obtained units of her Masters in community development from the University of the Philippines – Diliman Campus, and her Bachelor of Science in environmental management from the Ateneo de Naga University.



Wilson John Barbon, Philippines

Wilson Barbon is currently the country program coordinator for Myanmar tasked to take leadership in setting up and establishing the International Institute for Rural reconstruction (IIRR) presence in Myanmar. He leads a small team of local Myanmar staff who are implementing IIRR's field programs in the country including school gardens for nutrition and climate-smart villages to scale out community-based adaptation. As a concurrent position, he is also the Program Manager for Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) at the institute's Regional Center for Asia. He provides technical guidance and assistance to IIRR's country programs in the Philippines and Cambodia in the area of DRR and CCA. For the past 3 years, he has been managing a regional 6-country program on NGO disaster preparedness in Asia in partnership with Give2Asia. Prior to IIRR, he worked for various Philippine NGOs in Mindanao and the Visayas. He has a Bachelor of Science in Biology from the Ateneo de Davao University (Philippines) and a Masters in environment and natural resources management from the University of the Philippines-Open University with focus in upland ecosystems.





Xixi Chen, USA

Xixi Chen is a manager at the Environmental Defense Fund based in New York with focuses on clean energy, green supply chain, and corporate partnerships. She has been working on the EDF Climate Corps team, Global Strategy, China team, and the Supply Chain team aiming to strategically plan on program expansion and building multi-stakeholder partnerships in China and beyond. Prior to joining EDF, Xixi worked as an energy analyst at the Association for Energy Affordability to make affordable housing in New York more energy efficient. She also interned with the Division for Sustainability Development at the UN and the Green Map System in New York. Xixi is originally from Beijing, China, and she also speaks Mandarin. Xixi holds a Bachelor's degree in environmental science from Peking University and a Master's degree in city planning from Massachusetts Institute of Technology.



Hyeonjung Choi, Republic of Korea

Hyeonjung Choi is a research fellow of the Center for Global Governance at the Asan Institute for Policy Studies, and directs the Climate Change and Sustainable Development Program. Previously, Hyeonjung was the deputy secretary to the ROK President for green growth and assistant secretary for national agenda at the Blue House (the ROK Presidential Office). Hyeonjung also worked as a policy research fellow in the 17th Presidential Transition Committee. Prior to the public service positions, he was a research scholar at the Institute of Social Science at the University of Tokyo, Japan, and full-time instructor at the Korean Air Force Academy. Hyeonjung's areas of research interest include climate change, green growth and sustainable development, new growth engines, East Asian developmental state model, industrial policy, national future strategy, and development assistance. Hyeonjung received his B.A. and M.A. from Yonsei University and his Ph.D. in political science from Purdue University. He has been the recipient of the Order of National Service Merit and two Presidential Distinguished Service Awards.



Sandeep Choudhury, India

Sandeep is a co-founder at VNV Advisory Services, responsible for the initiation and development of the climate change expertise. His strong belief in community outreach and sustainable initiatives, spearheaded VNV's ownership on low carbon social development projects such as rural energy access, clean cooking, agro-forestry, social forestry, water access and sustainable agriculture. His work encompasses over 2 million rural households across the South Asia region and over 40 NGOs and implementation partners. He has been in carbon markets since the inception and has dealt with over 80 emission reduction projects across carbon mechanisms and standards. He plays an advisory role to over 100 companies and countless non - profits for climate finance related affairs. Sandeep has over 15 years of industry experience in various fields, with 6 years dedicated to the consulting business. His innovation in the field of Climate finance and its relation to corporate sustainability has been widely recognized and enabled him to work in areas of financing and ensuring additional funding for the deployment and maintenance of sustainable and clean projects. He is a certified auditor for various sustainability standards such as the forest stewardship council and he is also a certified CII sustainability assessor. He is part of various global forums and committees on sustainability and low carbon growth. Sandeep has a Bachelor's degree in electronics from the Bangalore University.



Chochoe Devaporihartakula, Thailand

Chochoe Devaporihartakula is the programme manager for the Institute for Global Environmental Strategies (IGES) and the Training Event Specialist for the Regional Resource Center for Asia and the Pacific at the Asian Institute of Technology (AIT). Prior to this, she worked as a Programme Associate for the USAID Climate Change Adaptation Project Preparation Facility for Asia and the Pacific (USAID Adapt Asia-Pacific) and as a consultant for the United Nations Development Programme, where she was responsible for supporting and coordinating numerous capacity building programmes and training activities targeting Asia-Pacific government officials. Her passion lies in work involving communications and awareness building, knowledge management and outreach, capacity building, environmental safeguards, climate change,

urban planning, energy sectors and alternative energy solutions in Thailand and the greater Mekong Region. She has completed all coursework towards a Master's in International Relations at Chulalongkorn University with a special focus on climate change and renewable energy, and is currently doing a Master of Science in energy technology and management.

Hideaki Hamada, USA

Hideaki Hamada is a senior financial sector specialist in the Disaster Risk Financing and Insurance Program of the World Bank Group (WBG) in Washington D.C. He is in charge of technical assistance and lending operations in Southeast Asian countries such as Cambodia, Lao PDR, Myanmar, the Philippines, and Vietnam, to enhance financial adaptation toward increasing climate and disaster risks. He facilitates the discussion among officials of Ministry of Finance for ASEAN+3 countries to raise political momentum to establish a regional disaster risk insurance pool, leading to the endorsement of the ASEAN+3 Finance Ministers at their joint statement in May, 2017. Prior to joining the Bank, he was Deputy Director of Multilateral Development Banks Division of the Ministry of Finance in Japan, where he led the international discussion to prioritize mitigation and adaptation of climate change in WBG's operation. He obtained a Master's degree in public administration at Columbia University in New York.



Salinee Hurley, Thailand

Salinee Tavaranan Hurley is an engineer and a social entrepreneur. Since 2005 she has been the director of the Border Green Energy Team (BGET). BGET provides renewable energy technology to underprivileged communities along the Thailand-Burma border. In 2013, she founded SunSawang, a social enterprise that offers solar-powered products and services for rural villages in Thailand. In addition, Salinee is a member and commitment maker of Clinton Global Initiative from 2011-2015, an Asia Foundation Development Fellow, and a BBC's 100 Women 2014. Salinee is an avid runner and also enjoys experimenting in the kitchen, making homemade soap, and playing soccer with friends. She graduated with a Master's degree in solar energy engineering from University of Massachusetts Lowell in 2005.



Keshav Jha, India

Keshav Jha handles multiple projects on climate change mitigation and adaptation, exclusively focusing on emerging countries of the South and South East Asian territory at the Energy & Climate Division of ICLEI, South Asia Secretariat. He focuses on the creation of a networking system that will promote knowledge and technical expertise transfer to improve emission mitigation measures in cities. Previously, he has worked with World Wildlife Fund -India, Tehri Hydro Development Corporation Ltd., Toxic's Link, Delhi Greens, and One Earth One Mission. Keshav graduated with a degree in geography from Kirori Mal College and earned an M.A. in environmental studies from the University of Delhi, as well as a postgraduate diploma in environmental law & management from the Indian Law Institute. Keshav is a fellow of Salzburg Global Seminar having attended multiple Session previously.



Jione Jung, Republic of Korea

Jione Jung is a research fellow for the Korea Institute for International Economic Policy (KIEP). She joined the organization in 2006. Jione conducts policy analysis and suggests various options for Korea's international development cooperation, particularly on the issue of climate change. Currently, she is working on how to mobilize and increase financial resources in order to support developing nations' actions in response to climate change. She has been participating in the UN climate change negotiations as an adviser and a member of the Korean government delegation. Jione received a Ph.D. from the University of Florida in Gainesville, Florida and a B.A. from Korea University in Seoul, Korea





Suthikorn Kingkaew, Thailand

Suthikorn (Korn) Kingkaew currently works as director of research at Future Innovative Thailand Institute (FIT), a policy think tank under Democrat Party Thailand. He now also works as a Lecturer in International Business and Director of Consulting Center at Thammasat University. Making a positive impact to society has been one of his lifelong goals. Suthikorn has conducted various consulting, advisory, and research projects for both public and private sectors in Thailand. Beyond academic and business research, he also has experience in policy research and policy making, working as member of staff to Deputy Interior Minister and Finance Minister. Suthikorn has an undergraduate degree in biotechnology from the University of New South Wales and received an MPhil in technology policy and subsequently a PhD in management studies from Cambridge University.



Abner Lawangen, Philippines

Abner Lawanger has been a disaster risk reduction, environmental, and natural resources officer for five years in Tublay, an indigenous municipality in Northern Philippines. He is an experienced officer in disaster management, climate change, environment and local governance, environmental planning and conservation, impact assessment, climate adaptation, etc. He is currently working on community based climate disaster mitigation and environmental programs among indigenous societies. He is a team leader for various environmental, climate change and disaster management programs including the AEION foundation funded watershed management project, “Saving Tublay Watershed for Water” funded by the European Union, and “Mainstreaming Climate Change Adaptation and Disaster Risk Reduction in Local Development” by the United Nations World Food Programme (UN-WFP). Abner actively participated in various fellowships to further his degree in Environmental Science, including the 2016 Environmental Sustainability Professional Fellowship Program (USA), “Urban Resiliency” (Malaysia in 2016), and SDGs by the Asian Development Bank (Manila, 2017).



Sri Lestari, Indonesia

Sri (Tari) Lestari is a Project Manager/Consultant at South Pole Group (SPG), a global provider of climate change and sustainability solutions. In the past few years, she has been involved in a variety of projects related to sustainability and natural resources management. As part of SPG, she currently serves as a contact point for a forestry project funded by USAID in Indonesia where she manages a team of experts to run the Payment for Ecosystem Services (PES) component the project. In addition, she is also involved in regional research on renewable energy investments in Southeast Asia and is also taking part in an advisory project assisting a private company in the Middle East and North Africa to access funding from the Green Climate Fund (GCF) to leverage and de-risk the company’s renewable energy investment pipeline. Previously at the Maxwell School of Syracuse University, she worked in policy research in the field of collaboration among government agencies using the case in the forestry sector in the US and India. Tari holds a Masters of Public Administration from the Maxwell School of Syracuse University and a Bachelor of Industrial Engineering from Bandung Institute of Technology (ITB) in Indonesia.



Roli Mahajan, India

Roli Mahajan is a storyteller who believes that stories have the power to heal, build and bring forth change. She began her career as an editor and since then, has worked as an assistant producer, blogger, journalist, social media consultant, and analyst for organizations like WSPA, DFID, Love Matters and the World Bank. Currently, she is freelancing as a journalist and communications consultant. As a young woman fellow, she has produced video blogs as a for the MacArthur Foundation project. Roli is passionate about sustainable development and the environment. As a youth advocate, she has participated in UNFCCC Conferences (Mexico, Durban), Rio+20, many others. Roli has spoken as a panelist at the Aspen Institute’s Environment Forum. She has presented at UNESCAP meetings and was a part of the advocacy group which pushed for Sustainable Consumption and Production during Rio+20. Academically, she has two master’s degrees’ in Journalism and Mass Communication as well as International Relations.

Piao Meihua, *China*

Piao Meihua is director general of an environmental NGO, East Asia Environmental Information Center in Japan. She mainly carries out environmental cooperation between environmental NGOs in China, Japan and South Korea, especially in areas like water pollution, green supply chain and climate change. She can speak Chinese, Japanese and Korean fluently and uses her language advantage to improve communication between China, Japan and South Korea. In the past, her organisation has succeeded in deterring Japanese companies from polluting the local areas in China and improving the company's green supply chain management system. She also participated in meetings and exchanges between various governments as a translator, including the meeting of the environment ministers of China, Japan and the South Korea. Her professional and voluntary services and activities focus on water pollution, E-waste, green supply chain, climate change and NGOs' networking. She obtained her master's degree in language communication from Graduate School of International Cooperation Studies, KYORIN University, Japan.



Pham Minh Nguyet, *Vietnam*

Pham Minh Nguyet is a program officer at the Global Green Growth Institute in Vietnam. She delivers projects on urban green growth and renewable energy to support the Government of Vietnam on the implementation of green growth in urban and energy sectors. Minh is currently leading a research project on International Best Practices for SME's Green Credit and a Review on Vietnam's Urban Policy. She has been involved in an extensive green growth policy study and evaluation, and drafted recommendations to key government agencies such as Provincial People's Committee, Ministry of Construction, and Ministry of Industry and Trade. Minh obtained a Master's degree in economic development from the UN University for Peace in Costa Rica.



Quynh Nguyen, *Germany*

Quynh Nguyen is a research fellow at the German Development Institute and a research associate and external lecturer at the Swiss Federal Institute of Technology (ETH Zurich). A key puzzle of her research is concerned with the socio-economic impact of international integration and how these new realities shape citizens' support for international trade. In addition to the analysis of individuals' perception, Quynh is also interested in examining state actors' preferences and their behavior in the international trading regime, especially in the context of trade negotiations. She has also examined how diverging interests surrounding the trade-environment linkage are addressed at the international level, and to what extent trade can facilitate greater cooperation in addressing environmental degradation and climate change issues. Quynh received her PhD in International Relations and International Political Economy from ETH Zurich. During her doctoral studies, she was a visiting fellow at Georgetown University in Washington; DC. She has a joint Master's degree in comparative and international Studies from the ETH Zurich and the University of Zurich.



Aye Sandar Phy, *Myanmar*

Aye Sandar Phy is a research associate at Asian Institute of Technology, Thailand. She is currently working on an Australian Center for International Agricultural Research funded research project, "Strengthening Institutional Capacity, Extension Services and Rural Livelihoods in the Central Dry Zone and Ayeyarwaddy Delta Regions of Myanmar". The focus of Sandar's research is on the application of socioeconomic research in policy formulations and implementations related long-term rural and agricultural development. She has a Master's of Science in regional and rural development planning from the Asian Institute of Technology.





Magdalena (Ji In) Seol, *Republic of Korea*

Magdalena (Ji In) Seol is an international expert in sustainable development and public sector innovation. She is a founder of a strategy advisory consultancy based in Seoul, GDA (Global Development Advisors), that solely focuses on global development and public impact problems. Prior to this she served as an assistant secretary to the president for climate and Environment in South Korea, managing the key globalization agendas related to climate change and green growth. She has also supported executive decision-making in the business and social sectors as a management strategy consultant. She has extensive experience in multilateral institutions, having worked with various IFIs and IOs. She has been involved in the Government Innovation Program at Harvard's Ash Center for Democratic Governance and Innovation and the Geopolitics of Renewable Energy Project at the Belfer Center for Science and International Affairs. She has an MPA in business and government policy from Harvard Kennedy School with her first graduate work in international development studies at the University of Oxford as the Oxford Clarendon Scholar and the British Shevening Scholar after her B.A. in international relations at Seoul National University.



Aiko Shimizu, *Japan*

Aiko Shimizu is responsible for leading analysis on Japan and the Republic of Korea's clean energy and transport sectors at Bloomberg New Energy Finance. Previously, Aiko worked on policy and legal issues related to international security and energy at the United Nations Headquarters in New York and the International Tribunal for the Law of the Sea in Hamburg, Germany. She has also held fellowships at the Center for Strategic and International Studies (CSIS) - Pacific Forum CSIS and the East-West Center in Washington. Aiko received her graduate degrees from the University of Pennsylvania Law School and Columbia University's School of International and Public Affairs (SIPA). She received her Bachelor's degree in political science and international studies from the University of Chicago.



Trinnawat Suwanprik, *Thailand*

Trinnawat Suwanprik is a government officer serving as sanitary researcher at Chiang Mai municipality, Chiang Mai Thailand. Currently, he is also local coordinator for Energy Efficiency Initiatives in Chiang Mai funded by USAID LEAD Program. He has carried out projects such as Climate Campaign Protection Project with Thailand Environmental Institute and ICLEI. Trinnawat held a project base called the Sustainable Urban Tourism through low carbon initiatives; experience from Hue and Chiang Mai leading by Asian Institute of Technology that funded by SUMERNET and CDKN. He was a project manager of Sustainable Urban Transport in Chiang Mai that was supported by World Bank and Global Environmental Facility (GEF). He was special instructor at Chiang Mai Rajaphat University. He attended a short training course at a Professional Fellows Program sponsored by the United States Department of State Bureau of Educational and Culture Affairs and managed by ICMA in the United States. He received his Bachelor of Public Health from Chiang Mai University and Masters of Environmental Engineering from Naresuan University (Phayao campus), Thailand.



Shafie Taib, *Malaysia*

Shafie Taib is a green engineer at Alor Gajah Municipal Council, State of Melaka, Malaysia. He joined the local council in September 2012. Shafie is interested in green technology, sustainable development and green city action plan towards 45% carbon emission reduction by 2030. With Green City Action Plan (GCAP) this will reflect Melaka's long-term commitment to pursue low carbon growth, improve environmental quality and strengthen economic competitiveness. He has previously worked with one of the world-leading solar cell manufacturer based in Germany. His biggest task was on September 2017 whereby he was the leader for the secretariat of Urban Environmental Accords (UEA) Melaka Summit 2017 working committee team. Shafie received a Bachelor's degree in electrical engineering from University Technology of Malaysia.

Ariel Xu Hui, China

Xu Hui is the secretary general of China Social Investment Forum (China SIF), a non-profit membership association that aims to provide a platform for investors and other stakeholders to explore Socially Responsible Investment (SRI) opportunities in China, and promote the development of China's SRI market. She has also been the impact fellow in China of LGT Impact, a global impact investor focusing on private equity investments in developing and emerging countries, to support the impact integration of its portfolio organizations. Before joining China Social Investment Forum, Xu Hui was the CSR manager to lead the Social Finance sector of CreditEase, the leading fintech and wealth management company, as well as program director of China Initiative of Social Finance, an international think-tank jointly started by Beijing Normal University and CreditEase. Prior to that, she worked as the senior officer of China Association of Microfinance and focused on promoting Social Performance Management in China, providing technical support and training to member organizations. She has an MBA from the School of Management, Graduate University of Chinese Academy of Sciences, and an MBA from Freeman School of Business, Tulane University.



Qingchan Yu, China

Qingchan Yu is the program manager of the Energy and Climate program at the Global Environmental Institute. Since joining in 2009, she has led the team's work on sustainable development, U.S.-China bilateral climate cooperation, and international climate agreements across the state and private sectors. Under her leadership, the team developed the Low Carbon Development Planning Toolkit, in partnership with the Center for Climate Strategies. In addition, she has provided consultation for governments, multilateral institutions, and international non-profits, as well as conducted peer-reviewed studies on low carbon transition and renewable energy development, including the blue moon fund, OECD, and Rockefeller Brothers Fund. Qingchan has represented GEI at multiple U.N. Climate Change Conferences, most recently at COP21 as part of the Chinese NGO delegation. She previously worked on by-product de-sulphurization policy and sewage management assessment at China's Ministry of Environmental Protection Environmental Development Center, where she also helped organize the U.S.-China exchange on environmental impact assessment development. Qingchan received a B.A. in international economics and B.S. in trade and environmental science from Nankai University. She holds an M.S. in natural resources and environmental economics from Renmin University.



Alex Zhang, China

Hai (Alex) Zhang is the executive director of Eco Forum Global (EFG), a non-for-profit NGO headquartered in Beijing, and serves in the Global Executive Committee of ICLEI--Local Governments for Sustainability. EFG is the executive body of Eco Forum Global Annual Conference, held in Guiyang, which is only state-level forum (as approved by CPC) for promoting sustainable development and its localized version--Eco-civilization in China. His main activities in EFG are concentrated on the promotions of sustainable development, natural heritage preservation and inclusive society in developing countries, and related international collaboration. He also focuses on China Strategy for the Executive Committee of ICLEI, and has been involved in a number of ICLEI programmes in collaboration with various local governments. He graduated from Columbia College, New York, NYC, and Harvard Business School, Cambridge, MA.



Observer



Aya Hino, *Japan*

Aya Hino is a program officer for the Japan Foundation, where she conceptualises, develops, and manages several grant programs, fellowship programs, and project partnerships for intellectual exchanges. Before joining the foundation in 2015, she was an associate lecturer at Goldsmiths College, University of London, and taught extensively on political philosophy, international relations theories, and modern Japanese politics and history. Aya received M.Phil. in politics from University of London, M.A. in international studies from University of Birmingham, and B.A. in political science from Keio University.

Session Staff

Tatsiana Lintouskaya, *Program Director*

Tatsiana Lintouskaya is a Program Director at Salzburg Global Seminar, where she is responsible for the conception, development, and implementation of international seminars covering issues of international governance, geopolitics, and international economics. Prior to joining Salzburg Global Seminar, Tatsiana worked in the Belarusian Ministries of Foreign and Foreign Economic Relations, the International Labour Organization, the International Finance Corporation, and as an independent consultant in Washington, DC. She is also an alumna of the training program for young diplomats at the German foreign ministry. She holds degrees in economics from the Belarusian State Economic University and an M.A. in international relations from the School of Advanced International Studies at the Johns Hopkins University, Washington, DC, USA.



Jennifer Dunn, *Program and Development Assistant*

Jennifer Dunn is the Program and Development Assistant at Salzburg Global Seminar. Her primary role is to support the Vice President and Chief Program Officer and Vice President of Development and Operations in their daily business, including scheduling, meeting management, liaison with Salzburg Global staff and stakeholders, and conducting research for ongoing projects. She also supports program directors with the organization of a selection of programs. Prior to joining Salzburg Global in 2017, Jennifer worked as a project manager for the European Crohn's and Colitis Organisation, where she worked primarily on the development of an international patient database. Before this, she was an English language teacher in multiple schools in Graz, and also with Berlitz English in Vienna. Jennifer holds an M.A. (Hons) in geography from the University of St Andrews, UK, and a Master's in European studies from the University of Vienna, Austria.



Additional Session Staff

Clare Shine, *Vice President & Chief Program Officer*

Michelle Dai Zotti, *Development Manager*

Louise Hallman, *Editor*

Jan Heinecke, *Fellowship Manager*

Andrew Ho, *Development Director*

Oscar Tollast, *Communications Associate*

Tomas De La Rosa, *Communications Intern*

Yeomin Kim, *Program Intern*

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Lindsay Barrett, *Development – Washington, DC*

Tomas De La Rosa, *Communications*

Yeomin Kim, *Program*

Anna Speth, *Library*

Abby Van Buren, *Development – Salzburg*

Mirva Villa, *Communications*

Joy Willis, *Program*

Report Authors:

Roli Mahajan is a storyteller who believes that stories have the power to heal, build and bring forth change. She began her career as an editor and since then, has worked as an assistant producer, blogger, journalist, social media consultant, and analyst for organizations like WSPA, DFID, Love Matters and the World Bank. Currently, she is freelancing as a journalist and communications consultant. As a young woman fellow, she has produced video blogs as a for the MacArthur Foundation project. Roli is passionate about sustainable development and the environment. As a youth advocate, she has participated in UNFCCC Conferences (Mexico, Durban), Rio+20, many others. Roli has spoken as a panelist at the Aspen Institute's Environment Forum. She has presented at UNESCAP meetings and was a part of the advocacy group which pushed for Sustainable Consumption and Production during Rio+20. Academically, she has two Master's degrees in journalism and mass communication as well as international relations.

Tatsiana Lintouskaya is a Program Director at Salzburg Global Seminar, where she is responsible for the conception, development, and implementation of international seminars covering issues of international governance, geopolitics, and international economics. Prior to joining Salzburg Global Seminar, Tatsiana worked in the Belarusian Ministries of Foreign and Foreign Economic Relations, the International Labour Organization, the International Finance Corporation, and as an independent consultant in Washington, DC. She is also an alumna of the training program for young diplomats at the German foreign ministry. She holds degrees in economics from the Belarusian State Economic University and an M.A. in international relations from the School of Advanced International Studies at the Johns Hopkins University, Washington, DC.

For more information contact:

Clare Shine

Vice President &

Chief Program Officer

cshine@SalzburgGlobal.org

Tatsiana Lintouskaya

Program Director

tlintouskaya@SalzburgGlobal.org

Louise Hallman

Editor

lhallman@SalzburgGlobal.org

For more information visit:

www.SalzburgGlobal.org/go/591

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