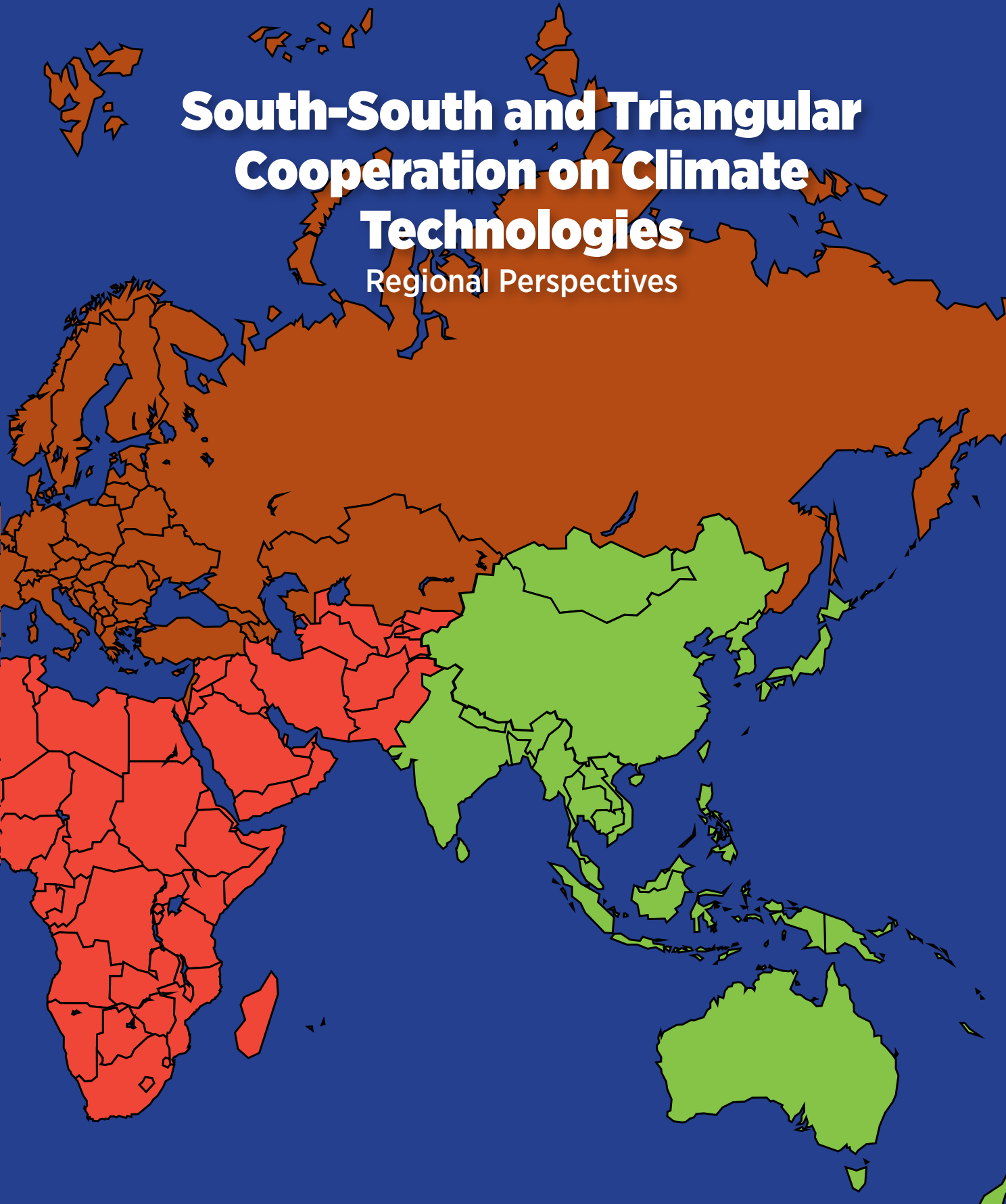


TEC



# South-South and Triangular Cooperation on Climate Technologies

## Regional Perspectives





TEC



# **South-South and Triangular Cooperation on Climate Technologies**

## Regional Perspectives



United Nations  
Office for South-South Cooperation

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The United Nations Office for South-South Cooperation (UNOSSC) is very pleased to commission this publication as a part of its efforts to share regional perspectives on South-South cooperation on climate change with a broader audience for the promotion of Southern climate cooperation.

We would like to acknowledge the climate and sustainability programme of the UNOSSC that has tirelessly worked to maintain and strengthen existing political momentum on climate change; to strengthen knowledge of South-South Cooperation (SSC) on climate change; to accelerate the UN system wide efforts to support Southern climate cooperation; and to engage multiple stakeholders of the South for global climate action. Therefore, we would like to express our gratitude to the climate and sustainability programme's team members: Xiaohua Zhang, Liangchun Deng and Ajita Singh.

As part of Climate Week 2018, the climate and sustainability programme of the UNOSSC organized two workshops on South-South and technological cooperation for climate action and sustainable development in Singapore on 13 July 2018 and in Montevideo, Uruguay on 20 August 2018. These workshops were conducted in partnership with the United Nations Framework Convention on Climate Change (UNFCCC) and the Inter-American Institute for Global Change Research (IAI) in order to bring together the national policymakers and the lead practitioners from the United Nations member states, United Nations system and other organizations who are actively engaging in promoting South-South and triangular climate cooperation.

We would like to express our gratitude to all those who participated in and helped organize the workshops. In particular, we would like to extend special thanks to the government of Singapore and Uruguay for hosting us.

We would like to give our special thanks to our co-organizers, including colleagues from UNFCCC Technology Executive Committee Ariesta Ningrum and Andrea Camponogara, and colleagues from IAI, Marcos Regis da Silva and Ione Anderson.

## Abbreviations and Acronyms

<b>ABC</b>	Brazilian Cooperation Agency
<b>APCW</b>	Asia-Pacific Climate Week
<b>ARKN-FCC</b>	ASEAN regional network on forest and climate change
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>BAPA</b>	Buenos Aires Plan of Action
<b>BCCSAP</b>	Bangladesh Climate Change Strategy and Action Plan
<b>BMU</b>	German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety
<b>CARICOM</b>	Caribbean Community
<b>CCRD</b>	Center for Climate Research and Development
<b>CCREEE</b>	Caribbean Center for Renewable Energy and Energy Efficiency
<b>CIEMAT</b>	Centro de Investigaciones Energéticas, Medioambientales Tecnológicas
<b>COMSATS</b>	Commission on Science and Technology for Sustainable Development in the South
<b>COP</b>	Conference of the Parties
<b>CTCN</b>	Climate Technology Center and Network
<b>CTE</b>	Executive Technical Committee
<b>DAC</b>	OECD Development Assistance Committee
<b>FAO</b>	Food and Agriculture Organization
<b>GCF</b>	Green Climate Fund
<b>GDP</b>	Gross Domestic Product
<b>GHG</b>	Greenhouse Gas
<b>GIZ</b>	German Corporation for International Cooperation
<b>GN-SEC</b>	Global Network of Sustainable Energy Centres
<b>GWNET</b>	Global Women's Networks for the Energy Transition
<b>HCREEE</b>	Himalayan Centre for Renewable Energy and Energy Efficiency
<b>IAI</b>	Inter-American Institute for Global Change Research
<b>IKI</b>	International Climate Initiative
<b>ICCCAD</b>	International Centre for Climate Change and Development
<b>ICLEI</b>	International Council for Local Environmental Initiatives
<b>ICZM</b>	Integrated Coastal Zone Management
<b>IDB</b>	Inter-American Development Bank
<b>IGOs</b>	Inter-Governmental Organizations
<b>INDC</b>	Intended Nationally Determined Contributions
<b>IOs</b>	International Organisations
<b>ITS</b>	Intelligent Transport Systems
<b>IUCN</b>	International Union for Conservation of Nature
<b>LACCW</b>	Latin American and Caribbean Climate Week
<b>LUCCC</b>	Least Developed Countries Universities Consortium on Climate Change

<b>MUCCRI</b>	Makerere University Centre for Climate Change Research and Innovations
<b>NDCs</b>	Nationally Determined Contributions
<b>NSC</b>	North-South Cooperation
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>PCREEE</b>	Pacific Center for Renewable Energy and Energy Efficiency
<b>PM</b>	Annual mean levels of fine particulate matter
<b>PV</b>	photovoltaic
<b>RedINGEI</b>	Latin American Network on Greenhouse Gas Inventories
<b>SCP</b>	Singapore Cooperation Programme
<b>SCPI</b>	Southern Climate Partnership Incubator
<b>SDGs</b>	Sustainable Development Goals
<b>SIACREEE</b>	Central American Centre for Renewable Energy and Energy Efficiency
<b>SIDs</b>	Small Island Developing States
<b>SRI</b>	System of Rice Intensification
<b>SSC</b>	South-South Cooperation
<b>TCTP</b>	SCP Third Country Training Programme
<b>TEC</b>	Technology Executive Committee
<b>UAE</b>	United Arab Emirates
<b>UN</b>	United Nations
<b>UNDP</b>	United Nations Development Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>UNOSSC</b>	United Nations Office for South-South Cooperation



# Part I: Workshop On South- South And Technological Cooperation For Climate Action And Sustainable Development

Held as part of the Asia-Pacific Climate Week  
2018 Singapore, July 2018





Keynote Speech by  
**Patricia Espinosa**,  
Executive Secretary, United Nations  
Framework Convention on Climate  
Change (video message)

As we head towards the second half of the year in our lead up to COP 24 in Poland, our work has never been more important. As you know, we have three primary goals to accomplish: we need to complete the implementation of the Paris Agreement—namely, finalizing its work programme; we need to dramatically accelerate climate ambition before 2020; and we need to have this ambition reflected in the next round of NDCs. All three are critical to achieving the goals set out in the Paris Agreement and limiting global temperature rise. The world needs this. The impacts of extreme weather are already creating chaos.

Climate change is about more than just the weather or the economy, of course. Climate change is connected to almost any significant challenge humanity faces. If we are to make progress, we need cooperation at all levels. This includes South-South and triangular cooperation. What does that mean? It means more integrated, coherent approaches—ones that look beyond climate change issues to where other important issues meet. These issues are clearly outlined in the Sustainable Development Goals. South-South & Triangular Cooperation, including technological cooperation, can play a complementary role to what we are already doing with respect to North-South cooperation. This is especially true when it comes to ensuring that resources, skills, and capacities are provided and developed which will help developing countries achieve their SDGs and implement the Paris Agreement.

Part of the job includes promoting and scaling up cooperation on mitigation and adaptation technologies. So, we must also bring multiple actors together: That's why I welcome the efforts of the UNFCCC Technology Executive Committee and the UNOSSC to move all of this forward. They can help support, facilitate, and promote technological cooperation that will scale up the implementation of climate actions. They also assist countries in implementing their NDCs and attaining sustainable development. That's why today's workshop is such an important occasion. It is an opportunity to share best practices and technological cooperation at a regional level. It also allows for engagement with interested stakeholders.

All of this information is vital as we support nations in the achievement of the Paris Agreement goals and sustainable development in general. Ladies and gentlemen—dear friends—I want you to remember that your work here is crucial to our overall success. I also want you to remember that cooperation is truly the way forward. We are all connected, and we are all in this together. By doing our part by exploring new opportunities and as we learn from each other to address climate change, we are doing more than just changing the weather. We are building a better future— one that is cleaner, greener, and more prosperous for all.

Let me start by thanking the government of Singapore for hosting the Asia-Pa-



**Keynote speech by  
Jorge Chediek,  
Secretary-General's Envoy on  
South-South Cooperation and  
Director, United Nations Office for  
South-South Cooperation  
(video message)**

cific Climate Week and also our partners at UN climate for providing the space for exchanging our experiences in an important area of development. The 2030 agenda and Paris agreement, as you know, provide a blueprint for our sustainable future. These agendas are indispensable because, as you know, the current trends are unsustainable. We need to change the way we develop, and in that context, South-South Cooperation can be a critical element. The sharing of experiences among developing countries is a critical means of implementation for both of those agendas. The positive experiences that the south is generating are a critical component towards how we can get together towards the world we want: the world that leaves no one behind, the world that is sustainable.

The Asia-Pacific region that is home to over half of the world's population has provided a lot of great successes and examples. Many of the countries that are presenting in the event today—Bangladesh, Indonesia, Pakistan, Singapore, South Korea and Thailand—showcase very valuable experiences that I hope will provide a basis for exchanges of ideas among yourselves and also with other countries of the Global South. In this regard, the UN is committed to supporting these types of exchanges. As you are probably aware, the UN promulgated an action plan for South-South Climate Cooperation. My office is the custodian of the implementation of the plan and we are firmly committed to providing support to these types of initiatives and to engage countries and other stakeholders on their having more and better South-South Cooperation to address the challenge of climate change.

Also, in the context of the 40th anniversary of the Buenos Aires plan of action, which was the instrument that included South-South Cooperation in the UN, there will be a conference in March of 2019 in Buenos Aires, Argentina. The conference will be a high-level occasion to review how South-South Cooperation can contribute to the implementation of the Paris Agreement, the SDG Agenda, and other global commitments.

We look forward to your engagement as you showcase examples of cooperation in climate change as a model of how developing countries, with the support of other countries and organizations, can contribute towards the achievement of this global agenda for the betterment of the world. I wish you success in your deliberations and our office stands ready to continue to deepen and expand this collaboration. Thank you.



Opening Speech by  
**Youba Sokona**,  
Vice-Chair of the Intergovernmental Panel on Climate Change (IPCC) and Special Advisor on Sustainable Development, The South Centre

Three key messages emerged from the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. (i) Human influence on the climate system is clear and unequivocal. (ii) The more we disrupt our climate, the more we risk severe, pervasive and irreversible impacts; and (iii) We have the means to limit climate change while building a more prosperous and sustainable future for all. Clearly, development pathways that affect greenhouse gases emissions and resilience will influence climate change, and climate change affects all aspects of the development agenda.

More than half of the cumulative anthropogenic emissions of CO<sub>2</sub> between 1750 and 2010 have occurred in the last 40 years, and emissions are increasing in a much higher rate than in the past. It is important to have in mind that stabilization of atmospheric concentration of greenhouse gases requires moving away from baseline of current trends, regardless of mitigation goals. The international community has agreed to limit global mean temperature to well below 2°C above pre-industrial levels. The IPCC Fifth Assessment Report shows that there are a range of mitigation pathways consistent with this objective but their implementation will require substantial technological, economic and institutional challenges.

Baseline scenarios— those without additional mitigation efforts— result in global mean surface temperature increases in this century from 3.7 to 4.8°C compared to pre-industrial levels. This will imply the risks from climate change to be high to very high across dimensions of concern as indicated by IPCC reports since the third assessment. Throughout the years the observations indicated that the situations are getting worse and worse.

Urgent actions are required to address those multidimensional problems. And the 17 SDGs and their 169 targets present unique opportunities. It is because they refer to global development priorities and encompass the three dimensions of sustainable development—social, economic and environmental. They are universal and they include climate change providing us the inspirational narratives on the desired future for human development globally. We need to look at these different elements with the aim to maximizing synergies and minimizing trade-offs.

Climate change is a stressor and threat multiplier and climate change responses can positively or negatively impact sustainable development. Both mitigation and adaptation are equally important. Very frequently developing countries are arguing that they are mainly interested in adaptation and not in mitigation. This is valid to a certain extent, as we cannot adapt if we are not mitigating. The less we mitigate the more we adapt, and, we may face a limit of our capacity or capability to adapt. So mitigation and adaptation are the two faces of a coin and cannot be separated.

Both of these climate change responses are necessary for sustainable development.

National development is the priority that concerns first countries. And secondly, how to make development more sustainable is becoming more and more crucial with the SDGs. And thirdly, how to make it compatible with climate is becoming vital. Those three issues are the critical concerns of all.

The traditional North-South cooperation model has limits that have been largely documented. Thus, we need to use the opportunity provided by South-South cooperation (SSC) through bilateral, triangular and trilateral, regional and multilateral cooperation to better address joint development, SDGs and climate change in Developing countries. We need to have strategic perspectives on these elements. A wide range of experiences and best practices exist since the mid twentieth century. It is not something new. We need to learn from these experiences and build on these and move ahead.

We need a clear understanding of the definition of SSC. There are a wide range of definitions. Broadly, SSC is understood as collaboration among countries of the South on political, economic, environmental and technical domains. All domains are equally important. SSC includes two or more countries. It can take place on a bilateral, regional, inter-regional, or international basis. SSC involves sharing knowledge, skills, expertise, and resources to achieve development goals through concerted efforts. And SSC has been expanded to trade, flows of foreign direct investment, and regional and technical cooperation. Technology cooperation is important.

Broadly at international level, we have three categories of countries ranging from Least Developed Countries in one extreme to Developed Countries in the other and Countries in between those two. There are specificities attached with all these countries on the basis of their GDP. There are specific needs of each of these categories of countries. It is important to see how best practices can be relevant to each of these categories of countries.

We have to learn from our mistakes as well. Most of the time we indicate best practices and we never talk about mistakes to be avoided. It is important for enhanced mobilization and participation of different stakeholders.

We have three key clusters of stakeholders—the policy community, the practice community and the research/knowledge community. All these communities should be involved in SSC at the policy, practice and knowledge level. To conclude, we need to find ways to stimulate the political will and vision for a more proactive SSC in order to deal with complex and complicated development problems. Access to financial and human resources are fundamental. Lastly, we need to link the short-term and long-term goals, efforts and development aspiration.



Opening speech by  
**Dinara Gershinkova,**  
Vice-Chair, UNFCCC Technology  
Executive Committee (TEC)

It is my pleasure to be here with you presenting a keynote speech on behalf of the UNFCCC Technology Executive Committee (TEC).

The TEC is the policy arm of the Technology Mechanism established in 2010 with a view to enhance climate technology development and transfer to developing countries. The work of the TEC focuses on identifying policies that can accelerate the development and transfer of technologies to support countries' mitigation and adaptation actions.

Parties to UNFCCC also called for the TEC to promote and facilitate technology collaboration among countries and various stakeholders and to catalyse the use of best practices, guidelines and other facilitative tools to promote actions on mitigation and adaptation.

The key products of TEC are policy briefs, executive summaries and key recommendation and messages of the Conference of the Parties. In this context, the TEC began to explore its potential to promote South-South and Triangular cooperation in 2015, after it was revealed there was a limited knowledge on cooperation on adaptation technologies, while various good and very successful adaptation practices have been implemented by countries.

The initial focus of the TEC was on two key areas identified by countries themselves— agriculture and water. The TEC produced a background paper in 2015 and held thematic dialogues in 2016 on these particular themes and discussed with experts during the dialogues the potential opportunities. Then TEC developed policy briefs on these issues in 2017.

In the context of agriculture and water adaptation technologies, learning and sharing experiences through personal interactions such as exchange programs has proven to be an effective tool that can help to accelerate knowledge dissemination. For example, farmers of two countries can share knowledge. Hence in 2017, the TEC worked on this specific issue and developed a compilation of good practices.

Regarding knowledge sharing and practical learning, we look at a number of case studies in specific aspects such as means of knowledge sharing, like regular exchange and site visits, enhancement of endogenous capacity, replicability of indigenous knowledge and upscaling of practices in water and agriculture sectors.

I would like to share with you some highlights and recommendations arising from the above work. There is potential in promoting South-South and Triangular cooperation. Developing countries are more likely to benefit from sharing expertise and knowledge due to similar geography, climate, market sizes and users. South-South and triangular cooperation fosters knowledge sharing and offers opportunities to further explore the linkages between climate change and other development

areas. This specific aspect of climate cooperation—linking the climate agenda and other developmental agendas—has already been highlighted by other speakers.

South-South and triangular cooperation can fill the assistance needed and promote adaptation actions as articulated in the INDCs and NAPs. And global mechanisms, international networks and international organizations working on this issue play an important role of advancing climate technologies.

Also, drawing lessons from experiences in adaptation technologies, the above lessons apply across climate areas as well as areas related to sustainable development. The TEC could support this ongoing South-South and Triangular cooperation by raising awareness of potential technological cooperation and could join hands with other international organizations to promote the South-South and Triangular cooperation by providing the space for conversation and by providing technology and policy recommendations. I therefore very much welcome the TEC collaboration with UNOSSC in this important issue. We look forward to extending our cooperation.

The outcome of this workshop will have very practical means to support developing countries. The outcomes will contribute to the joint publication of the UNFCCC and UNOSSC scheduled to be released at COP24 in Katowice, Poland.

## Session 1: Experiences, Opportunities and Challenges of South-South and Triangular Cooperation in the Asia and the Pacific Region



Moderated by **Xiaohua Zhang**, Manager, Climate and Sustainability Programme United Nations Office for South-South Cooperation, Chief, Southern Climate Partnership Incubator

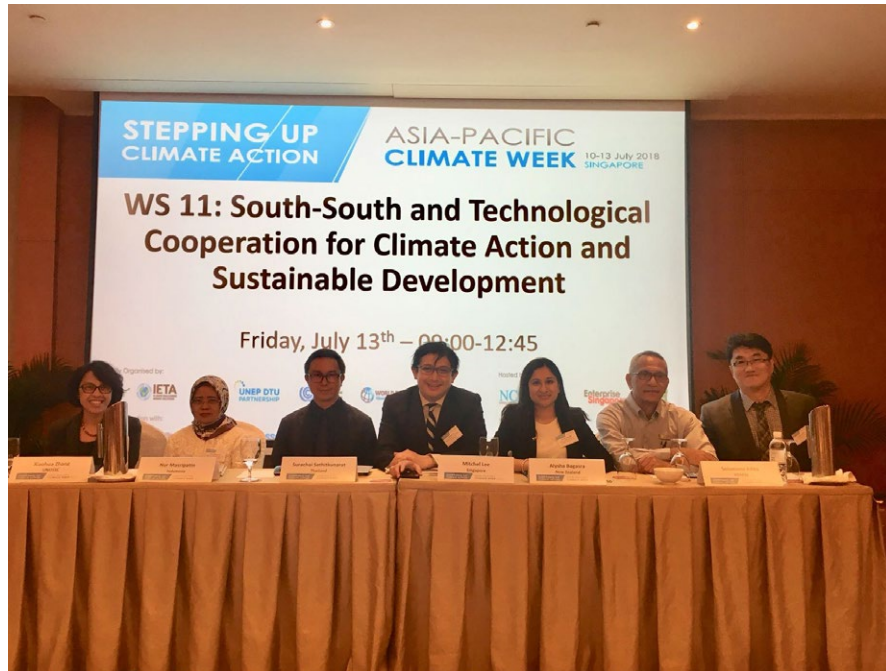
### Session 1 Overview: Experiences, opportunities and challenges of South-South and Triangular Cooperation in the Asia and the Pacific region

This session intends to present a look back on what countries have learned so far on approaches, success stories, and challenges of South-South and triangular cooperation, including technological cooperation in the Asia and the Pacific region. It explores their impacts and lessons learned, the challenges they have overcome as well as potential for their replication. The session proceeded with a few presentations from invited speakers to share their country experiences. Meanwhile, the organizers had coordinated with all the presenters ahead of the event, and suggested that they structure their presentations by answering the following questions:



**PART I:**  
WORKSHOP ON  
SOUTH-SOUTH AND  
TECHNOLOGICAL  
COOPERATION FOR  
CLIMATE ACTION  
AND SUSTAINABLE  
DEVELOPMENT

- 1) What are key factors for the successful implementation of South-South and triangular and technological cooperation in your country?
- 2) What are the main challenges in implementing the cooperation and how did your country effectively address these challenges?
- 3) Where are the key opportunities in the Asia and the Pacific region where South-South and triangular and technological cooperation can be sustainably upscaled? What are the enabling environments needed?





**Nur Masripatin,**  
Special Advisor to the Minister  
of Environment and Forestry/  
National Focal Point of  
UNFCCC, Indonesia

Indonesia has been involved in South-South cooperation (SSC) since early 1980s but intensive works started from the 2000s. From 2000 to 2015, Indonesia contributed about USD 49.8 million for SSC and triangular cooperation in the Asia Pacific region and beyond, mostly focusing on agriculture, scholarship, disaster risk reduction, maternal and child health, infrastructure and women empowerment.

Recently Indonesia has been focusing on SSC on climate change and partnerships. Indonesia would like to share experiences and opportunities under the ASEAN regional network on forest and climate change (ARKN-FCC).

The cooperation focuses on four areas— policy, methodology, capacity building, and communications. The focus was strengthening ASEAN member states in the negotiation process in UNFCCC and related forums and developing common positions for negotiation. Indonesia, together with ARKN-FCC members, has developed decision support tools—especially to identify drivers of deforestation and degradation in the ASEAN region.

Indonesia is one among 10 ASEAN member states. As the coordinator of ASEAN regional network, it used national budget, bilateral and multilateral funding to support the cooperation on climate change. In the past, support mainly came from the governments of Germany and Australia through ASEAN mechanism. The ASEAN Secretariat plays an important role in this regard. The new partners like India, Japan, and South Korea have also recently joined.

The key success of cooperation on climate change was as a result of flexibility and common understanding on the important roles of forests in the region in mitigation/adaptation and in economic development as well as for people's livelihood and other environmental protection. Also working modalities which ensure transparency, inclusiveness, acknowledge and respect the diversity of the AMS in various aspects, and focus on commonality for working together.

The challenges include gaps between resources needed and the available resources to implement agreed programmes and activities. Opportunities are emerging, including enhanced public-private partnership.



**Surachai Sathikkunarat,**  
Assistant Secretary General,  
National Science Technology  
Innovation Policy Office, Thailand

Under the Climate Technology Center and Network (CTCN), we work with networks around the world as well as nationally designated entities. Thailand had submitted six requests for projects to CTCN. The projects have been approved and implemented. I would like to focus on a special request that came from Bhutan.

This case is the first South-South collaboration case under the CTCN. Bhutan requested that Thailand's National Science Technology Innovation Policy Office transfer Thailand's experiences, lessons learned, and pitfalls in solving the traffic problem in Bangkok, Thailand.

Thailand reached out to CTCN for the above-mentioned project and CTCN approved it. This project focuses on greenhouse gas emissions in the transportation sector by improving public transportation through building capacity and use of technology. The first activity was held in Bangkok in February 2016. Bhutanese colleagues and friends learned about our technology and practices to minimize traffic problems.

Thailand focuses on intelligent transport systems (ITS) to help control traffic. The second activity was held in Bhutan. Bhutan invited Thai experts to strengthen collaboration in December 2016.

The last activity was held in the end of 2017. This is not only a perfect example of South-South cooperation but also of triangular cooperation, because Thailand receives technology knowledge from other developed and developing countries.

We need to localize the technology we already have in place to address climate change. Some of the technologies are not appropriate for immediate use and in that case, technology needs to be localized by sharing learned lessons and practices.

One of the key success factors of this project is that this is a demand led project from the technology recipient. This is not a supply-push but a demand-pull case. The co-benefits of such collaboration are immense.

I conclude my intervention by reiterating the importance of collaboration between communities on policy, research and practice. Also, governments need to create platforms for countries to showcase the demand of such projects.



**Mitchel Lee,**  
Deputy Director  
of Technical Cooperation  
Directorate, Ministry  
of Foreign Affairs, Singapore

The Singapore Cooperation Programme (SCP) is Singapore's main avenue to provide technical assistance to fellow developing countries from the South. In Singapore's early years, we benefitted from technical assistance from International Organisations (IOs) and developed countries such as Japan. As Singapore progressed, we decided to set up the SCP in 1992 as our way of paying it forward by giving back to the international community. SCP's focus is on human resource development, as we believe that this is key to nation-building and essential for sustainable development.

We also conduct training programmes meant for groups of countries like ASEAN, SIDS, Latin America, and the Caribbean. We also have what we call TCTPs which are partnerships with major donor countries and their aid agencies. This neatly fits into the traditional definition or framework of trilateral cooperation (DAC countries, "pivotal countries" and beneficiary countries). Another form of trilateral cooperation is our partnerships with international organisations like the UN agencies. We are discussing our collaboration with UNFCCC.

Under SCP, Singapore has a Calendar courses programme, which is open to the whole developing world on an annual basis. It is demand driven in the sense that we draw up programmes when countries subscribe to it. We continue to conduct programmes that are well-subscribed as they are relevant to development.

Customization of programmes depends on the requests received from countries. We also offer scholarships for masters students in our universities, mainly on public administration.

Customized training programmes are also available for longer durations. Vocational training is another major area of collaboration with Myanmar. We have training institutes in Myanmar. We also have "train the trainers" programmes.

The goal of such courses are to leverage technological solutions for sustainable development, by providing participants with good insights on ways to facilitate effective collaboration among governmental organisations, experts, and private sector actors, and to implement holistic and integrated solutions through site visits, discussions, and presentations.

In 2015, when SDGs were launched, Singapore made a package of programmes that feed into the SDGs directly on all three levels in areas of public administration and leadership, sustainable cities, water solutions and others.

Some of the concrete activities include providing water solutions at the village level. SCP has tended to focus on the private sector. Singapore has put together a proposal on smart nations and usage of technology to build resilient environments in collaboration with Argentina.

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**PART I:**  
**WORKSHOP ON**  
**SOUTH-SOUTH AND**  
**TECHNOLOGICAL**  
**COOPERATION FOR**  
**CLIMATE ACTION**  
**AND SUSTAINABLE**  
**DEVELOPMENT**

Singapore is the current chair for ASEAN. We have identified 26 cities in ASEAN who are going to take part in the cities network, an open and inclusive platform, to collaborate with the private sector in building the infrastructure needed to address climate change.

Singapore is in discussion with Thailand as well on smart cities.



**Alysha Bagasra,**  
Policy Officer, Climate Change,  
Ministry of Foreign Affairs and Trade,  
New Zealand, and Technology  
Executive Committee Member

The global context is changing. We are seeing developing economies becoming key actors in trade and investment as well as in development practices, demonstrating leadership in building common agendas to undertake meaningful climate action and meet sustainable development objectives.

There are a number of benefits of triangular cooperation. It can deliver technology and knowhow that's more readily available for other developing countries by taking advantage of similar contexts. Most triangular cooperation projects can happen among countries within the same region and can help two-way learning among peers facing similar challenges, as well as guaranteeing that the project is in line with recipient country's development plans and priorities.

It can also enable each partner to play to their respective strengths, target financial and technical support, and build capacity to manage development cooperation. New Zealand's approach to the development of the Pacific recognizes that the Pacific is a region that is particularly vulnerable to climate change. Our cooperation aims to help Pacific island countries adapt to the effects of climate change, build resilience, and reach their emissions reduction targets. We recognize that countries lead their own development. New Zealand ensures that our climate-related assistance aligns with the priorities and policies of partner governments to strengthen developing countries' ownership.

For example, New Zealand is helping achieve low carbon growth through the transfer of technologies and enhancement of local capacities to manage renewable energy sources. We also support agricultural development in many developing countries. Because New Zealand is a small donor, we specialize in areas for stronger results. This means we can focus to deliver a high level of impact, including by drawing on approaches that work well in one country when dealing with similar issues in others.

I will start by saying that triangular cooperation in the Pacific is a fairly new model. There are two examples I'd like to share. First one is the Te Mato Vai project to upgrade the water reticulation system in Rarotonga to increase storage capacity and build resilience to remove frequent dry spells with climate change. It is a trilateral partnership between New Zealand, China, and the Cook Islands, and it was the first cooperation of this kind in the region. The technology transferred included water storage tanks, filtration systems, and pipes.

The second project is the Solomon Islands Photovoltaic Power Generation project which aims to increase Solomon Islands' uptake of renewable energy mix, saving more than 450,000 litres of diesel and providing up to 7% of Honiara's electricity needs. It was a jointly funded project in partnership with the United Arab

Emirates. The technology transferred from New Zealand and the UAE included a one-megawatt grid-connected photovoltaic (PV) plant.

### How can Triangular Cooperation be effective?

It is important to involve local stakeholders and empower them to improve and to replicate local solutions. For example, for the Solomon Islands PV project, UAE provided immediate training and capacity development to enable the local energy authority to operate and maintain the system. New Zealand provided the asset management and planning capacity-building to ensure long-term sustainability of the project. The local energy authority was fully involved in the design process and was aware of the additional capacity and requirements to manage the system in the long term. For Te Mato Vai, following the completion of the physical work, the project will enter a new training phase that will seek to employ local people to operate and maintain the new water supply system.

Another recommendation was the integration of the hardware, software, and orgware which is necessary in bringing multiple stakeholders to work in their different capacities. For the Solomon Islands PV project, multiple stakeholders were brought together in different capacities—for example, the local energy authority, the UAE company, a Fiji-based power solutions company, and an Australia-based IT power company, as well as the local police and the provincial government. For Te Mato Vai, the China civil engineering construction corporation conducted stage one of the project while New Zealand is providing technical assistance, including regulatory and legal expertise.

The last recommendation was that there needs to be effective coordination and integration of technologies, cross-sectoral planning, and policy formulation by local and national governments. In Te Mato Vai, it was the Cook Islands government that defined the need to overhaul their water infrastructure in order to meet their health, economic development, and climate resilience goals. The project is a component of the Cook Islands' National Sustainable Development Plan and complements a wide range of work underway in renewable energy, tourism, education, and transport sectors.

Challenges of SSC: firstly, this model, as mentioned before, is fairly new in the region so it takes time to build an effective triangular approach and upscale. For example, the New Zealand-UAE energy partnership in the Solomon Islands was an innovative first. Secondly, partners may have different approaches and expertise. In order to mitigate that, we have found that having systems in place that provide checks and balances during project implementation can ensure that standards and expectations of partners are met. This is critical to ensuring high quality and sustainable outcomes in the long term.

To conclude, New Zealand's experience in these triangular projects has found that this model provides an opportunity to learn from each other and is an effective way of leveraging our funding and delivering effective climate resilient technology to benefit Pacific Island countries.



**Solomone Fifita,**  
Manager, Pacific Centre  
for Renewable Energy and  
Energy Efficiency (PCREEE),  
Pacific Community

With regard to opportunities in South-South cooperation, as a matter of fact we all appreciate that in the Small Island Developing States (SIDS) there is lack of economy of scale because of the size of countries with respect to mitigations and energy in particular.

There is heavy reliance on aid for energy development and there is lack of private sector involvement. The progress in renewable energy and energy efficiency in SIDS is generally slow and as a result, reliability and affordability continue to be a constraint in the sustainable development of SIDS.

It is through this realization that a lot of studies have been conducted and concluded with the need to provide a proper mandate to the specialized entities to develop the energy sector by focusing on market and investment and the central role of the private sector. It is an accepted belief that it is the private sector that will drive development in the renewable energy and energy efficiency space.

There is a need for specialized entities whose focus are to promote the capacity of both the public and private sector; support the availability of market data; and create investment and business opportunities.

For instance, in 2015, the Caribbean region established a Caribbean Center for Renewable Energy and Energy Efficiency (CCREEE). Just last year, the Pacific launched the Pacific Center for Renewable Energy and Energy Efficiency (PCREEE) for the Pacific islands. There are seven established centres of excellence on renewable energy and energy efficiency in the world right now.

We have one each in the Caribbean, East Africa, West Africa, the Pacific, Middle East, South East Africa, and South Africa, and we all have our own websites where we share information. These centres have formed the Global Network of Sustainable Energy Centres (GN-SEC).

Under development are the Himalayan Centre for Renewable Energy and Energy Efficiency (HCREEE) and the Central American Centre for Renewable Energy and Energy Efficiency or SIACREEE.

One of the early fruits from this cooperation is the development of an online capacity building programme that is for the Caribbean and the Pacific Islands, funded by the Spanish government, and conducted by the Centro de Investigaciones Energéticas, Medioambientales Tecnológicas (CIEMAT). This is a work in progress.

At the same time, we are developing a global network on mainstreaming gender and energy in collaboration with the Global Women's Networks for the Energy Transition (GWNET). There are many other South-South cooperation opportunities in areas such as ocean energy, joint energy investment promotion forums, and the formation of an energy regulators network.



## Session 2: The Way Forward—Advancing South-South Cooperation for Effective Implementation of the Paris Agreement and Sustainable Development in the Asia and the Pacific Region



Moderated by **Ariesta Ningrum**, Team Leader, Technology Policy and Strategy Unit, Finance, Technology and Capacity Building (FTC) Programme, UNFCCC Secretariat

### Session 2 Overview: The Way Forward—Advancing SSC for Effective Implementation of the Paris Agreement and Sustainable Development in the Asia and the Pacific Region

Considering the experiences shared in the previous session, this session intends to explore concrete and pragmatic ways, including methodological aspects, that relevant instruments and modalities may be used to design, finance and implement South-South and triangular cooperation initiatives. Speakers have been encouraged to share their perspectives and insights on how to further advance South-South cooperation, on the road towards the effective implementation of the Paris Agreement and 2030 Agenda for sustainable development.

This moderated session features a few panel interventions from speakers to address a couple of strategically designed questions, followed by panel discussions and responses to potential questions from the audience. Again, the structured questions have been pre-communicated with all panellists, as follows.

- 1) How can South-South, triangular, and technological cooperation help countries in their efforts to tackle climate change and to implement the Nationally Determined Contributions (NDCs) and the 2030 Agenda?
- 2) From your organization's perspective, what concrete and practical efforts could be undertaken to enhance cooperation to help countries address climate change and achieve sustainable development?
  - Areas: knowledge sharing, capacity building, technical support, funding mobilization, etc?
  - Design: Specific modalities or instruments?
- 3) How could international and inter-governmental organizations (such as UNOSSC, the Technology Mechanism) better support South-South, triangular, and technological cooperation on climate change?

**PART I:**  
WORKSHOP ON  
SOUTH-SOUTH AND  
TECHNOLOGICAL  
COOPERATION FOR  
CLIMATE ACTION  
AND SUSTAINABLE  
DEVELOPMENT



**Key Discussant:**  
**Rob Bradley,**  
Director, Knowledge and Learning,  
NDC Partnership Support Unit

The NDC Partnership is an innovative collaboration of 83 countries and 19 international institutions, together with a growing number of non-state actors. These partners have come together in recognition of the fact that the Paris Climate Agreement of 2015 was a major achievement, but that the process of turning this into reality is a complex one—one that requires political will, finance, technical support, and growing capacity development in all countries. The scale of challenge that we have set ourselves collectively is a large one that can be met only through collaboration. So, the three aims of the partnership are the following.

With regard to technical support, we work in countries, on their invitation, to facilitate technical support in order to achieve their NDC commitment effectively. For example, in July, we launched the partnership plan in Uganda where the government identified 49 specific tactical assistance actions required. These partnerships may require governmental action and UNDP action, as well as NGO action.

On the knowledge and learning front, we focus on collective learning going beyond the individual experiences of countries and try to identify the common challenges and lessons learnt that the countries are finding as they go forward with the implementation. By sharing everything we learn directly and immediately with all the members, we are allowing countries and institutions to reflect and learn together to address shared challenges and scale-up successes. A bi-weekly message updates members and partners about upcoming missions and events. We also have online platforms for partners or anyone to find the technical resources they are looking for. We have a toolbox navigator that allows users to find particular tools such as implementation guides, technology co-operation platforms, and sources of data. We have an upcoming version that allows countries to access case studies more easily.

With regard to financial cooperation and turning NDC implementation activities into financial support: We have growing partnerships with the GCF and other international climate funds who are usually an integral part of the teams as we move forward. The partnerships include multilateral development banks and donor agencies that can help bail out the funding over time, and a growing part is to include the private sector so that we can scale up to the investment required for the large-scale systematic changes that the NDCs require.

But a major part of our work is about peer-to-peer convening. We have repeatedly heard from our members that there is a need for countries to learn directly from each other to share experiences of NDC implementation. We particularly focus on four areas: the process of mainstreaming NDCs into government core decision-making including budgetary processes and planning; accessing finance and investment; gender equity; and enhancing the value of knowledge resources.



**Shahid Kamal,**  
Special Advisor, Commission  
on Science and Technology  
for Sustainable Development  
in the South (COMSATS),  
Islamabad, Pakistan

What we need today are partnerships around the world and within our own countries as community engagement is essential. Secondly, knowledge and information sharing is critical. Thirdly, multi-layered collaboration is imperative to attain outcomes.

Even though there is escalation in collaborative activities, there is a need to scale these further in order to keep up in an era of fast changing technological and political landscapes, keeping in mind the importance of SDGs.

At the moment we have a developing countries institution in the Commission on Science & Technology for Sustainable Development in the South (COMSATS) based in Pakistan. This is an inter-governmental organization consisting of 26 member states from South America, Africa, and Asia. The role of forums like COMSATS is vital for the attainment of SDGs.

From my personal experience on the NDCs, we realized that there is a need for integrated cooperation among member states to balance unequal knowledge distribution and capacity building. On the policy level, we have to consider multi-faceted problems, adopt a bottom-up approach, and enhance community participation. This is of particular importance in areas of agriculture and forestation.

Knowledge sharing is an extremely important area, and the role of South-South Cooperation becomes instrumental in this regard. Major challenges of technological and financial cooperation can be tackled effectively with South-South Cooperation.

Capacity-building should be a major focus of South-South Cooperation in the area of knowledge sharing. In order to maintain a repository of best practices, it is encouraging that United Nations Office for South-South Cooperation has built portals of knowledge exchange.

One of the areas of my involvement has been the setting up of the Center for Climate Research and Development (CCRD) in Pakistan. The purpose was to create awareness about the importance of climate change and its impacts on sustainable development by integrating climate change concepts in the curriculum of educational institutions. This has been started in the premier Agriculture University of Pakistan.

The role of media has been instrumental in raising awareness about climate change. Lately media has been putting stories with respect to adverse effects of climate deterioration to the forefront. So there is now a greater degree of discussion and debate on climate change challenges, even holding the government accountable in this regard.

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**PART I:**  
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Inclusion of communities and governments at the local level is critical, as we need to have environment units at the local level that can work in tandem with the provincial and federal level in alignment with the achievement of NDCs.

Science, technology and innovation have become essential. We must give up the one-size-fits-all approach, develop a better understanding of indigenous knowledge in our societies, and find ways for a more pragmatic approach to support STI for sustainable development.



**Ina F. Islam,**  
Fellow, International Outreach  
and former Deputy Director,  
International Centre for Climate  
Change and Development  
(ICCCAD), IUB, Bangladesh

I would like to thank Rob Bradley for his scene setting observations providing an excellent basis for our discussions.

From this morning's deliberations, which have been very enlightening, we have seen how many of our countries are faring in their response to climate change challenges and their adverse effects.

Every country and its civic bodies should conscientiously recognize the individual needs for addressing these problems that have emerged.

In the morning session, we heard how some countries in the Asia-Pacific region are faring in this regard and how triangular cooperation has been effective and productive.

In Bangladesh the government also has taken some initiatives, primarily for the adoption of the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) and the creation of the Climate Change Trust Fund from its own resources to finance projects for implementation of the BCCSAP projects.

There has been a notable development in the establishment of the International Centre for Climate Change and Development (ICCCAD) at the Independent University, Bangladesh.

ICCCAD exemplifies South-South and triangular cooperation through its many initiatives. Its main focus is on long-term, sustainable knowledge sharing and capacity building on climate change adaptation in vulnerable countries.

Another striking achievement of the Centre has been its ability to liaise with the government and the private sector. It has been vocal in projecting and drawing international attention to the gravity of climate change problems and the funds and technology necessary to meet the needs.

As a matter of fact, such support efforts are essential for drawing the attention of developed countries and international organizations to enhance triangular cooperation.

ICCCAD has developed a long-term strategy by which to capacitate individuals, institutions, and governments on climate change adaptation. It does so through a number of mechanisms - firstly, through its Master's program on Climate Change and Development; secondly, through short courses which combine theory and practice.

Over 500 individuals are part of the Alumni network from 51 countries. The Centre is investing in a long-term relationship with these individuals and agencies. It has also been organizing annually a well-participated international conference, Gobeshona, which has turned into a platform for capacity building and exchange of knowledge and experience.

Another modality through which ICCCAD at IUB supports South-South Cooperation is the Least Developed Countries Universities Consortium on Climate Change (LUCCC). The initiative was established with the Makerere University Centre for Climate Change Research and Innovations (MUCCRI) at Makerere University, Uganda.

The LUCCC Consortium so far has extended to 12 universities in the LDC's (Bhutan, Nepal, Ethiopia, Sudan, Tanzania, Uganda, The Gambia, Senegal, Mozambique, and Bangladesh). LUCCC is intended to foster a South-South collaborative network for enhancing research capacity and proficiency in climate change adaptation. LUCCC's goal is to eventually reach out to all 47 LDCs in the same manner.

For furthering these activities and scaling up, injection of external funds and extension of technological cooperation are being sought.

International and intergovernmental organizations can better support South-South and triangular cooperation by organizing funds and providing technological cooperation on Climate Change Adaptation.

The Green Climate Fund (GCF) was created under the UN Framework Convention on Climate Change to channel up to \$100 billion a year from 2020 onwards by the developed countries to the developing countries to help them tackle climate change through mitigation and adaptation projects. The Fund started in Songdo, South Korea four years ago, in 2014. It has now approximately \$10 billion for disbursement for financing such projects.

Unfortunately, since the creation of the Fund, it has been unable to provide substantial funding for adaptation to most vulnerable communities and countries.

The director of ICCCAD, Dr. Saleemul, has observed that a main reason for this failure is that the fund is working as a "bank" focusing on investments in terms of repayment of loans. It looks for "bankable" projects. In particular, it looks for fiduciary and fund management capacities of both the recipient governments and the entities asking for funds. Obviously, the applicants cannot always come up to meet these requirements.

He has strongly pointed out that the GCF has to base its operations on different considerations. The GCF is the "Green Climate Fund" and not the "Green Climate Bank," with a mandate to not just give loans and seek repayment but also to give grants for which the return is supposed to be effective in tackling particular climate change adaptation problems.

To address this shortcoming of the GCF, it is necessary to rectify the major design failure of the GCF, enabling it to operate as a fund and not just a bank.

Triangular cooperation and availability of funds are unavoidable imperatives in the implementation of any substantive climate change adaptation programs.



**Rima Al-Azar,**  
Global Climate Governance  
Coordinator, Climate Change  
and Environment Division, Food  
and Agriculture Organization  
of the United Nations (FAO)

Inter-governmental collaboration is imperative to promote South-South Cooperation on climate change. Many countries have already accumulated a tremendous amount of knowledge on South-South activities.

Technological exchange has taken a pivotal position in some projects.

Capacity building is a major component of South-South Cooperation that incorporates two major components – technical inputs, and policies and institutions. The FAO works on agriculture issues and brings partners together to exchange ideas.

The FAO is also mapping out good practices in the Global South regarding climate change, food security, and nutrition with the idea that this would be a menu that countries could use to request some assistance/knowledge exchange from some other countries because SSC is both demand and supply driven.

SSC has been more of a supply-driven than demand-driven activity. Some changes in this pattern should be expected.

Finally, the FAO is part of the NDC partnership and is working as the technical working group on agriculture and food security in terms of climate change because NDCs are national commitments and this implementation of commitment will come from other sectors.

With that purpose in mind, the FAO is also establishing a knowledge hub, which will be an electronic forum where different countries and experts can come together for discussions and knowledge sharing.

In conclusion, to discuss the way forward to improve SSC, SSC should shift from supply-driven to demand-driven.

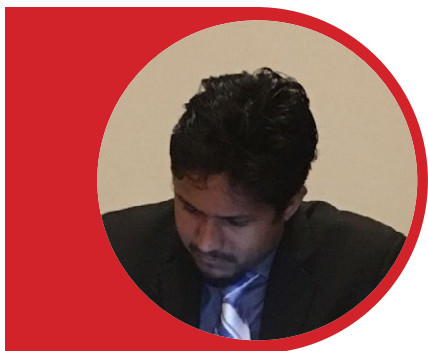
SSC knowledge exchange between similar countries should be a component in all the SSC projects.

The critical role of the private sector in SSC cannot be underestimated.

Examples in agriculture and food security have a big centre in China to build the capacity of experts in terms of agriculture and food security. Microsoft is also funding different activities in India and Africa in climate change and technology that could also be tapped in terms of SSC.

Challenges of SSC activities should also be shared. Knowledge products should be available in multiple languages to harness the true potential of information sharing.





**Mareer Husny,**  
Assistant Director,  
Ministry of Environment and Energy,  
Maldives and Technology Executive  
Committee member

NDCs are comprehensive plans that come from the priorities of governments. But having said that, NDCs remain a small part because they are a subset of development plans. Adaptation has been a central part of the NDCs that have been developed.

We would need appropriate financing in order to meet the goals set by the NDCs and capacity building along with technology transfer. Most of these NDCs have a conditional as well as voluntary part.

There is scope for collaboration in the global South within NDCs. These arrangements within SSC have gained great momentum, and this cooperation would allow creativity.

For effective implementation of goals on the ground we would need countries to collectively call for action from all levels. Real implementation experiences a number of barriers.

How can we see a successful project looks like? Firstly, the project would be a capacity building activity. It would be an on-going project. It has to post opportunities and create a platform of exchange on local knowledge as well as imported technology. Secondly, ownership of the country: NDCs as nationally owned. Thirdly, there should be a clear exit strategy. Once a project is done there should be a way to replicate it into greater projects. Fourthly, finance is critical for developing countries especially when dealing with SIDS. Finally, bankable projects – projects need to be chosen wisely when looking to be executed in the SIDS where banks should be ready to take greater risks.

As Albert Einstein said, we cannot solve problems with the same thinking that we used when we created them. So, we need more creativity and support of the financial institutions when talking about achieving NDCs.

**Natarika Wayuparb Nittiphon**

Deputy Executive Director,  
Thailand Greenhouse Gas  
Management Organization,  
Thailand

How can SSC help countries in tackling climate change and achieving SDGs? I would like to talk mainly about capacity building and the cooperation for the same with the help of an example of world leaders.

For example, Thailand's football team was rescued from a cave in a heroic way and that was an example of South-South and triangular cooperation.

The picture of the rescue shows representatives from Thailand, Australia, Sweden, China, the U.S. army, and even the private sector with Elon Musk sending help. What we learn from this case is that success comes from many parts of contribution and support.

However, we would like to touch upon the success of the leader: the local governor made a decision based on the facts and solved the problem by coordinating with domestic and international teams and within the limited timeframe of a fast approaching monsoon.

What we learnt was about the leader. This shows that a leader for change is important. The leader is brave and responsible for the decision. They used a mix of technologies to solve the complex problems.

They coordinated with many teams utilizing expertise from around the world. The teamwork and the ability to coordinate and cooperate with different fields was what made this a success. Keeping this model in mind, we should move forward with SSC.

## Summary

With the entry-into-force of the Paris Agreement under the UNFCCC, countries are moving progressively towards getting ready for its effective implementation. In the meantime, the United Nations system and United Nations Member States seek to put in place more integrated and coherent approaches to implement their Nationally Determined Contributions (NDCs), contributing towards the achievement of the goals of the Paris Agreement and the Sustainable Development Goals (SDGs) of the 2030 Agenda.

In the context of supporting developing countries' nationally determined actions to address climate change and achieve sustainable development, the role of South-South and triangular cooperation becomes more important. However, the opportunities offered by these types of cooperation remain to be fully exploited. South-South cooperation, including technological cooperation for climate adaptation and mitigation activities, plays a key complementary role to that of North-South cooperation in ensuring that resources, skills, and capacities are provided and developed to enable developing countries to achieve their sustainable development goals and implement the Paris Agreement.

It is in this context that the United Nations Office for South-South Cooperation (UNOSSC), in partnership with the Technology Executive Committee (TEC) of the UNFCCC, convened the second workshop in 2018 on 13 July during the Asia Pacific Climate Week (10-13 July) in Singapore.

The workshop convened more than 11 United Nations Member States, 5 international organizations and many entities in the Asia Pacific region to:

- ▶ Enhance understanding and awareness of the potential of South-south cooperation and triangular cooperation in the Asia-Pacific region;
- ▶ Gain insight on how to make full use of the critical and complementary role of South-South cooperation and triangular cooperation to overcome shared challenges and accelerate progress towards sustainable development and implementation of the Paris Agreement; and
- ▶ Provide space for exchange experiences among countries with a view to initiating or scaling up South-South cooperation initiatives.

Session I of the workshop presented success stories of South-South and triangular cooperation, including technological cooperation, discussed relevant lessons learned and potential for replicability, and explored concrete and practical ways forward to enhance South-south and triangular cooperation to combat climate change and to achieve sustainable development.

Session II of the workshop took into account the experiences shared in the previous session and explored concrete and pragmatic ways to design, finance and implement South-South and triangular cooperation initiatives in the Asia and the Pacific region. These included methodological aspects, as well as relevant instruments and modalities that could be used.

Speakers were encouraged to share their perspectives and insights on how to further advance South-South cooperation, on the road towards the effective implementation of the Paris Agreement and the 2030 Agenda for sustainable development.

Discussions recognized climate change as an important issue for Asia and the Pacific region. There remain challenges at the technical, economic and institu-

tional level to stabilize atmospheric greenhouse gas concentrations. The reality of developing countries in Asia constitutes a lack of economy of scale, inadequate skilled technical manpower, heavy reliance on grant aid, low private sector investment and slow progress on renewable energy and energy efficiency.

However, Asia and the Pacific region have produced great examples of successful climate solutions through South-South, triangular, and technological cooperation, not only at the government-to-government level, but also through cooperation between governments, non-governmental organizations, and the private sector.

But there exist several challenges to South-South climate cooperation. These include capacity and the need to involve multiple stakeholders; the gap between stakeholders and the global community; the gap between the resources needed and the resources available to implement agreed-upon programmes and activities; the time required to build effective South-South and triangular cooperation approaches and scale them; and limited dissemination of climate solutions.

Also, climate change and sustainable development are cross-cutting and complex issues as responses to climate change can both positively and negatively affect social and economic conditions. Both mitigation and adaptation activities are required, as adapting to climate change is not possible without mitigating climate change. Without additional mitigation, risks from climate change will be high to very high across dimensions of concern to policymakers and to the public.

Having said that, there are opportunities emerging, including enhanced public-private partnerships. Nevertheless, the capacity to develop such partnerships and to access finances from various sources has yet to be enhanced.

There is a need to develop a climate repository of experiences, climate asset directory, and climate asset performance indicator in order to connect public authorities, South-South cooperation providers, South-South cooperation receivers, activists, and interested groups and to draw a clear picture of climate cooperation.

In order to scale South-South climate cooperation activities, a thorough analysis needs to be made of situations, demands, needs, capacities, and strengths of South-South cooperation providers and receivers. Political commitment, finance, technical capacity, and inclusion of the private sector are critical factors.

In addition, transparency, inclusiveness, and enhanced public-private-people partnership are required to create the enabling environment necessary to scale South-South and triangular cooperation in a sustainable manner. Involvement of policy, practice and research communities to create political will, human and financial resources, and orientation of institutions is vital in advancing South-South climate cooperation.

Furthermore, it is necessary to recognize the development needs of the Asia-Pacific region; to focus on high impact areas to deliver effective results; to involve and empower local stakeholders to enable the replication and improvement of technologies; to integrate hardware and software and bring in multiple stakeholders in different capacities; to coordinate technologies in cross-sectoral planning and policy formulation with the help of local and national governments; and to have checks and balances during project implementation to ensure that the standards and expectations of partners are met, thereby ensuring sustainability outcomes in the long term.

In conclusion, South-South and triangular and technological cooperation, including regional and multilateral cooperation, could play a critical and comple-

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mentary role in implementing the 2030 Agenda and the Paris Agreement and in promoting and scaling mitigation and adaptation climate technologies in the Asia and the Pacific countries.

## Part II: Workshop On South- South And Technological Cooperation For Climate Action And Sustainable Development

Held as part of the Asia-Pacific Climate Week  
2018 Singapore, July 2018





Opening remarks by  
**Ignacio Lorenzo**,  
Director, Climate Change Office,  
Ministry of Housing, Territorial  
Planning and the Environment,  
Uruguay (on behalf of Jorge Rucks,  
Deputy Minister, Ministry of Housing,  
Territorial Planning and Environment,  
National Directorate of the  
Environment, Uruguay)

I am very honored to open up the session and address the workshop on behalf of Deputy Minister Jorge Rucks.

Thank you to all our participants for attending the Latin America and Caribbean Climate Week and also for participating in the workshop this morning. This workshop will discuss a very important topic, South-South cooperation. It has been organized by the United Nations Office for South-South Cooperation (UNOSSC), in partnership with the Technology Executive Committee (TEC) of UNFCCC and the Inter-American Institute for Global Change Research (IAI).

The workshop will share country experiences, exchange insights and provide recommendations on moving forward.

From the perspective of Uruguay, we think that climate actions require strong cooperation. It has been a huge concern in the international community that a few developed countries are recently moving away from climate actions, while it is also very promising that many developing countries are moving ahead.

However, it is very important that this shift of leadership does not change the responsibilities of the Northern countries on international climate cooperation. Instead, the growth of the global South enables many developed countries to build their strengths and to implement their NDCs, which will contribute to achieving their sustainable development goals—and these can be shared among others from the global South.



Opening remarks by  
**Mariano Jordan**,  
Director for Innovation  
and Cooperation, Ministry  
of Science, Technology  
and Productive Innovation,  
Argentina

Argentina is very actively engaging in South-South cooperation. Since 1992, Argentina has established the Argentine Fund for Horizontal Cooperation (FO-AR) and has made very good use of the fund.

Meanwhile, more than 50% of the fund has been used for South-South cooperation, including efforts on science and climate change.

Partner countries include many developing countries from around the globe, such as Mozambique, Vietnam, etcetera. South-South cooperation is very important to Argentina and, in the context of BAPA+40 and the UN high-level event, there is strong momentum to further promote South-South cooperation.

For areas of South-South cooperation, Argentina has been closely working with many others on sea and ocean as key areas of SSC. By working in these areas on South-South cooperation, Argentina has gained many experiences and lessons.

In order to further promote SSC, four main challenges need to be properly addressed. First, financial resources are very critical since marine cooperation is expensive, including finances for infrastructure. In this regard, Argentina used some funds to support the cooperation. Second, South-South cooperation should also include efforts toward managing alliances, which have still been limited at the current stage.

By doing so, the interests of various stakeholders can converge into supporting the achievement of common goals. Third, there are also difficulties of coordination from overlapping institutions involved in marine-related international cooperation.

More effective internal and external coordination is needed in order to move ahead. Last but not least, it is necessary to adopt a holistic approach to advance South-South cooperation, rather than different agencies having different targets and actions.





Opening remarks by  
**Manuel Pulgar-Vidal**,  
Former Minister of Environment,  
Peru, and COP20 President;  
Leader of Climate and Energy  
Practice, WWF

South-South cooperation needs to be conceptualized in both political and technical perspectives. Currently in the political context, we are facing difficulties due to insufficient political momentum and resources for climate actions.

On the technical side, it is a fact that the world is not on track to achieve the targets of the Paris Agreement.

In the state of the implementation of the Paris Agreement, South-South and technology cooperation is important to contribute to the creation of enabling conditions to what is the most important on domestic implementation. Meanwhile, many favorable things are also happening.

The United Nations is repositioning the system, and is repositioning the role of the General Assembly, in mainstreaming the 2030 Agenda for Sustainable Development.

A few key questions need to be addressed, including the lack of ambition for the current NDCs, the importance of achieving and improving NDCs in the new rounds, the need to deliver all the conditioned NDCs, addressing both mitigation and more importantly adaptation concerns of developing countries, and supporting developing countries to establish science-based targets.

Hence, I want to highlight that cooperation in these fields is important. As for the areas of advancing South-South cooperation, it should be noted that ocean, forest, carbon pricing and the IPCC 1.5-degree target are all relevant areas.

Meanwhile, governance on SSC is also a key issue, involving possibly many entities in a government on SSC and requiring an effective system for coordinated operations.



Opening remarks by  
**Marcos Regis da Silva,**  
Executive Director, Inter-American  
Institute for Global Change Research

South-South cooperation has evolved enormously over the last forty years. The concept is firmly established in multilateral fora and based on excellent home-grown scientific capacity and knowledge.

The Southern regions have evolved and have achieved considerable progress and have developed strong scientific capacities and institutions that are contributing to viable solutions to global challenges. Latin America and the Caribbean region, for example, counts on unique and rich scientific and technological resources.

This capacity contributes, on an equitable basis with other more developed regions, to the promotion of sustainable development and use of natural resources, research on climate change, and joint work on many other pressing topics.

South-South cooperation, as a mature and mutually beneficial mechanism, provides the means to optimize the use of southern resources and capacities.

It also offers opportunities for the use of these resources in the development of a region-wide strategy to meet the challenges posed by global changes. Such a collaboratively agreed-to vision and strategy provide a context for joint approaches that are regional in scope and that have global benefits and impacts.

Latin America and the Caribbean share many cultural attributes, making joint efforts easier to develop and implement. We share a common history, face common problems, and have the means to find solutions to problems that threaten our welfare. The IAI looks very much forward to working with our partners in the region and in other parts of the globe.



**Keynote Speech by  
Patricia Espinosa,  
Executive Secretary, United Nations  
Framework Convention on Climate  
Change (video message)**

As we enter the second half of the year in our lead-up to COP24 in Poland, our work has never been more important. As you know, we have three primary goals to accomplish. We need to complete the implementation of the Paris Agreement, namely finalizing its work programme; we need to dramatically accelerate climate ambition before 2020; and we need to have this ambition reflected in the next round of nationally-determined contributions. All three are critical to achieving the goals set out in the Paris Agreement and limiting global temperature rise. The world needs this. The impacts of extreme weather are already creating chaos.

Climate change is about more than just the weather or the economy, of course. Climate change is connected to almost every significant challenge humanity faces. If we are to make progress, we need cooperation at all levels. This includes South-South and triangular cooperation. What does that mean? It means more integrated, coherent approaches — ones that look beyond climate issues to where other important issues meet. These issues are clearly outlined in the Sustainable Development Goals.

South-South and triangular cooperation, including technological cooperation, can play a complementary role to what we are already doing with respect to North-South cooperation. This is especially true when it comes to ensuring that resources, skills, and capacities are provided and developed, which will help developing countries achieve their sustainable development goals and implement the Paris Agreement.

Part of the job includes promoting and scaling up cooperation on mitigation and adaptation technologies. So, we must also bring multiple actors together. That's why I welcome the joint efforts of the UNFCCC Technology Executive Committee and the UN Office for South-South Cooperation to move all of this forward. They can help support, facilitate, and promote technological cooperation that will scale up the implementation of climate actions. They also assist countries in implementing their NDCs and achieving sustainable development.

That's why today's workshop is such an important occasion. It's an opportunity to share best practices and technological cooperation at a regional level. It also allows for engagement with interested stakeholders. All of this information is vital as we support nations in the achievement of the Paris Agreement's goals and sustainable development in general. Ladies and Gentlemen—dear friends—I want you to remember that your work here is crucial to our overall success. I also want you to remember that cooperation is truly the way forward. We are all connected and we're all in this together. By doing our part to explore new opportunities, and as we learn from each other to address climate change, we are doing more than just changing the weather. We are building a better future—one that is cleaner, greener, and more prosperous for all.



Opening remarks by  
**Jorge Chediek**,  
Secretary-General's Envoy  
on South-South Cooperation  
and Director, United Nations Office  
for South-South Cooperation  
(video message)

It is a great pleasure to address this workshop on South-South and technological cooperation for climate action and sustainable development. I thank the Government of Uruguay for hosting the 2018 Latin American and the Caribbean Climate Week and providing an invaluable platform for the region to discuss collaborative approaches to address climate change.

The 2030 Agenda and the Paris Agreement, as you know, provide a blueprint for our common sustainable and prosperous future. To achieve that, enhanced international cooperation is more needed than ever. South-South cooperation on climate change, as a complementary modality to North-South cooperation, can be an important tool in enhancing such collaboration, whereby countries learn from each other and cooperate with each other.

The Latin American and the Caribbean region remains a critical player in global and regional cooperation, especially with the stable economic growth in recent years. In fact, many countries in the Latin American region are leading the charge on South-South climate cooperation including these presenting here such as Argentina, Belize, Brazil, Chile, Costa Rica, Jamaica, Peru, Uruguay and Venezuela among others. Your presence today here is a testimony that we can all work together to enhance climate cooperation and achieve sustainable development. In this regard, the United Nations is committed to supporting the Latin American and the Caribbean regions' momentum in deepening regional cooperation on trade, investment, and technology to effectively deliver on 2030 Agenda and climate goals.

In regard to expanding our support, the United Nations has adopted an Action Plan on South-South Climate Cooperation (2017-2021) in an endeavor to enhance momentum, strengthen knowledge, accelerate and coordinate UN efforts, and engage multi-stakeholders for enhanced global climate action. Also, on the occasion of the fortieth anniversary of the adoption of the Buenos Aires Plan of Action (BAPA), the High-Level Conference on South-South cooperation will be held in March 2019 in Buenos Aires, Argentina to discuss how SSC can help implement 2030 Agenda. I look forward to active engagement of countries in the Latin American and the Caribbean and welcome you all provide recommendations and to contribute to BAPA+40.

I congratulate you all for your hard work and achievements and I very much look forward to working with all of you and wish you a successful event.

## Session 1: Experiences, Opportunities and Challenges of South-South and Triangular Cooperation in the Latin American and the Caribbean Region



Moderated by **Ajita Singh**, Analyst, Climate & Sustainability Programme, United Nations Office for South-South Cooperation

### Session 1 Overview: Experiences, Opportunities and Challenges of South-South and Triangular Cooperation in the Latin American and the Caribbean Region

This session presented a look back at what countries have learned so far with regard to approaches, success stories, and challenges of South-South and triangular cooperation, including technological cooperation in the Latin American and Caribbean region. It explores the impacts of South-South and triangular cooperation in this region, along with lessons learned, challenges, and potential for replication.

The session included presentations from invited speakers who shared their country experiences. Prior to the event, the organizers had coordinated with all the presenters suggested that they structure their presentations by answering the following questions:

- 4) What are key factors for the successful implementation of South-South, triangular, and technological cooperation in your country?
- 5) What are the main challenges in implementing the cooperation and how did your country effectively address these challenges?
- 6) Where are the key opportunities in the Latin American and the Caribbean region where South-South and Triangular and technological cooperation can be sustainably upscaled? What are the enabling environments needed?





**Adelle Thomas,**  
Visiting Researcher, University  
of The Bahamas; and Senior  
Caribbean Research Associate,  
Climate Analytics

It's my pleasure to share an experience of triangular cooperation in the Caribbean that is focused on Integrated Coastal Zone Management (ICZM). ICZM is a well-recognized process for the holistic management of coastal zones to achieve sustainability, and has also been acknowledged as very effective in addressing existing and long-term coastal challenges, including climate change.

Within the Caribbean, there has been some progress on developing and implementing robust ICZM measures. However, there are still many countries that have not yet begun to manage coasts in an integrated way. Recognizing this gap, in late 2017, the Caribbean Coastal Resilience Forum was held in The Bahamas. This forum brought together regional and international experts in ICZM for discussions on how to increase coastal resilience in the region. Over the course of forum, there were three structured sessions that consisted of presentations, panel discussions and breakout sessions.

The first session focused on technology for coastal resilience and identified existing innovative technologies that provide efficient and cost-saving solutions in data-poor contexts, such as the Caribbean. One of the technologies that has been successful in the region is the usage of satellite derived data and drone surveys. These technologies provide spatial data including bathymetry, topography, land use, storm surge, and wave modelling that are often lacking in developing island states.

The second session focused on sharing experiences with ICZM from the region. We discussed strategies and lessons learned from countries with long-term experience with ICZM including Barbados, Jamaica, Trinidad and Tobago, and Belize. Countries shared how to address challenges in developing and implementing ICZM at the national scale, as well as the potential need for regional approaches to pool resources.

The final session focused on the need for effective partnerships to achieve coastal resilience. We discussed the engagement of the private sector, NGOs, academic institutions, and international funders in ICZM. The forum itself was actually developed and hosted by the Inter-American Development Bank (IDB). This highlighted the need for support from the developed world to foster cooperation among developing countries.

Key messages from the forum highlight the importance of coastal management, and also the importance of triangular cooperation in the region. As climate change impacts increase, coastal resilience becomes even more essential. Technologies are available to improve coastal resilience, but there must be increases in capacity in the region in order to use these technologies. There is considerable experience in

the Caribbean in ICZM, and countries should continue to collaborate with each other to share best practices. And lastly, governments alone cannot achieve effective ICZM. There must be partnerships with a variety of stakeholders.

Overall, the forum was an example of triangular cooperation, where exchange between developing small islands in the Caribbean was facilitated by support from the IDB. The forum identified areas of further triangular and South-South cooperation, and also the idea for a Caribbean Coastal Capital Center of Excellence. This Center will focus on strengthening national and regional governance in the sustainable management of coastal natural capital and act as a resource for the region. The IDB is also supporting the current discussions on the development of the Center, which is again an example of triangular cooperation that is addressing the needs of the region.

In conclusion, I have four key takeaways as follows:

- ▶ Caribbean countries are already experiencing impacts of climate change and already have experience in addressing these impacts.
- ▶ Further South-South cooperation is needed to facilitate the transfer of information and methodologies between Caribbean countries. This cooperation needs support, including funding, that can be provided through triangular cooperation.
- ▶ There is a need for further sharing of information about how countries are addressing climate change impacts in order to identify opportunities for cooperation.
- ▶ There is also the opportunity to learn and adapt technologies from developed countries to the Caribbean context through triangular cooperation. For example, methodologies from the Netherlands in coastal management can be shared and adapted to the Caribbean context, as was demonstrated in the Caribbean Coastal Resilience Forum.





**Gladys Santis,**  
Climate Change Officer  
of Ministry of the Environment, Chile

I would like to bring on board another experience from Chile, which is called the Latin American Network on Greenhouse Gas Inventories (RedINGEI). RedINGEI has been spearheaded by an excellent team in Chile with wide experience, and has established challenging goals.

This partnership started its concrete cooperation in 2016 and then became the network, including 12 member states in 2018. It has also been supported by UNDP in organizing several key meetings of the partnership.

The first meeting was held in Chile during 2016 and the second meeting in Argentina in 2017. In 2018, UNDP provided full support to maintain a permanent technical coordinator for the network. The third meeting is the next and will be held in Ecuador in October 2018.

The key feature of this partnership is to provide capacity building to participating members. Spanish-speaking countries are necessary to join the partnership, so far; meanwhile, experts are also convened in this way.

The network also established a focal point system with two focal points for each country; Chile is acting as the secretariat of the network. It is expected that during the meeting in Ecuador a new secretariat will be elected and general guidelines for the network will be developed.

Finally, I would like to share a few key initial findings, including

- ▶ Focus on what countries already have and can offer, rather than what countries need;
- ▶ The main challenges for the LAC region (including on resilience, SDGs, disaster reduction, and relief) could be addressed by strengthening cooperation;
- ▶ Funding is always a constraining factor.

## Session 2: South-South and Triangular Cooperation Among Non-State Actors at the Subnational and urban level in the Latin American and the Caribbean Region



Moderated by **Raul O’Ryan**, Director of the Centre for Climate Science and Resilience (CR2), Chile

### Session 2 Overview: South-South and triangular Cooperation among non-state actors at the subnational and urban level in the Latin American and the Caribbean region

This session has been designed in the context that more than 80% percent of the population in LACCW lives in urban areas. Hence, there is great potential and opportunity for those sub-national actors to act on climate actions and cooperation. Particularly, the session intends to present policy and scientific dialogue focusing on how cooperation among non-state actors, in particular at city level, can be enhanced to address climate change and to achieve sustainable development.

This moderated session features a few panel interventions from speakers to address a couple of strategically designed questions, followed by panel discussions and response to potential questions from the audience. Again, the structured questions have been pre-communicated with all panellists, as follows.

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- 1) What are the key research gaps and how could these be best communicated to the city officials?
- 2) How could we ensure that the required governance will generate the financial incentives needed, and how could we involve all sectors (banks, private sector, investors)?
- 3) What are the best ways to receive support from State and National governments and the best communication platforms for this to happen to generate action?
- 4) How are the findings of the IPCC applied at the city level, and what do you foresee as the next steps once the 1.5 degrees report comes out in October?





**Rodrigo de Oliveira Perpétuo,**  
Executive Secretary  
of ICLEI South América

My name is Rodrigo Perpétuo and I am the Executive Secretary for ICLEI South America since November 2016. ICLEI is the leading global network of more than 1,500 cities, towns and regions committed to building a sustainable future. Local and regional governments across the ICLEI network work alongside a diverse team of global experts in 22 offices active across 124 countries.

ICLEI engages at the local to global levels, shaping policy and sparking action to transform urban environments worldwide. We build connections across levels of government, sectors, and stakeholder groups, sparking city-to-city, city-to-region, local-to-global and local-to-national connections. By linking subnational, national, and global actors, policies, commitments and actions, ICLEI strengthens action at all levels, in support of sustainable urban development.

At the subnational level, ICLEI drives change along five interconnected pathways that cut across sectors and jurisdictional boundaries. This design enables local and regional governments to think and design solutions in a holistic and integrated way, creating change across entire urban systems.

Our 5 pathways are:

- ▶ Low emission development pathway
- ▶ Nature-based solutions development pathway
- ▶ Circular development pathway
- ▶ Resilient development pathway
- ▶ Equitable and people-centered development

In regards to international cooperation, ICLEI South America is currently implementing:

Urban LEDS II - Accelerating climate action through the promotion of Urban Low Emission Development Strategies, together with UN-Habitat and supported by the European Commission

EcoLogistics: Low carbon freight for sustainable cities, together with ICLEI World Secretariat, ICLEI South Asia and supported by the IKI/BMU

INTERACT-Bio: Integrated action on biodiversity, together with ICLEI World Secretariat, ICLEI South Asia and ICLEI Africa and supported by the BMU

Local Protected Areas, together with GIZ and IUCN and supported by the IKI/BMU

Global Covenant of Mayors for Climate and Energy, together with major cities' networks and supported by the European Union and Bloomberg Philanthropies

I must say that despite the fact that most of our projects are financed by Developed Countries, we are constantly fostering South-South cooperation, espe-

cially between local governments, which allows us to share a few critical observations on this important modality:

(i) There is a lack of institutional and technical capacity not only at the national, but also and mainly at the local level; (ii) Knowledge gap on the OECD Aid effectiveness principles - from Paris to Busan (<http://www.oecd.org/development/effectiveness/busanpartnership.htm>); (iii) Decentralized Cooperation vs. Multilevel Cooperation; (iv) Need for a multi-stakeholder approach; (v) Lack of institutions to support the implementation.

I would like to comment on each of these points:

**(i) Lack of institutional and technical capacity both at the national and local level**

It would be unfair to compare, for instance, a European cooperation agency such as GIZ with the Brazilian one (ABC), not only in terms of employees, but also in terms of budget and number of projects.

If we are to consider capacities at the local level, it is hard to find a city with an International Relations Department or even one person with this task, except for big cities.

**(ii) OECD Aid effectiveness principles**

To consider international cooperation effectiveness is, somehow, to apply the OECD Aid effectiveness principles (appropriation, harmonization, co-responsibility, accountability). If those are unknown, they cannot be applied and it may reduce the impact on local development.

**(iii) Decentralized Cooperation vs. Multilevel Cooperation**

It is common to find references to decentralized cooperation as the one where local governments take the lead. But it would be probably more appropriate to use the reference “multilevel cooperation,” as complementarity between the levels of governments is needed when localizing the global agendas, such as the SDGs or the Paris Climate Agreement.

**(iv) Multi-stakeholders approach**

It is very important that other stakeholders who play an important role in the territory are involved with the cooperation projects, since they will be responsible for appropriation, and may be scaling up on larger terms to the actions proposed by the projects.

**(v) Lack of institutions to support implementation**

It is common to find Local Governments finding difficulties in implementing international cooperation projects, and searching for external help to do so. To develop this kind of institution in the Global South could help to bring autonomy and to build capacity for local governments with which to engage internationally.

ICLEI South America is currently taking two approaches in order to attempt addressing those challenges. The first one is to foster city-university relations and by doing so fostering local capacity enhancement and further appropriation of the agendas proposed by the projects. The other one is to develop with partners a more precise city-to-city cooperation methodology, which should favor results, capacity building, and therefore local government engagement and commitment with international cooperation, especially South-South. A potential partner for the development of this initiative is Proyecto Al-Las.



**Darío Gómez,**  
Comisión Nacional  
de Energía Atómica, Argentina

During the discussions that our group of scientists, stakeholders and cooperation agencies held in Santiago, Chile in April 2018, aimed at elaborating a collaborative initiative for decarbonization and climate resilient governance in megacities of South America, I indicated that we as researchers in atmospheric chemistry are quite comfortable in “our own research world”. In this regard, we formulate our own questions, which we often claim have some policy relevance; we undertake research activities; produce and share our results, which customarily generate new questions; and the research cycle keeps going on. In many cases we interact with stakeholders; in fact, our research group has an experience of more than 20 years of interaction with decision makers. Occasionally our published results have had direct application to solve real-world problems; however, more often we have done ad hoc work in the form of technical assistance to satisfy the demands of government and industry. What we perceive as most difficult is enhancing our research practice so that stakeholders participate in both formulating research questions and undertaking associated activities. For this opportunity, I chose to share an experience in which we worked under an expanded research framework, which involved stakeholders as well.

This research was triggered by a situation occurring in the city of Bahía Blanca, in the province of Buenos Aires, Argentina. The city has a population of about 300 thousand, a large chemical and petrochemical complex, and an important sea port with a depth of 15 metres.

The environmental impact of industry has been of concern for many years and the province of Buenos Aires established in 2000 a special programme for the preservation and optimization of environmental quality, through the monitoring and control of atmospheric emissions and liquid effluents of industrial origin, being the scope of application the area formed by the petrochemical complex and the port.

By Act 12530, the province delegated environmental control and surveillance to the city, created the Executive Technical Committee (Comité Técnico Ejecutivo, CTE), which was put in charge of the execution of those tasks, being financed through a municipal tax charged to the industry. CTE monitors a large number of environmental parameters, undertakes specific studies, and provides inputs to the city government to take remedial actions, if need be. Air quality records obtained by CTE showed that levels of PM<sub>10</sub> (suspended particulate matter with aerodynamic diameter less than 10 microns) were in many occasions above the air quality standard of 150 microgram per cubic meter for 24-hour concentrations. This was a concern for the city regarding the human health impact associated with these high PM<sub>10</sub> levels, which incidentally falls under sustainable development goal 11: “make

cities and human settlements inclusive, safe, resilient and sustainable.” More specifically, this concerns target 11.6: “by 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management,” and particularly indicator 11.6.2: “annual mean levels of fine particulate matter (e.g. PM<sub>2.5</sub> and PM<sub>10</sub>) in cities”.

This problematic air quality situation was brought to the attention and interest of our research group about six years ago by colleagues of the technical staff of CTE. We had met with them many years before in a multilateral committee that delineated the technical components of an air quality Act. This technical committee was convened by the environmental authority of the province of Buenos Aires.

Our colleagues of the city of Bahía Blanca provided us with all the information they had obtained for more than 10 years, and together with them we formed a team of scientists and stakeholders.

The overall goal of our joint research project was to identify the main PM<sub>10</sub> sources contributing to the determined high concentration levels. We also aimed at distinguishing between regional and local sources and estimating their contribution. This constituted the subject of a PhD thesis, which was successfully defended in late August. Our colleagues of the city of Bahía Blanca not only participated in the formulation of the questions but also in the research activities. Our research group provided physical and chemical determinations of the PM<sub>10</sub> samples collected by the city, analysed surface and remote information and did modelling, more specifically what is known as receptor model analysis. In the end we were able to solve the problem. We distinguished the contribution of three regional sources: dust storms associated with the desertification of the region that surrounds the city; smoke mostly arising from biomass burning and ash arriving to the city from volcanic eruptions in the Andes; and local sources being the remaining contributors. We identified that the regional sources were mostly responsible for the violations of the air quality standard although local sources also have a role, albeit minor, in high PM<sub>10</sub> levels.

This joint project constitutes a good example of co-designing research and co-producing knowledge to characterize an environmental problem of concern for the city and a target of sustainable development goal 11. This problem could be jointly addressed by our research group and our colleagues at CTE because it was exclusively an air chemistry problem. For more complex problems, such as those associated with climate change, the participation of other areas of knowledge and other stakeholders would be needed.

However, we would like to point out that this co-designed applied research was made possible because:

- (i) the Buenos Aires province delegated environmental surveillance and control to the city of Bahía Blanca and provided a meeting place for scientists, stakeholders, and industry during the discussion of the technical aspects of environmental regulation, (ii) the city of Bahía Blanca organized the CTE and supported the activities since its inception, (iii) the availability of funds from CNEA, CONICET, the Ministry of Science of technology of Argentina, and the Universities del Sur and San Martín and (iv) the cooperative dialogue between scientists and stakeholders. If there is no dialog, there is no trust between scientists and stakeholders. It is necessary for us to trust each other.



**Jussara de Lima Carvalho,**  
the International Affairs Advisor  
to the Secretariat for Environment  
(São Paulo State Government), Brazil

I appreciate the organizers for advancing the steps on the co-design of this important project between science and big cities management, which is a very important topic. I am here today with two hats of representation: the São Paulo City and the São Paulo state. São Paulo city has 12 million inhabitants, which is the biggest financial hub of Latin America, and both its GDP and population are the largest in Brazil. Similar to many other Latin American big cities, Sao Paulo has grown without planning, and today faces biggest problems too, like: mobility, water scarcity, main rivers polluted, floods, heat waves, health problems related to air pollution, space segregation, lack of enough infrastructure, and socio-economic inequalities, among others.

São Paulo state has big numbers too. It has good environment policies that are well implemented, but it is not the same with the climate change policy. São Paulo city, as the state of São Paulo, has a climate policy, although not having any national political climate governance and not defining responsibilities in relation of the implementation of national NDC. However, São Paulo state with ICLEI SAMS did the first Talanoa Dialogue in Brazil, pushing the nation to call and to include non-party actors to discuss and to implement the NDC.

To São Paulo city, in relation to GHG emissions, the energy sector that comprises fossil fuels combustion, electricity and natural gas use is the responsible for more than 80% of total emissions, 61% of that comes from the transport use as other big cities in South. Of course, São Paulo has experienced some of the world's innovations, like public bikes, bike lanes and some shared cars (few of them are electric ones).

But these are very few, and they are isolated actions. São Paulo has as a positive point the best universities and research institutes, and much data, but it is not enough. It is fundamental that researchers and managers think together to face the challenges of big cities.

The uncertainties of the climate change models, allied to the lack of technical support, the lack of climate governance, lack of research and strategies to deal with climate change adaptation, limited economic resources and lack of monitoring indicator systems, brings many fragilities to our cities, especially to the big cities. That is why we felt very happy of being invited to participate in this initiative that puts the science with the managers in a multi-actors co-working process, from the very beginning. The questions are many in a research programme that recognizes different levels of answers, different scales of problems, the inherent transversality of climate changes with multi actors' participation.

I think this is the new vision, of co-designing a project. In South-South co-



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operation, putting together science, big cities of South America managers, and multi-actors to solve real problems, this is the biggest issue. São Paulo participates in much SSC, and participates in several networks of cities such as ICLEI and C40. We have good results with those SSC, but it is the first time we put science in the same path of management and civil society inside this project to build South-South cooperation.



**Patricia Himschoot,**  
Climate Change Manager  
of the Buenos Aires  
City Government, Argentina

The interaction between science and policy cannot be underestimated. The first step of a project for science-policy interaction is to identify the problem to be addressed, through understanding the key research gaps, that in Buenos Aires city are related with: number of commuters, transportation emission estimation (vehicles kilometers travel -VKT); carbon absorption by urban forest; mortality and morbidity by heat waves, cardio-respiratory disease, dengue; and soil permeability in relation to the reduction of runoff in heavy rain events and floods.

The primary challenge is that scientists sometimes describe problems that decision-makers do not understand. Therefore co-designing of programmes by working jointly and by using common language is important.

With regard to the governance aspect, the city of Buenos Aires serves as a model of the country, as it has released the Adaptation and Mitigation Climate Change Law that was sanctioned with the objective of establishing actions, tools and strategies to reduce human vulnerability and natural systems, protect its effects and strengthen its benefits. Likewise, it is the stated duty of the Enforcement Authority (Buenos Aires Environmental Protection Agency) to create and coordinate an External Advisory Council, composed of experts in the field, to assist and advise the implementing authority, as well as an Inter-ministerial Team, to develop the Climate Change strategy in a needed trans-disciplinary interaction. Since the Adaptation and Mitigation Climate Change Law was enacted, the Buenos Aires Climate Change Action Plan is checked, adjusted and updated every 5 years.

Besides and in order to make the most of city-to-city interaction, Buenos Aires joined since 2009, the main international networks working with the firm objective of installing local issues and promoting regional and sub-national governments' inclusion in international negotiations.

I would like to emphasize that the city of Buenos Aires commits to become emission neutral by 2050, and it stands committed to implement a more ambitious climate action plan before 2020. In this regard and with the experiences gained in taking actions and in achieving the targets, the city has rich experiences to contribute and to share with others.

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**Michel Carles Tapia,**  
Regional Metropolitan Government  
of Santiago, Chile

As a 100 Resilient Cities member, Santiago de Chile has gained important experience, establishing two important strategies that work together: the Regional Development Strategy and the Resilience Strategy which acts as the Action Plan of the Regional Development Strategy.

In the process of the implementation of the aforesaid strategies and to achieve SDGs, it was unveiled that South-South cooperation opens the opportunity to cooperate with cities sharing similar challenges, where the lack of solid scientific data to improve governance is a common reality.

There are 6 main priorities for the Regional Metropolitan Governance agenda: Urban Mobility, Environment, Security, Natural Risks, Economy, and Equity. They are also overlapping transversally with the concepts of resilience, ethics, and gender equity. Hence, it will be difficult if the key and wider stakeholders are not involved for the entire process. Furthermore, there are a lot of potentials for science-policy exchange and key stakeholders engaging.

South-South cooperation can help to facilitate such participation via mutual sharing and knowledge exchange.

## Session Conclusion

After the prepared interventions, Raul O’Ryan continued to facilitate the session discussion by allowing comments from the audience and questions to the panellists.

Elma Montaña, IAI, echoed the perspectives given by many of the panellists on science-policy linkage and exchange, and stated that IAI is proud of convening a multi-stakeholder group to facilitate such process. She added that the potential of South-South cooperation is important to enable effective implementation of such dialogue.

Following a question raised by IAI Executive Director Marcos Regis da Silva on how to deal with the national political challenge at the subnational level, Carles Tapia (Santiago, Chile) explained the case of Santiago. He explained that Santiago has a Regional Council that is comprised of all political parties, and, allows negotiation among mayors and governors for regional development. He further added that such negotiation and discussion are carried out by relevant political dialogue to enable the consideration and accommodation of various interests from stakeholders. Rodrigo de Oliveira Perpétuo (ICLEI) specifically discussed the need to address the knowledge as on what contribution can be achieved from the local level, in order to engage the national political process. He further stressed the need to recognize that in the NDCs and in the process of establishing NDCs, the national process should integrate local input so as to reduce the big knowledge gap. Patricia Himschoot (Buenos Aires, Argentina) exemplified the participation of the city/state of Buenos Aires in the national process of engaging in GHG inventory. She further added that many policy processes need to integrate local input.

However, Himschoot also frankly stated that the city currently lacks the process of scientific input, and she considered that it might be useful to integrate the local process. Jussara de Lima Carvalho (São Paulo, Brazil) stated that in Brazil, only the national government has the commitment, and such commitment doesn’t recognize the local level engagement. She further explained that there are multiple steps in which local level actors can and should participate, such as the issue of communication, the interface of science to policy, and the middle role to be bridged between technicians and politicians.

## Session 3: The Way Forward—Advancing South-South Cooperation for Effective Implementation of the Paris Agreement and Sustainable Development in the Latin American and the Caribbean Region



**Andrea Camponogara**, TEC Liaison Officer of UNFCCC, moderated the session. He started by briefly introducing UNFCCC TEC, the session concept, and the key questions for discussion during the session.

### Session 3 Overview: The way forward—Advancing SSC for effective implementation of the Paris Agreement and sustainable development in the Latin American and the Caribbean region

Considering the experiences shared in the previous session, this session intends to explore concrete and pragmatic ways to design, finance and implement South-South and Triangular cooperation initiatives— including methodological aspects, as well as relevant instruments and modalities. Speakers have been encouraged

to share their perspectives and insights on how to further advance South-South cooperation, on the road towards the effective implementation of the Paris Agreement and 2030 Agenda for sustainable development.

This moderated session features a few panel interventions from speakers to address a couple of strategically designed questions, followed by panel discussions and response to potential questions from the audience. Again, the structured questions have been pre-communicated with all panellists, as follows.

- 4) How can South-South, triangular, and technological cooperation help countries to tackle climate change and in the efforts to implement the Nationally Determined Contributions (NDCs) and the 2030 Agenda?
- 5) From your organization's perspective, what concrete and practical efforts could be undertaken to enhance cooperation to help countries address climate change and achieve sustainable development?
  - Areas: knowledge sharing, capacity building, technical support, funding mobilization, etc?
  - Design: Specific modalities or instruments?
- 6) How could international and inter-governmental organizations (such as UNOSSC, Technology Mechanism) better support South-South, triangular, and technological cooperation on climate change?





**Ignacio Lorenzo,**  
Director, Climate Change Office,  
Ministry of Housing,  
Territorial Planning  
and the Environment, Uruguay

I would like to reiterate the importance of South-South cooperation. Increasingly in recent years, countries in the South are generating important technology solutions, and hence that SSC is becoming increasingly available and critical. As for the country of Uruguay, there are also more and more such experiences, including the collaborative efforts on GHG inventory. I want to appreciate the efforts on the Latin American Inventory Network, as has been introduced earlier in the workshop, and I also want to highlight the cooperation between Uruguay and Chile on implementation and application on issues related to reporting on GHG. In this collaboration, Chile's expertise is important, and Uruguay also develops its expertise accordingly. Besides, this tool is important for many other countries through knowledge sharing of South-South cooperation.

The second example to share with the audience is on climate adaptation, featuring technical cooperation between Uruguay and Costa Rica with the financial support of Spain on green tourism led by the Tourism Ministry and Environment Ministry of the two countries. This partnership is a highlight of South-South and triangular cooperation and it intends to strengthen efforts on how to implement national planning on tourism and the tourist sector in NDC implementation.

On the governance issue of SSC, Uruguay has established key institutions at the national level, namely the Uruguayan International Cooperation Agency, which has a key role of generating the important summary of experiences and coordinating on international cooperation at the strategic level, particularly when NDC implementation also involves engaging the wider international stakeholders in relation to support. The role of trilateral support and participation of other stakeholders is also critical in the governance of South-South cooperation, and such expanded participation does not and should not increase bureaucracy but engage more stakeholders for greater actions and increased impact.

On the way forward for NDC implementation and South-South cooperation, it needs to be pointed out that most of the NDCs from developing countries have a similar conditionality of action in relation to international support to a certain extent, and they also set out diverse and at the same time similar agendas, often including adaptation and sustainable development, demonstrating the areas of cooperation that make sense and outlining the common situation of developing countries. In Uruguay, we have our strengths—in particular, our research capacity and the knowledge base in agriculture and in mitigation/ad-

aptation. The solutions in the context of the South could also be more relevant to countries in the South.

Finally, I want to conclude by emphasizing that it is important to stress on what is strategic and on generating a solid agenda for action.





**Pedro Borges,**  
Research Associate, Ecosystems  
and Global Change Lab,  
Venezuelan Institute for Scientific  
Research (IVIC), Venezuela, and  
UNFCCC Technology Executive  
Committee Member

South-South cooperation (SSC) cannot be seen in isolation, but as part of a continuum that includes triangular cooperation (TrC) and North-South cooperation. There are a great variety of arrangements and roles to play in this continuum; the goal must be to match each particular case with the most appropriated available option. SSC and TrC have the advantage of being generally more efficient, adaptable and sustainable in the long run, due to the common difficulties, opportunities, backgrounds, and other elements shared among many developing countries. It can also strengthen solidarity networks in the Global South that increase resilience and foster culturally appropriate and nationally determined ways of sustainable development, while addressing climate change.

Protecting and incorporating local and indigenous knowledge and technologies is one key area to foster SSC and TrC. Technology cooperation should not only focus on “high tech” options, but on a wide range of technologies, including knowledge systems and practices integrated in sociocultural contexts that, despite cultural differences, share significant elements in different countries and regions in the south.

It is important to foster endogenous technological capacities in developing countries in order to strengthen sustainable development and resilience. SSC and TrC can be instrumental in this sense. Technologies often need to be combined, modified, or adapted to local contexts, so all barriers to do that (legal, cultural, technical and economic) must be addressed. Intellectual property rights, for example, should not be interpreted or implemented in a way that limits the capacities of developing countries to address climate change, including the liberty to modify or adapt technologies when necessary.

To promote SSC and TrC, it is crucial to increase funding, foster information sharing and develop straightforward and flexible modalities and procedures that take into consideration its intrinsic diversity and complexity. This diversity should not be constrained, for it is one of the strengths of SSC and TrC.

The UNFCCC Technology Executive Committee (TEC) is currently working on a report on SSC and TrC with several case studies, key messages and recommendations. It will be available soon and will be presented during the upcoming COP24 in Katowice.



**Raul O’Ryan,**  
Director of the Centre for Climate  
Science and Resilience (CR2) Chile

It is my pleasure to share the experience of Mitigation Action Plans and Scenarios Programme (MAPS), which was first developed in South Africa and later shared to four countries in Latin America. This cooperation helped generate future emissions scenarios and mitigation options in each of the countries that in the case of Chile served to define its intended nationally determined contributions (INDC). Credible, legitimate and relevant knowledge was generated in the form of modelled scenarios. Key components of the methodology were engaging multiple stakeholders and that the knowledge was shared widely with participants. This common knowledge and expertise allowed the prevention of political change (government reshuffle).

In order to be successful for its replication, the following characteristics are very necessary:

- ▶ It must adopt a country-driven process and use an open box approach;
- ▶ It is needed to generate a community of practice, through intentionally developing a culture of knowledge sharing;
- ▶ It should also be a professional facilitation process, which gives all participants a sense of belonging.

On moving forward and advancing SSC, there are multiple “stubborn” realities and specific national contexts in Latin America. In each country there are different and many times contradictory positions relating to the purpose and priorities of each policy.

Consequently, different approaches are needed in order to encourage cooperation. Hence, flexibility is needed; many of the previous speakers in the workshop also shared this opinion. To improve conflict management related to these various positions, co-production of knowledge is very important. Sharing these experiences through SSC is needed to learn from other countries with similar realities.

At the stage of implementation, time is needed to implement projects and budget is key to enable action. Hence, greater continuity of policy and predictability of funding is critical. I also want to highlight a few other crucial factors, including political mandate, humility (i.e. experiences rather than “best practices”), and ample participation by wider stakeholders and at different decision-making levels.

To conclude and to respond to the question on the role of IGOs, I think that UN entities and other relevant IGOs have a key role to gather international experiences and support the sharing of them, which could be the focus of the UN and other IGOs to promote the knowledge of Southern countries.



**Kathya Fajardo,**  
Agriculture and Climate Change  
Specialist of the Inter-American  
Institute for Cooperation  
on Agriculture (IICA)

In the context of implementation to achieve SDGs and national priorities, SSC on agriculture is critical for sustainable development and for countries in the LAC region. There are numerous areas for developing countries to cooperate in order to accelerate effective action. Though the sector's potential contributions to the solutions for climate change have increased the visibility of agriculture in the international arena, more work is needed to ensure that sufficient resources are channelled to the sector.

Regarding key factors to advance SSC, I would like to stress the importance of synergy among stakeholders, especially between those from the agriculture and environment sectors, as well as adequate funding support. To answer an earlier question about working with the national level processes, I can highlight the experience of the System of Rice Intensification (SRI), which promotes resource efficiency and sustainability in production and consumption operations, as well as in the supply chains of rice around the globe. A new network in Latin America is using a stakeholder driven participatory approach and being coordinated by IICA, a hemispheric institution with has strong institutional capacity and experiences working across multiple countries. This enables the Institute to effectively and continuously promote South-South exchange and engage a wide range of actors throughout the entire process, from design and planning to implementation and monitoring. The sharing of successes and challenges has also been carried out in an interactive process to enable its continued improvement of the innovation. Even for countries with more years of experience, this exchange is useful for identifying new ideas and improving their actions.

I would also like to share the experiences of IICA in promoting triangular cooperation in Central and South America on another topic—namely on climate change adaptation planning. IICA has worked to promote sustained exchange on how countries are actually designing, developing and implementing these plans. Based on the Institute's experiences, several good practices include multi-sector coordination, linking to broader sustainable development processes, strengthening capacities, engaging academics and the private sector, and reducing mitigation and adaptation costs by capitalizing on synergies between the two.

To conclude on opportunities for IGOs, a few specific recommendations are to:

- ▶ Identify points of convergence and key actors in specific topics,
- ▶ Promote cooperation both within and across sectors,
- ▶ Identify and mobilize funds and technical resources to support countries, and
- ▶ Adapt technologies and processes to local needs and contexts.

## Summary

With the entry-into-force of the Paris Agreement under the UNFCCC, countries are moving progressively towards getting ready for its effective implementation. In the meantime, the United Nations system and United Nations Member States seek to put in place more integrated and coherent approaches to implement their Nationally Determined Contributions (NDCs), contributing towards the achievement of the goals of the Paris Agreement and the Sustainable Development Goals (SDGs) of the 2030 Agenda.

In the context of supporting developing countries' nationally-determined actions to address climate change and achieve sustainable development, the role of South-South and triangular cooperation becomes more important. However, the opportunities offered by these types of cooperation remain to be fully exploited. South-South cooperation, including technological cooperation for climate adaptation and mitigation activities, plays a key complementary role to that of North-South cooperation in ensuring that resources, skills, and capacities are provided and developed to enable developing countries to achieve their sustainable development goals and implement the Paris Agreement.

It is in this context that the United Nations Office for South-South Cooperation (UNOSSC), in partnership with the Technology Executive Committee (TEC) of UNFCCC and the Inter-American Institute for Global Change Research (IAI), convened the third workshop in 2018 on 20 August during the Latin American and Caribbean Climate Week (20-23 August) in Montevideo, Uruguay.

The workshop convened more than 10 Member States and cities, 5 international organizations, and many entities in the Latin American and Caribbean region to:

- ▶ Enhance the understanding and the awareness of the potential of South-south cooperation and triangular cooperation in the Asia-Pacific region;
- ▶ Gain insight on how to make full use of the critical and complementary role of South-South cooperation and triangular cooperation to overcome shared challenges and accelerate progress towards sustainable development and implementation of the Paris Agreement; and
- ▶ Provide space for the exchange of experiences among countries with a view to initiating or scaling up South-South cooperation initiatives.

Session I of the workshop presented success stories of South-South and triangular cooperation, including technological cooperation, discussed relevant lessons learned and potential for replicability, and explored concrete and practical ways forward to enhance South-south and triangular cooperation to combat climate change and to achieve sustainable development.

Session II of the workshop presented policy and conducted scientific dialogue, focusing on how cooperation among non-state actors, in particular at city level, can be enhanced to address climate change and to achieve sustainable development.

Session III of the workshop took into account the experiences shared in the previous sessions and explored concrete and pragmatic ways to design, finance and implement South-South and Triangular cooperation initiatives in the Latin American and Caribbean region. These included methodological aspects, as well as relevant instruments and modalities that could be used.

Discussions recognized low carbon development, climate adaptation and resilience as important issues for the Latin American and the Caribbean region. The re-

gion has already accumulated rich experiences and examples of successful climate solutions through South-South, triangular, and technological cooperation, based on common circumstances.

However, there are challenges at the technical, economic and institutional level. Funding is a constraining factor for enhanced SSC, and the funding support to local stakeholders to promote SSC is even less. Many of the existing efforts are undertaken with third party support, such as those from a developed country partner or from international organizations, in the modality of trilateral cooperation.

But there are also opportunities to coordinate among various alliances and engage with the wider stakeholder groups, including academic, private sector, and civil society groups, as well as sub-national governments. Particularly, the contributions from the local level on climate actions should be acknowledged and the knowledge gap should be addressed. Meanwhile, sub-national entities should also strengthen effective institutions to support SSC and to build capacities.

A few ideas that were raised suggested that SSC should include complementary flows of financial support, complementing those such as the Green Climate Fund, Global Environment Facility, and bilateral efforts from developed countries

The opportunities for IGOs to promote SSC include identifying points of convergence and key actors; promoting cooperation beyond and across sectors; identifying and mobilizing funds and technical resources; and supporting the adaptation of technologies to local needs and contexts.

Therefore, SSC could also play a critical and complementary role in sharing the knowledge and in scaling mitigation and adaptation climate technologies in developing countries, thereby contributing to the implementation of the Paris Agreement and the Nationally Determined Contributions of developing countries.

## Post-Face

With the growing urgency and consequences posed by climate change, there are increasing calls globally for urgent and ambitious climate actions. The developing countries are at the front line of climate-related impacts and are already taking strong actions. In that process, they have gained and are still gaining experiences in addressing climate change, along with their growing capacities and resources with which to take actions. International cooperation is critical to support developing countries to address climate change, and in particular to enhance the capacities of the global South to head towards a low carbon, climate-resilient and sustainable future. In the fast few years, more and more developing countries are demonstrating interest in taking cooperative climate actions, including the sharing of knowledge, experiences, capacities and resources to address climate change, in the framework of sustainable development and their national priorities.

Technical cooperation among developing countries, widely known as South-South cooperation (SSC) now, is solidly rooted in the mindset of the global South. Guided by its core principles, namely respect for national sovereignty, national ownership and independence, equality, non-conditionality, non-interference in domestic affairs, and mutual benefit, SSC has contributed to Southern progress and, in the evolving global context, continues to have great potential to contribute to developing countries' national well-being, their national and collective self-reliance, and the attainment of internationally agreed development goals, including the 2030 Agenda for Sustainable Development, as well as the Paris Agreement on climate change. Most importantly, SSC manifests the solidarity among peoples and countries of the South. It plays an important and complimentary role in international development cooperation, rather than being a substitute for traditional North-South cooperation.

The United Nations has been a long-standing, close and trusted partner with developing countries in the proliferation of SSC. In 2016, under the leadership of the Secretary-General and supported by many Member States and the wider stakeholders, the Southern Climate Partnership Incubator (SCPI, hosted by UNOSSC) was initiated to promote South-South cooperation on climate change. Now, UNOSSC is substantially supporting the United Nations system to implement the South-South Cooperation Action Plan, as an integral part of the Secretary-General's Climate Change Engagement Strategy (2017-2021). Under the mandate of the Action Plan and as an effort to support regional engagement and advocacy on climate change, UNOSSC has convened the SSC workshop during the 2018 Asia-Pacific Climate Week (APCW) in Singapore, Singapore and Latin American and Caribbean Climate Week (LACCCW) in Montevideo, Uruguay.

The workshop included Member States, UN entities and other IGOs, sub-national actors, and wider civil society groups who were invited to present their experiences on South-South and triangular cooperation, including technological cooperation. They discussed relevant lessons learned and potentials for replication, and explored concrete and practical ways forward to enhance South-South and triangular cooperation to combat climate change and to achieve sustainable development. The meeting successfully engaged relevant stakeholders from developing countries in the Asia and the Pacific and Latin American and the Caribbean region to enhance their understanding, awareness, and support on South-South climate cooperation, and to share experiences and to exchange insights on ways of moving forward.

Participants highlighted the growing capacities in the South and the huge potentials of SSC to contribute to the implementation of the Paris Agreement and the delivery of developing countries' Nationally Determined Contributions (NDCs). They also suggested on-going and future SSC efforts to be built upon these existing foundations while continuing to strengthen capacities in developing countries and continuing to strengthen information sharing to bridge the knowledge gap. In this regard, many participants recognized the efforts and the role that the United Nations system and other Inter-Governmental Organizations could play to facilitate and support.

Scientific research and science-policy interaction, agriculture, tourism and environment, technology exchange and cooperation, as well as a few other climate change related sustainable development areas were recommended as areas of further cooperation. Participants also stressed the need to overcome barriers and the need for support, including funding opportunities that could be provided through triangular cooperation and/or through enhanced mobilization of Southern stakeholders. Meanwhile, experts widely agreed that SSC provides an opportunity to bring multiple stakeholders together, as has been demonstrated by the active participation in the Asia and the Pacific region and Latin American and the Caribbean region, including subnational actors, in developing effective and sustainable projects to drive environment and climate progress and to achieve sustainable development. Such engagement has the potential to contribute to strengthened stakeholder endorsement for national decision-making and to contribute to enhanced ambitions and actions of the South on climate change.

## Annexes

Agenda of Asia-Pacific Climate Week, Friday 13 July 2018, Singapore

<p>09:00 – 09:30</p>	<p><b>Opening Remarks</b></p> <p>Tomasz Chruszczow - High Level Climate Champion, Poland</p> <p>Patricia Espinosa - Executive Secretary, United Nations Framework Convention on Climate Change (video message)</p> <p>Jorge Chediek - Secretary-General's Envoy on South-South Cooperation and Director, United Nations Office for South-South Cooperation (video message)</p>
<p>09:30 – 11:15</p>	<p><b>Keynote Speeches</b></p> <p>Youba Sokona, Vice-Chair of the Intergovernmental Panel on Climate Change (IPCC) and Special Advisor on Sustainable Development, The South Centre</p> <p>Dinara Gershinkova - Vice-Chair, UNFCCC Technology Executive Committee (TEC)</p> <p><b>Session I: Experiences, opportunities and challenges of South-South and triangular Cooperation in the Asia Pacific region</b></p> <p>Moderator: Xiaohua Zhang, Manager, Climate and Sustainability Programme, United Nations Office for South-South Cooperation, Chief, Southern Climate Partnership Incubator</p> <p>Presenters:</p> <ul style="list-style-type: none"> <li>▶ Indonesia's South-South cooperation experiences in the context of ASEAN Nur Masripatin - Special Advisor to the Minister of Environment and Forestry/National Focal Point of UNFCCC, Indonesia</li> <li>▶ Thailand's experiences Surachai Sathitkunararat – Assistant Secretary General, National Science Technology Innovation Policy Office, Thailand</li> <li>▶ Singapore's experiences Mitchel Lee - Deputy Director of Technical Cooperation Directorate, Ministry of Foreign Affairs, Singapore</li> <li>▶ Triangular cooperation in the Pacific Alysha Bagasra - Policy Officer, Climate Change, Ministry of Foreign Affairs and Trade, New Zealand, and Technology Executive Committee Member</li> <li>▶ Pacific's experiences Solomone Fifita - Manager, Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE)</li> </ul> <p>Questions and answers with all participants</p>



**PART II:**  
 WORKSHOP ON  
 SOUTH-SOUTH AND  
 TECHNOLOGICAL  
 COOPERATION FOR  
 CLIMATE ACTION  
 AND SUSTAINABLE  
 DEVELOPMENT

11:15 – 11:45	<b>Break</b>
11:45 – 12:30	<p><b>Session II: A look forward - Advancing South-South cooperation for effective implementation of the Paris Agreement and sustainable development</b></p> <p>Moderator: Ariesta Ningrum, Team Leader, Technology Policy and Strategy Unit, Finance, Technology and Capacity Building (FTC) Programme, UNFCCC Secretariat</p> <p><b>Key Discussant</b></p> <ul style="list-style-type: none"> <li>▶ Rob Bradley - Director, Knowledge and Learning, NDC Partnership Support Unit</li> </ul> <p><b>Panel discussion on potential of SSC/TrC/technological cooperation from various perspectives</b></p> <ul style="list-style-type: none"> <li>▶ Shahid Kamal - Special Advisor, Commission on Science and Technology for Sustainable Development in the South (COMSATS), Islamabad, Pakistan</li> <li>▶ Ina Islam - Deputy Director, International Centre for Climate Change and Development (ICCCAD), IUB, Bangladesh,</li> <li>▶ Rima Al-Azar - Global Climate Governance Coordinator, Climate Change and Environment Division, Food and Agriculture Organization of the United Nations (FAO)</li> <li>▶ Mareer Husny - Assistant Director, Ministry of Environment and Energy, Maldives, and Technology Executive Committee member</li> <li>▶ Natarika Wayuparb Nittiphon - Deputy Executive Director, Thailand Greenhouse Gas Management Organization, Thailand</li> </ul>
12:30 – 12:45	<p><b>Closing Remarks</b>          UNOSSC/TEC</p>

Agenda of Latin American and the Caribbean Climate Week, August 2018, Montevideo, Uruguay

09:00 - 09:30	<p><b>Opening Remarks</b></p> <ul style="list-style-type: none"> <li>▶ Jorge Rucks, Deputy Minister, Ministry of Housing, Territorial Planning and Environment, National Directorate of the Environment, Uruguay</li> <li>▶ Manuel Pulgar-Vidal, Former Minister of Environment, Peru, and COP20 President; Leader of Climate and Energy Practice, WWF</li> <li>▶ Marcos Regis da Silva, Executive Director, Inter-American Institute for Global Change Research</li> <li>▶ Patricia Espinosa, Executive Secretary, United Nations Framework Convention on Climate Change (video message)</li> <li>▶ Jorge Chediek, Secretary-General's Envoy on South-South Cooperation and Director, United Nations Office for South-South Cooperation (video message)</li> </ul>
09:30 - 10:30	<p><b>Introductory Presentation</b></p> <ul style="list-style-type: none"> <li>▶ United Nations Office for South-South Cooperation</li> </ul> <p><b>Session I: Experiences, opportunities and challenges of South-South and triangular Cooperation in the Latin American and Caribbean region</b></p> <p>Moderator: Mariama Williams, Senior Programme Officer, Global Governance for Development Programme, The South Centre</p> <p>Presenters</p> <ul style="list-style-type: none"> <li>▶ Mariano Jordan, Director for Innovation and Cooperation, Ministry of Science, Technology and Productive Innovation, Argentina</li> <li>▶ Adelle Thomas, Scientific Advisor, University of The Bahamas/Climate Analytics, and UNFCCC Technology Executive Committee Member</li> <li>▶ Carlos Cecil Fuller, International and Regional Liaison Officer, Office of the Executive Director, Caribbean Community Climate Change Center</li> <li>▶ Gladys Santis, Climate Change Officer and Chile Focal Point to the IAI, Division of Climate Change, Ministry of the Environment, Chile</li> </ul>
10:30 - 10:40	<p><b>Coffee break</b></p>

**PART II:**  
WORKSHOP ON  
SOUTH-SOUTH AND  
TECHNOLOGICAL  
COOPERATION FOR  
CLIMATE ACTION  
AND SUSTAINABLE  
DEVELOPMENT

10:40 – 11:40	<p><b>Session II: South-South and Triangular Cooperation among non-state actors at the subnational and urban level in the Latin American and Caribbean region</b></p> <p>Moderator: Raul O’Ryan, Director, Centre for Climate Science and Resilience (CR2) Chile</p> <p>Panellists</p> <ul style="list-style-type: none"> <li>▶ Rodrigo de Oliveira Perpétuo, Executive Secretary, ICLEI South América</li> <li>▶ Dario Gomez, Scientist, National Atomic Energy Commission, Argentina</li> <li>▶ Jussara de Lima Carvalho, International Affairs Advisor, Secretariat for Environment, São Paulo State Government</li> <li>▶ Patricia Himschoot, Manager, Climate Change, Buenos Aires City Government</li> <li>▶ Michel Carles Tapia, Regional Metropolitan Government of Santiago</li> </ul>
11:40 – 12:40	<p><b>Session III: The way forward - Advancing SSC for effective implementation of the Paris Agreement and sustainable development in the Latin American and Caribbean region</b></p> <p>Moderator: Andrea Camponogara, TEC Liaison Officer, Technology Sub-Programme, Finance, Technology and Capacity Building (FTC) Programme, United Nations Convention on Climate Change secretariat</p> <p>Presenters</p> <ul style="list-style-type: none"> <li>▶ Manuel Pulgar-Vidal, Former Minister of Environment, Peru, and COP20 President; Leader of Climate and Energy Practice, WWF</li> <li>▶ Ignacio Lorenzo, Director Climate Change Office, Ministry of Housing, Territorial Planning and the Environment, Uruguay</li> <li>▶ Pedro Borges, Research Associate, Ecosystems and Global Change Lab, Venezuelan Institute for Scientific Research (IVIC), Venezuela, and UNFCCC Technology Executive Committee Member</li> <li>▶ Raul O’Ryan, Director, Centre for Climate Science and Resilience (CR2), Chile</li> <li>▶ Kathya Fajardo, Agriculture and Climate Change Specialist, Inter-American Institute for Cooperation on Agriculture</li> </ul>
12:40 – 12:45	<p><b>Wrap up and closing</b> UNOSSC/IAI/TEC</p>

Power-Point Presentations made by the participants of the APCW and LACCW can be downloaded from <https://www.unsouthsouth.org/apcwlaccw/>

