

Energy Action Day

Session 5b: Energy Efficiency - Making the Energy Transition Possible

Speaker transcript [www.youtube.com/watch?v=ctJi1_eIN6I]

H.E. Minister Dr Jeanne d' Arc Mujawamariya, Ministry of Environment, Rwanda

Question: *Rwanda's capital is the namesake of the Kigali Amendment to the Montreal Protocol and a champion of fast action on efficient, climate-friendly cooling. The first developing economy to adopt a National Cooling Strategy, Rwanda is now also home to the Africa Centre of Excellence for Sustainable Cooling and Cold-Chain.*

What are the Government of Rwanda's ongoing efforts to foster energy efficiency improvements in the country and more broadly in Africa? How are you going from the goals set in Rwanda's National Cooling Strategy and NDC to concrete action?

[5:12:02 – 5:16:18]

Thank you very much. Good evening, everybody.

To this question, as a dedicated member state of the United Nations, the African Union, and the East Africa Community, we are always pleased to work alongside fellow countries to go faster and farther together than we can go alone.

Sustainable development is not possible if one ignores the environment, particularly as this shared planet is interconnected when it comes to the air, water, and ozone layer.

Rwanda's Nationally Determined Contribution recognizes our unique responsibilities and therefore it includes ambitious targets.

Similarly, our award-winning National Cooling Strategy from 2019 offers a holistic approach to sustainably meeting growing demand for refrigeration, space conditioning and other cooling needs.

What matters is action, not simply announcing plans and targets. I am pleased to share that execution of the Cooling Strategy is underway at an accelerated pace.

For example, in collaboration with UNEP's United for Efficiency(U4E) and other partners, we are firstly, hosting the landmark Africa Centre of Excellence for Sustainable Cooling and Cold Chain (ACES) with its headquarters in Kigali and plans for associated Living Laboratories in rural communities throughout Africa that accelerate the deployment of the latest technologies and best practices.

Secondly, implementing Minimum Energy Performance Standards, energy labels, and an online licensing system for monitoring the importation of room air conditioners and refrigerators to ensure they meet our criteria, which entail the most ambitious requirements on the continent of Africa.

Third, developing a voluntary, market-based financing scheme with local banks for consumers to access high performance cooling appliances and recycle existing cooling products.

Promoting sustainable cooling through a comprehensive awareness campaign and capacity building for technicians, customs officers and others on the trade of ozone depleting substances, safety, energy efficiency, and other aspects.

Of course, in Rwanda, we will continue to share lessons learned and look forward to additional supporters, and to meet new supporters that may be interested in joining such efforts because this work is inter-linked and interconnected. We have to share experience; we have to work together.

Thank you very much.

Malick Ndiyae, Chief Executive Officer, Banque Agricole Senegal

Question: *Effective financing and financial support are key to incentivize consumers in choosing efficient and sustainable energy products. Banks have an important role to play. In Senegal and Ghana, there is a project underway called "ECOFRIDGES" for an innovative financing mechanism to support consumers in the purchase of energy-efficient and climate friendly refrigerators and air conditioners.*

What is financial mechanism that is being used in ECOFRIDGES Senegal? How is Banque Agricole Senegal participating in these efforts?

[5:17:24 - 5:23:09]

In Senegal, with Ghana, we develop and pilot the ECOFRIDGES project, implemented by an innovative financial mechanism to support consumers to install energy-efficient products including climate-friendly refrigerators and air conditioners. The experience of La Banque Agricole of Senegal and its contribution to this innovative project will be discussed following two questions: What is financial mechanism that is being used by ECOFRIDGES? What is La Banque Agricole's contribution to reducing emissions by financing ECOFRIDGES?

About the mechanism. I just can say that ECOFRIDGES funding mechanism was launched in Senegal by UNEP United for Efficiency, in partnership with the Government DECC, one branch of our national Ministry of Environment, SENELEC, the national electricity company, AEME, the national agency for saving energy, and La Banque Agricole. This programme included also equipment manufacturers, like Electronic Corp and SENFROID here in Senegal to ensure access to energy-efficient equipment. ECOFRIDGES by promoting refrigerator equipment that consumes little energy and is efficient and respects the environment. The objective of this programme is to facilitate replacement on the market of second-hand refrigerator equipment by more efficient equipment to reduce energy demand and extent of production of greenhouse gas. Energy-efficient and environmentally friendly refrigerators and air conditioning will be widely available and more affordable for users through a flexible financing system and LBA, La Banque Agricole, is the partner bank for a financing mechanism to facilitate access to refrigerators and air conditioners for household through green, free credit repayable through WOYOFAL tops ups from SENELEC. WOYOFAL is a national market access to electricity services developed by SENELEC.

La Banque Agricole plays a lead role in demonstrating the commercial viability of an innovative mechanism that is acceptable to Senegalese households. Such win-win action and the involvement of the private sector are essential for sustainable development in Senegal. [Participating suppliers] Electronic Corp and SENFROID undertake to offer a substantial discount which will be the basis to cover part of the LBA interest rate charge and to give consumers a voucher of a certain value for their next purchase in exchange for replacing used, but still operational, refrigerators or air conditioners with one from the ECOFRIDGES programme. They will benefit from the sale, installation and maintenance of the equipment. SENELEC, the national electricity supply company, through its WOYOFAL digital recharging pre-paid system (this is a pre-paid model where you pay for your consumption before you use the electricity) will play an important role in the ECOFRIDGES programme. This system will collect loan repayment from households and SENELEC pays monthly to La Banque Agricole the amount recovered from applicants who have benefited from a loan. ECOFRIDGES is only available to WOYOFAL customers of SENELEC.

This is very important because we expect by 2024, for example, to reach about 20,000 customers to get refrigerators and air conditioners, and to save around 40,000 MW, representing a 1.3 billion CFA saving for the economy of Senegal.

This is the model we have developed for ECOFRIDGES and we are very fond to share, and this is very innovative, and one very strong partnership will be built and we continue to look at next steps.

Thank you.

Thol H.E. Dr Pen Sophal, Secretary of State, Ministry of Land Management, Urban Planning, and Construction, Cambodia

Question: *Construction is a major pillar of Cambodia's economy, with a boom in residential and commercial construction. In 2017, estimates suggested the sector was responsible for 9% of the national GDP. At the same time, buildings are responsible for 45% of the country's primary energy demand and are also an increasing contributor to GHG emissions. Buildings' energy consumption is expected to more than double by 2040. The sector therefore faces "lock-in" risk for a high carbon and energy development path.*

What is the government doing to address buildings' energy demand growth and emissions increase in the country? How do these efforts support the government goals for energy management and sustainable economic development?

[5:24:33 - 5:28:40]

It is midnight here in Cambodia. Welcome...

The Royal Government of Cambodia has made a definitive commitment to tackling climate change and a reduction in national greenhouse gas emission footprint. We are a committed signatory to United Nations Framework Convention on Climate Change and the 2030 agenda for sustainable development. In response the Government have mainstreamed its commitment into its National Development Framework, including the Rectangular Strategy, NSDP [The National Strategic Development Plan] and the Cambodia Sustainable Development Goal. Second, sector responsible ministries, like the Ministry of Land Management, Urban Planning and Construction have, and are, integrated responsible measures into their sector strategies, including developing a range of priority actions and adopting a measurable NDC roadmap for buildings and construction 2020-2050 for Cambodian and climate resilient buildings construction practices. We need to achieve a balance between regulatory approach and guidance to integrate and support low energy consumption throughout the construction sector.

We are also developing a project for consideration of lifecycle energy consumption for buildings. For this we are cooperating with development partners, the private sector and academic and profession capacity, firstly to support energy efficiency development improvement in, and for, the land management and construction sector. In terms of development and construction, the Ministry of Land Management, Urban Planning and Construction has approved roughly 52,500 construction projects up to 2020, with an investment of at least 59 billion in the economy. These construction projects have created 100 job opportunities, including many [...]. Construction investment has been recognised as being one of the pillars of Cambodian economic transition and development. Now we need to refine construction projects to better consider their energy lifecycle, starting at the design phase. I would disagree that we are locked into high energy consumption. We are aware that construction has been a high energy consumer, but we have the ability to change this issue and we also have political commitment from our Royal Government of Cambodia to do so.

Thank you.

Kudakwashe Ndhlukula, Executive Director of the SADC Centre for Renewable Energy and Energy Efficiency

Question: *Market transformation towards better and efficient energy solutions are possible. National policies, incentives and standards can drive the adoption of sustainable technologies, but regional policy harmonization and robust enforcement are also needed so that a common and transparent market is available for companies and consumers.*

What activities are underway in Southern Africa in terms of harmonisation of appliance efficiency and how are different national, regional and international experts supporting efforts?

[5:29:47 - 5:34:02]

Thank you so much...

SACREEE's mandate is to implement Sustainable Development Goal 7 to promote market adoption of renewable energy and energy efficiency to address low energy access and improve security of energy supply, which seem to be a perennial challenge with the 16 member countries of the SADC region.

The last two years have been difficult years for the people and the planet, as you all know. The COVID 19 pandemic has affected lives worldwide. At the same time, the heating of our planet and climate disruption has continued apace. More than ever, we need sustainable solutions to tackle the climate crisis and achieve sustainable development. At SACREEE, we are convinced that energy efficiency is one of the most effective ways to reduce electricity consumption, improve energy security and mitigate climate change, with the potential to decouple economic growth from its environmental impacts. Using inefficient products leaves less money for residents, businesses and governments to spend on other priorities, and causes unnecessary air pollution and strains on the electricity grids.

So, a key tool to transforming a market to energy-efficient products are minimum energy performance standards (so called MEPS). Therefore, the East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE), which is based in Uganda, Kampala and ourselves, SACREEE, and the United Nations Environment Programme's (UNEP) United for Efficiency (U4E) initiative have decided to collaborate to develop harmonized MEPS for both regions.

The project, which is funded by the Global Environment Facility (GEF); UK's Department of Environment, Food and Rural Affairs (DEFRA), and the Clean Cooling Collaborative (formerly – Kigali Cooling Efficiency Program), is focussing on two of the most energy consuming cooling products, which are room air conditioners and residential refrigerators. The project is currently drafting the minimum energy performance standards which will phase out the inefficient products and leapfrog the region directly to efficient and climate-friendly cooling while also resulting in significant benefits for the population to give a more stable grid and reduce the electricity use, in addition to that, levelling helps also consumers to make well informed changes

Another project of great importance in the region is the Energy Efficient Lighting and Appliances Project which aims to support the development of a market for energy efficient lighting and appliances across East and Southern Africa. This project's approach is to provide market incentives for the private sector to deliver efficient and high-quality energy services, to adopt minimum energy performance standards for appliances which are harmonised in the region, to build capacity for regulator for appliance testing and enforcement, as well as awareness raising on the benefits of adopting energy efficient technologies for the stakeholder. This project was implemented by SACREEE, our counterparts in East Africa EACREEE and coordinated by UNIDO with financial support from the Government of Sweden through SIDA.

Thank you so much.

Jennifer Anderson, Vice President, Strategy, Business Development & Chief Sustainability Officer, Carrier

Question: *Industry has a critical role in developing and bringing to market more sustainable products.*

What are Carrier's ongoing efforts to encourage uptake of the highest efficient cooling products in the market? How can we encourage businesses such as Carrier to join international initiatives such as the Climate Group's EP100 initiative and the Cool Coalition to accelerate the deployment of efficient climate-friendly cooling products?

[5:34:46 – 5:37:38]

This is a question of critical importance for Carrier and we're pleased to be here today to discuss with you all. Carrier has traditionally been thought of as an HVAC company, but today we are a leading global provider of healthy, safe, sustainable and intelligent building and cold chain solutions. As we have heard today, on average, building can be responsible for as much as 40% of a country's energy consumption, and heating and cooling, technologies that Carrier provide, can be responsible for 40% of a building's energy usage. At Carrier we are committed to tackling this global challenge and are focussed on driving enhanced sustainability and energy efficient solutions through three key areas of focus - first, building products; second, building systems; third, refrigerated transport.

So, let's start with building products. We're proud to highlight that over the last four decades we've improved the efficiency of our large building and air conditioning chillers by 15% per decade, and we plan for this progress to continue through 2030. For example, one of our chillers, the screw chiller, is 42% more efficient than the industry standard.

Second, we're focussed on driving better efficiency through better building systems. Research has found that installing building automation systems could cut commercial building energy consumption by nearly a third. This is why we've launched offerings like Abound. Abound enables building owners to leverage data to reduce energy consumption. It is a smart platform, designed to help give people confidence in the health and safety of their indoor spaces, and it allows building professionals to see data clearly, resolve issues quickly and optimise building performance of their buildings.

And we continue to introduce innovative refrigerated transport technologies. Reducing transportation food loss is also an important component of climate solutions. If food waste were a country, it would be the third largest emitter of greenhouse gases. The majority of food waste occurs when travelling from farms – food to fork. Carrier has introduced products that address this challenge head on. We recently launched our FRESH2 refrigeration units with hydrogen fuel cell technology for temperature-controlled road transport semi-trailers. These are used primarily to transport fresh and frozen food products, pharmaceuticals, including vaccines, and all other heat-sensitive goods.

The hydrogen fuel cell technology replaces the diesel engine in these units. This eliminates direct carbon dioxide, nitrogen oxide and particulate emissions from our technologies. We are also working with several developing economies in Asia, India and Africa to continue to advocate for cold chain development. We are actively looking at opportunities that seek to reduce post-harvest losses.

So, in summary, Carrier is committed to being the market leader in healthy, safe, sustainable and intelligent solutions.

Thank you.

Thol H.E. Dr Pen Sophal, Secretary of State, Ministry of Land Management, Urban Planning, and Construction, Cambodia

Question: *Building on Cambodia's building decarbonization roadmap, what support would you need from your peers and other energy sector stakeholders to drive energy efficiency improvements in Cambodia's buildings and construction sector?*

[5:38:09 – 5:40:57]

Thank you for your question.

Methodology for assessing the construction sector footprint for energy efficiency has been developed globally in building codes [list of codes] and we need to learn and adapt in a way to develop a harmonised Cambodian national building energy emission approach. The national approach will need to be robust enough to enable quantifying and qualifying energy consumption in buildings from their design, through construction, embedded energy and final use, so that their energy consumption certificate can apply. So, need support from the private sector who are the driver of development in construction, in terms of their willingness and ability to adapt to new processes and pressure to incorporate new efficiency materials and change. Our development partners need to assist in developing technical capacity and competitiveness for national building energy and decarbonising efficiency system. We also need political support to facilitate more rapid adaption for the necessary legal and regulatory framework. The technical profession – architects, engineers, planners, surveyors, etc.– to be willing to incorporate the need for greater energy efficiency in all aspects of construction, land management and urban planning. We also see the role for academia and civil society and people. Consumer behaviour needs to change through informed decision making on energy use in buildings. This comes through better education and understanding.

H.E. Minister Dr Jeanne d' Arc Mujawamariya, Ministry of Environment, Rwanda

Question: *How can your peers and other energy sector stakeholders support the drive to energy efficiency improvements in the work that Rwanda is undertaking?*

[5:41:20 – 5:44:28]

Thank you very much.

Consider joining the Africa Centre of Excellence for Sustainable Cooling and Cold Chain as a partner. The Rwandan Government, UNEP's United for Efficiency, Rwandan and the UK universities, and the UK Government came together to establish the Centre, and we are eager to expand with additional expert contributors.

In the next year we will be bringing online our pan-Africa research, innovation and knowledge hub at ACES's headquarters, hosted at an entire campus which was recently allocated to the Centre by the University of Rwanda. It will house state-of-the-art equipment and facilities, enabled in part by grant support from the UK Government and industry contributions.

Also, considering joining us in building-out the network of ACES Living Laboratories specializing in priority value chains for rural communities located in strategic sites around the continent.

Similarly, considering adopting similar energy efficiency and refrigerant policies for cooling appliances so that we can have a harmonized approach in the region. This will make compliance smoother for manufacturers and enable greater economies of scale for superior cooling products, resulting in more affordable options for consumers and coordinated enforcement opportunities by officials.

We are pleased to be on a good pathway with fellow East African countries. However, as I noted at the outset, the critical step after a solid roadmap and targets is implementation. Additional donor support will be needed so that these countries of East Africa can make good on the solid plans that we are preparing.

I thank you very much for the question.

Kudakwashe Ndhlukula, Executive Director, SADC Centre for Renewable Energy and Energy Efficiency

Question: *What would you recommend to other regions and countries getting started on regional efforts? What can they learn from the achievements in Southern Africa?*

[5:44:46]

Thank you so much for the question.

Today, many of old lighting bulbs, air conditioners and refrigerators, transformers and motors use unnecessary large amounts of electricity. These five products are key as they use over 50% of the world's energy. These products have a very strong demand growth in developing countries and at the same time a large technological potential – thus these five appliances have a huge potential to decrease electricity consumption while boosting economic growth. With energy-efficient room air conditioners and residential refrigerators alone the Southern African region could save 9.4 TWh annually in 2040, which is equivalent to four large powerplants, while also saving consumers over 760 million annually on their electricity bills and 6.8 million tonnes of carbon dioxide.

One of the most effective regional measures is the harmonisation of policies, which is what the project targets. Harmonisations of policies amongst countries at a regional level has a much larger impact than having different policies within one region. Moreover, harmonized minimum energy performance standards across regions are key as they leverage the effect of the policies by reducing amongst other barriers to trade and enable businesses to cut costs. In addition, best practices and lessons learned can be shared among the countries on national implementation.

Regional collaborations play an important role in implementing effective measures to improve access to energy, improve energy security and supply, and fight climate change. These collaborations are close to citizens and unify at the same time large populations. So, in conclusion, implementing measures at the regional level have a multiple effect on the ground.

Malick Ndiyaë, Chief Executive Officer, Banque Agricole Senegal

Question: *What would you recommend to banks that have yet to finance energy efficiency projects? What can they learn from Banque Agricole Senegal's participation in the ECOFRIDGES project?*

[5:47:09 – 5:51:19]

Thank you very much for your questions.

To respond, I think that it is very interesting for the banks to participate in this kind of programme on energy efficiency because now that here in Senegal the framework policy a mixed energy – meaning that we use fuel effectively. Most of our electricity comes from fuel. Because we are a developing country, we have a big demand of energy and we are fortunately getting better and better energy from [etholic – 5:48] – for example solar energy; we are building some project in solar energy, and also in wind energy. This is very, very interesting in Senegal and you know that we are expecting for next year's petrol and gas and we are trying to build our machine to be able to use gas and oil and it's very important for Senegal. But what we learn from ECOFRIDGES and ECOWAS is that the banks are unfortunately not very fond to invest in the green sector. La Banque Agricole is only the first bank in Senegal which is accredited with the GCF, Green Climate Fund, last year. And we are direct access entity, and we are the only bank which is already able to give to the population green products, and that's why we are very committed to be in such programmes, such pilots. We try to understand how we can diversify our product and how we can develop some innovative products to the population because this kind of model is very important. At the same time, we are working, for example, in solar irrigation with GGGI and other partners, in terms of irrigation in the rural section, is very important using solar energy for example. And what we learned is that it is very important for this job any time we are any time in contact with more partners and we build strong partnerships, for example, for ECOFRIDGES and other programme, for example, and we have also innovative products, attractive to people, to be trying to use ICT for managing better mechanism and process.

This is also very important and, at the end of the day, we must give response to answer the needs of the population and I think that banks maybe they have to learn to quickly get on the train to go in the green aspect and, at the same time, we are implementing, for example, for the regulator some social and environmental risk, and this is also an aspect very important that the bank must learn if they try to come with us in the next step.

Thank you very much.

Jennifer Anderson, Vice President, Strategy, Business Development & Chief Sustainability Officer, Carrier

Question: *What are Carrier's plans to further accelerate energy efficiency efforts? What steps will you take to align with the Paris Agreement and the achievement of net-zero by 2050?*

[5:51:35 – 5:53:57]

Thank you for the question.

Addressing climate change is a central focus of our sustainability strategy and sustainability is a key tenet of Carrier's growth strategy. We have set ambitious targets and have recently announced 2030 environment, social and governance goals. We are tackling the SDG goals in two ways – planet and communities. We have committed to help our customers avoid more than 1 giga tonne in greenhouse gases through 2030. One example of how we're doing this is our eco-energy business, where we have saved our customers over 3.6 billion kWh of energy. We have also committed to invest \$2 billion in research and development for sustainable design. This is for products that are energy efficient, intelligent and provide lower global warming potential with refrigerant technologies. We are also making investments within our own operations. We are committed to achieving carbon and water neutral operation by 2030 and reducing our energy consumption by 10%. We have also committed to developing science-based targets, with the Science Based Targets initiative, that is, we are developing climate change goals for both our own operation and our products to align with the goals of the Paris Agreement. We recognise that these are unprecedented challenges ahead of us that will require an equally unprecedented response. From a product perspective, we've introduced over 100 new products every year since 2015. Our engineering team is focussed on key strategic themes aligned with Carrier's growth strategy – sustainability, service and digital solutions. We participate in early-stage innovation with start ups, universities, innovation hubs and thought leaders, and we are also working to expand our service offerings to include sustainability as a service for our customers. Like ourselves, companies around the world are looking to reduce their environmental footprint. We have the unique expertise, products and services to help on that journey. Within our own local communities, we are partnering with leading non-profits, like The Nature Conservancy, that supports global projects to make the cities of tomorrow resilient, healthy and equitable. And we are also designing an online learning curriculum to promote science-based solutions.

Thank you for the question.

Closing question: In one sentence, what would you say to your peers to inspire them to take ambitious action on energy efficiency?

Jennifer Anderson

[5:54:21 – 5:55:05]

The urgency of climate change requires us to be bold, to innovate, to disturb, and most importantly, to collaborate. Our industry represents 15% of global greenhouse gas emissions and we need to work together to address the challenge. Insurance has a critical role to play. From supporting the clean energy transition, to fostering the move to low energy GWP refrigerants. But the most effective change is going to come from a holistic approach that brings together industry, Government, and end users, and one that considers improved infrastructure and incentives to drive further adoption. Carrier lives at the interface of these different stakeholders, and we are committed to advancing global progress towards sustainability.



Malick Ndiyae

[5:55:08 – 5:56:10]

As you say, I think energy is critical for the development and also, we cannot use energy as we like. Still, we are damaging the humanity and to me that we have at the end of the strategy, for all the national strategies, to be able to link our effort to contribute to efficiency in energy. It is very important that solutions we have in our context in our environment that we collaborate. Each entity –Government and private sector—we have to imagine what kind of solutions we can implement together to save our environment and to be able to use energy in the development aspect.

Kudakwashe Ndhlukula

[5:56:18 – 5:56:46]

Thank you. The rise in the energy demand unfortunately comes mostly in hand with a rise in greenhouse gas emissions and a large impact on the environment so we must act now. But we must never forget and leave behind the majority of our society without access to clean and secure modern supply whatever we are doing in climate change mitigation efforts. Thank you.

Jeanne d' Arc Mujawamariya

[5:56:53 – 5:59:59]

Thank you very much. It was a great pleasure for me to be with you today to explore how to create collective action towards net zero and climate resilient energy systems, while promoting decarbonisation to meet the 1.5°C threshold. Under the Kigali Amendment, countries are committing to improving energy efficiency of cooling equipment and reducing the production and consumption of HFCs by more than 80% over the next 30 years. Getting cooling right is a critical component to enabling our economy to grow sustainably with complete and vast market. The Government of Rwanda adopted that at the beginning. The Government is partnering with different partners to make sure that we meet the target. A few highlights at the end of this meeting today. Development of a financing scheme for energy-efficient and climate-friendly cooling products to address the first-cost barrier, and to incentivise consumers to recycle outdated existing appliance, should be a must. Cooling is complex and cuts across agriculture, health and industry sector. It needs to be addressed comprehensively and continuously. In Sub-Saharan Africa almost half of the food produced is lost, to the detriment of farmers, malnourished consumers and the environment. This fundamental challenge will be highlighted in Rwanda's National Cooling Strategy as one of the key areas to address. Over the last years, the Government of Rwanda and its partners has launched and operationalised the centre for cooling. The centre is headquartered in Kigali, as I told you, and now Rwanda is focussed on delivering concrete results and we will come for collaborator. We have to work together, and we will continue to welcome different supporters with high ambition on energy transition action to help meet the nations development targets, while fulfilling obligations under the Kigali Amendment to the Montreal Protocol and the Paris Climate Agreement, among others. Let us work together now. Let us go to action and walk the talk.

Pen Sophal

[6:00:02 – 6:06:44]

Thank you, excellency, lady and gentlemen. First of all today I would like to express my gratitude. Thanks to our Government, and our policymakers who appoint me to join this event. This event is very special and important, and I also would like to say thanks to the organisers of this event – UNEP, IRENA, Denmark and World Economic Forum, for organising the event and for providing this opportunity.

While Cambodia is considered a small emitter of greenhouse gases at the global level, our country has always been committed to minimise and reducing even these emissions, with action to do so is written into the Government Rectangular Strategy and the National Strategic Development Plan and the Cambodian Sustainable Development Goal Framework. Prior to the global COVID 19 pandemic, Cambodia has sustained impressive economic growth in excess of 7% per year for two decades. This prolonged growth, sustainable conditions to significant power reduction transform our economy, resulting in rapid urbanisation with all the benefits and challenges hat will bring. Our urban population has more than doubled from 19% in 2008 to 39% in 2019. Cambodia has graduated from a low-income country to a lower-middle income country in 2015 and plan for a high-middle income by 2030, while Cambodia aims to be a high-income country by 2050. This achievement and planned development growth doesn't come without challenges. Our energy consumption has increased across all sectors and urgent action is needed to meet the gain and to reduce it, with the Government committed to making it. In 2020, Cambodia submitted an updated Nationally Determined Contribution to the Secretariat of the Framework Convention on Climate Changes. This commits the Government to reduce greenhouse gas emissions by at least 65 million tonnes of carbon dioxide equivalent by 2030, a 42% reduction to business user scenario by 2030. The Cambodian updated Nationally Determined Contribution identifies 86 priority actions, including nine priority actions to be led and coordinated by the Ministry of Land Management, Urban Planning and Construction. Recently, the Ministry has been developing and NDC Roadmap for low carbon, climate resilient building and construction to prioritise action, including developing adaptive special planning tools, guidelines for all level integrating energy incentives to respond to the impact of changing land use, ongoing urbanisation and coastal management, development and construction, identity and develop a project opportunity centered on the potential to align energy efficiency as part of building construction, building retrofit and urban planning by developing building energy code to guide development. Has been working and pushing on smart cities/green cities development, implemented through the establishment of a master plan in cooperation with development partners, private sector on smart city development implementation, including the capital of Cambodia and cities, through the ASEAN Smart Cities Network, SmartGen and others, actively participating the other Ministries of the Royal Government of Cambodia with a very high commitment to achieve an NDC and its working very hard on the development and pushing for approval on national energy efficiency policy by 2021-2030. As can be seen, we have set ourselves an emission energy efficiency, carbon emissions, and climate change mitigation agenda which requires continuous consideration and adoption and learning from global, regional and national experience. We also need to develop our young population capacity and competency to deliver on the emission agenda. To achieve this, Cambodia is committed to cooperating and working with other nations, development partners, the private sector, and all stakeholders to improve national and sectoral energy efficiency to tackle climate change that impacts us all. I would like to thank UNEP and partners for hosting this forum and my thanks go also to the organisers and participants here, many of whom are already cooperating to build a more resilient, sustainable and carbon neutral future.