TWENTY-FIFTH REGULAR SESSION OF THE CEC COUNCIL 26–27 June 2018 Oklahoma City, Oklahoma, United States

2018 CEC COUNCIL PUBLIC SESSION - SUMMARY RECORD

Item 5- Welcoming remarks and introduction of video on CEC's accomplishments by the Executive Director

César Rafael Chávez, Executive Director of the Commission for Environmental Cooperation (CEC), opened the Council Session public meeting by extending a warm welcome to all attendees and by describing this year's theme: how governments can work collaboratively with the private sector, academia, civil society, youth and indigenous populations to support and promote innovation and partnerships for green growth across North America.

Mr. Chávez welcomed to the stage CEC's Alternate Representatives: Jane Nishida, Principal Deputy Assistant Administrator at the US Environmental Protection Agency; Isabelle Bérard, Assistant Deputy Minister of International Affairs at Environment and Climate Change Canada; and Enrique Lendo Fuentes, Head of International Affairs at the *Secretaría de Medio Ambiente y Recursos Naturales* (Semarnat). He then introduced a video featuring key CEC projects and accomplishments in the areas of green growth and ecosystems under the CEC's 2017–2018 Operational Plan, including promoting sustainable of trade in CITES species, reducing pollution from maritime transport, measuring and mitigating food loss and waste, strengthening adaptive capacity of marine protected areas, and sharing beneficial management practices across North American grasslands.

Item 6- Remarks by Council members on Innovation and Partnerships for Green Growth

Jane Nishida welcomed and thanked all members of the public for attending the forum, and highlighted the importance to the Council of seeing strong public engagement and transparency in advancing collaboration on environmental protection. Ms. Nishida provided examples of ongoing national efforts to promote innovation and partnerships related to green growth and new challenges. She noted that the US EPA has been collaborating with the public, academia, and the private sector in developing technological innovation clusters that are producing new, cost-effective technologies and creating jobs, and this has reduced their environmental footprint while supporting energy development, technology and innovation. She also highlighted the role of EPA's successful Small Businesses Innovation Research Program in commercializing novel environmental technologies. Ms. Nishida reiterated the importance of involving citizens and developing ways to share their knowledge in addressing emerging environmental challenges and, in that connection, she mentioned the importance of the Local Environmental Observer Network (which the CEC helped initiate), a successful partnership across North America and the Arctic that applies traditional ecological knowledge to document locally observed changes in our environment. She also noted collaborative efforts, including some through the CEC, that measure and mitigate food waste and loss, reduce marine litter and plastics in shared watersheds, and EPA efforts to transform contaminated land into areas of economic development and growth. Ms. Nishida concluded by reiterating EPA's commitment to collaborating with her North American colleagues to encourage agency partnerships and foster innovation and said she is looking forward to a rich dialogue with her counterparts from Mexico and Canada and the experts in attendance.

Isabelle Bérard began her remarks in French, thanking Administrator Scott Pruitt for arranging their visit to the Oklahoma City National Memorial and noted that the well-coordinated response by first responders

and government agencies during the tragedy can, by analogy, demonstrate the importance of strong cooperation to achieve successful results. Ms. Bérard continued in English to emphasize that the CEC has been playing a unique role for cooperation in North America over the last 24 years. She mentioned that Canada understands that clean energy and a strong economy go hand-in-hand and that trinational environmental cooperation in North America remains relevant to the competitiveness of our economies, the protection of our environment, and the well-being of our citizens. Ms. Bérard added that she was delighted to be focusing this Council meeting on innovation and partnerships for green growth and excited about the three new initiatives announced earlier in the day by Administrator Pruitt that will advance trilateral partnership and innovation for green growth and preparedness and resilience to extreme heat events in North America. She mentioned the importance of clean tech to grow economies and increase their environmental sustainability. She reaffirmed Canada's commitment to working together with governments at all levels, the public, academia, indigenous communities and businesses to transition to a low carbon economy, tackle climate change, and find effective solutions for environmental sustainability and to advance prosperity, and concluded that she looks forward to hearing from the public during the meeting.

Enrique Lendo Fuentes welcomed the public and congratulated the US government for choosing innovation and partnership for green growth as a theme for this Council session, since this is one of the most important topics in Mexico and its approach to reach environmental challenges. He stressed the importance of setting clear environmental goals at a national and global level in order to develop incentives and have a clear path for innovation, and he mentioned the examples of the international commitments that set clear targets for climate change and mercury reductions. Mr. Lendo Fuentes reaffirmed Mexico's strong commitment for the outcomes of this meeting and to working with the business sector to promote innovation. He highlighted several of Mexico's ongoing and future initiatives, such as investment in environmental science and technology, environmental mitigation incentives for Mexican entrepreneurs through the *Instituto Nacional del Emprendedor*, a tax on carbon, and the creation of a carbon market by 2020. He also mentioned the importance of youth to foster innovation and their engagement through the CEC Youth Innovation Challenge. In closing, Mr. Lendo Fuentes reiterated that innovation and partnership for green growth is a fundamental theme for the future of the environmental agenda in North American and a significant contributor in the drive to reach the ambitious goals set by current international agreements.

Item 7- Dialogue with the Council on Innovation and Partnerships for Green Growth

Gustavo Alanís-Ortega, JPAC Chair, introduced and welcomed three panel experts on stage to join the Council in a dialogue on innovation and partnerships for green growth: Tom Wavering, Executive Director of the Tom Love Innovation Hub at Oklahoma University; William Scott, Research Associate at Smart Prosperity Institute in Ottawa; and Luis Carlos Romo Salazar, Commissioner for Ecology and Sustainable Development of the State of Sonora. Mr. Alanís-Ortega asked the panel to answer the following three questions: How are each of your countries/institutions promoting or supporting innovation and partnerships for green growth? Give examples of successful public-private partnerships? What are the concrete results/outcomes from these partnerships that have advanced green growth?

Isabelle Bérard provided an overview of Canada's Pan-Canadian Framework on Clean Growth and Climate Change, which is a framework developed in consultation with the provinces, territories and indigenous peoples to bring together the actions that will help Canada reach its targets established in the Paris Agreement, grow the economy, and build resilience to a changing climate. Which of these actions include incentives for green growth technology development and adoption?

Jane Nishida highlighted the Energy Star program as a successful partnership with both the public and the private sector for reducing energy footprint. She also mentioned the Safer Choice program, which

provides information that helps consumers find products that are safer for human health and the environment. She concluded by mentioning the involvement of the private and academic sector experts in evaluating the 2018 Youth Innovation Challenge submissions, in a way to expand CEC's dialogue with private sector and academia.

Luis Carlos Romo Salazar presented the state of Sonora's Green Growth Strategy, which was developed with support from Semarnat and the Global Green Growth Institute. He explained that the Strategy provides a framework for Sonora to collaborate with national and international public and private sectors, academia, and nongovernmental organizations from across all sectors to achieve the objectives and targets of the Strategy.

Enrique Lendo Fuentes explained that innovation and green growth are closely related. Innovation is not only technological advancement, but also improves the way governments, businesses, academia, and others can work together to achieve green growth. He stressed the importance of strong environmental public policy and frameworks, such as Sonora's Green Growth Strategy, that engage decision makers from the private sector to explore win-win strategies to reduce environmental impacts and generate wealth and prosperity across all sectors. He then cited a few success examples from Mexico.

William Scott provided current market projections for clean technology and resources and energy efficiency that illustrate how innovation for green growth not only represents a critical opportunity for economic growth but also helps us achieve our global environmental targets. He noted that clean innovation faces two fundamental market failures: knowledge spillover and environmental externality. Although investors and inventors provide the engine for innovation, governments must help to overcome these market failures by developing a system of stringent and flexible environmental regulations and policies that can lower research and development costs and risks and increase demand for cleaner products. He provided the example of Rio Tinto and Alcan's zero-carbon aluminum smelting technology, which will be commercialized in Canada because of government support and carbon pricing.

Tom Wavering commented that one central theme to all previous comments was the need for a holistic approach to innovation, and mentioned the United States' Small Business Innovation Research program, a 2.5 billion dollar program that provides financial support for innovation to small businesses every year. This support gives small companies the extra time they need to generate revenue and develop the value proposition they can use to find investors and ultimately grow toward the market they are trying to serve.

Gustavo Alanís-Ortega asked the panel to share their perspective on three follow-up questions: What has made these partnerships successful and how can these success models be replicated or scaled up in other geographical areas or sectors? What are the opportunities/challenges to implementing and sustaining these partnerships over the short and long terms? How can the CEC play a more active role in promoting innovation and partnerships for green growth on a local, regional or global scale?

Luis Carlos Romo Salazar responded that Sonora's Green Growth Strategy provides an open platform that all stakeholders can use to collaborate on and implement the various actions of the Strategy and that the process for developing the Strategy had involved representatives from all sectors of society, not only the government. He noted that these two factors are contributing to the success of the Strategy, but that one of the challenges is to give all participating organizations and the general population a sense of ownership of the Strategy and its goals.

Isabelle Bérard mentioned that as part of Canada's Pan-Canadian Framework (PCF) on Clean Growth and Climate Change, her government works very closely with civil society, including indigenous peoples, and stresses the importance of being ambitious, flexible and inclusive to successfully incorporate the views of various segments of society.

William Scott added that one initiative of the PCF is to develop sector strategy tables, where governmental departments and leaders from various sectors are working together to make the regulatory framework leaner and more agile, to allow innovation to happen without businesses becoming less competitive. This kind of collaboration and streamlining of policies, he added, can help build innovative frameworks.

Jane Nishida said that the United Stated also agrees with providing an inclusive, flexible and adaptable platform to promote partnership and innovation. But these opportunities need to be made more visible and accessible to indigenous communities, which are often small and located in remote areas. She congratulated the Tom Love Innovation Hub for providing such great opportunity openly and for free.

Tom Wavering explained that the Tom Love Innovation Hub is part of the University of Oklahoma and provides resources for people from diverse backgrounds and perspectives to develop ideas that look at innovation across all university disciplines, which is both a challenge and also a great opportunity. He felt that bringing together university partners from Canada and Mexico and their expertise on sustainability is a great way to accelerate and scale-up innovation and green growth beyond the United States.

Enrique Lendo Fuentes closed the session by reiterating that governments need to be ambitious but also set clear targets in order to give the market a clear signal and encourage private sector actors to participate in this transition with support from the government. He pointed out that estimated global costs to reach international environmental targets amount to between 4 and 5.5 trillion dollars per year, which is equivalent to the combined Gross Domestic Product of Mexico, Brazil, Indonesia and India. Since it is unlikely that governments alone can invest such a vast sum, they must develop innovative and flexible incentives, partnerships, and political processes.

Item 7.3- Moderated Q&A with registered participants

Gustavo Alanís-Ortega opened the floor to questions from the public. The first question was: How can better advantage be taken of the fact that several corporations already have innovative approaches and their own sustainable mandates, which they apply in all three countries?

William Scott noted that this was indeed a great opportunity for large international companies to accelerate innovation through their supply chains, to take the lead globally and drive some of these standards and opportunities around the world. Jane Nishida added that this was also a great opportunity for collaboration in the areas of resource efficiency, circular economy, and sustainable materials management. Isabelle Bérard noted that this was as well an opportunity for each government to remain open and engaged with companies that are reaching out to other governments. Enrique Lendo Fuentes pointed out that through NAFTA, North American supply chains have become increasingly integrated and are making great progress toward better environmental and corporate social responsibility. He added that open markets, competitiveness, and the sharing of best practices can support the environment. Finally, Tom Wavering mentioned that holistic policies would likely also help small companies in achieving greater sustainability, since they are usually unable to achieve high levels of environmental performance as easily as larger corporations.

Gustavo Alanís-Ortega asked Luis Carlos Romo Salazar the following question: In Sonora, how do you work with indigenous communities?

Mr. Romo Salazar mentioned that the four objectives of the state of Sonora are decarbonization, inclusive and innovative economy, responsible use of material and natural resources, and quality of life resilient to climate change. One of the actions tied to these objectives is to engage with indigenous communities to

develop productive activities and sustainable development. As an example of this action, he mentioned a program to train women to maintain photovoltaic panels themselves, thereby creating economic opportunities and social inclusion.

Gustavo Alanís-Ortega concluded the session and thanked the experts for their participation in the dialogue on innovation and partnerships for green growth.

Item 8- Youth Innovation Challenge (YIC)

César Rafael Chávez provided a description of CEC's Youth Innovation Challenge, in which North American youth were asked to submit innovative solutions for improving both the environment and the economy in North America. The Challenge received over 200 submissions and nine semifinalists were asked to develop their ideas into full proposals. Mr. Chávez introduced the three winning teams and asked them to join the Council members onstage: Lauren Smith and Nicole Balliston from Canada for their project "Stop eating your dirty laundry - Our solution to microplastic pollution"; César Asensy Maldonado Monter, José Luis Ortiz Robles and Héctor José Garrido Rosales from Mexico for their project "Management of wastewater and organic waste with the use of insects"; and Nima ShahabShahmir from the United States for "Future Fungi - An environmental solution to plastic issue."

César Rafael Chávez announced that each winning team will receive \$5,000 Canadian dollars, and asked Tom Wavering, Executive Director of the Tom Love Innovation Hub at the University of Oklahoma, to describe the university's Innovation Hub and the business challenge event that took place at the Hub earlier in the day.

Tom Wavering mentioned that the Tom Love Innovation Hub is honored to be involved in the CEC's Youth Innovation Challenge and congratulated the young innovators for their great ideas and stories. He explained that the role of the Innovation Hub is to provide resources that students and others need to bring their ideas to reality. Through an holistic approach, the Hub provides an open space, a legal clinic, development labs and an array of additional resources to students and the public, and does ongoing outreach to remote communities. Mr. Wavering said that he was pleased to have hosted experts from Canadian and Mexican universities and to have worked with various experts, professors and the Challenge winners on strengthening their ideas. Mr. Wavering invited a representative from each winning team to come onstage to present their team's project.

Lauren Smith represented PolyGone Technologies, which develops products that capture microfibers found in synthetic fabric to prevent their accumulation in the environment, where they enter the food chain. PolyGone's filters and sheets can be used in washing machines or customized for other applications, including wastewater treatment, drinking water filtration, beverage processing, or aquaculture. Given that governments have started to move on this issue and that industry is looking for solutions, PolyGone Technologies is well positioned to provide that support.

César Asensy Maldonado Monter presented CPlantae, a wastewater and organic waste treatment technology that uses worms to decompose organic material into compost. His technology does not produce methane and other unsustainable byproducts and is aligned with several sustainable development goals, including clean water and sanitation and responsible consumption and production. A patent is pending for CPlantae, which has already been successfully replicated in four Mexican states and is 50% cheaper than the competition.

Nima ShahabShahmir presented Future Fungi, a mushroom-based product that can be shaped into various shapes and used as an alternative to plastics. This biodegradable product is lightweight, shock absorbent, fire- and waterproof. Future Fungi has received a provisional patent and has successfully created first-

stage prototypes of eco-friendly packing peanuts, cups/planting pots and panels using fungi mycelium combined with natural waste products (e.g., sawdust or wood chips).

After the three presentations, each Council representative commented on the projects and shared their ideas on how innovation hubs can help advance innovation and green growth by cultivating the next generation of leaders and innovators.

Isabelle Bérard congratulated the three winners for their great ideas, enthusiasm and interest in protecting the environment. Jane Nishida said that she was impressed with the ideas that each winner shared and emphasized that their innovative ideas to address marine plastics and wastewater treatment issues will be useful to the governments. Finally Enrique Lendo Fuentes mentioned that he was very encouraged by these ideas, and said that Minister Pachiano, who is a strong supporter of youth engagement, would also be very pleased with these projects. He emphasized the key role of young people to bring about a better world, and to convert good ideas into business opportunities. He proposed continued support for projects like these in the future and that this idea (youth innovation green growth challenges) should be passed along to other governments as a great way to support innovation and partnership for green growth.

Item 9- Council Announcements

Jane Nishida presented four new initiatives that the CEC will take on. The first initiative is the creation of a North American network of innovation hubs, which will bring together leading North American universities to promote academic innovation programs and entrepreneurship for green growth, provide resources and tools to design innovative products and concepts, and advance CEC projects with critical expertise. A second initiative is the creation of a North American extreme events advisory group and a partnership for building North American resilience to extreme events. This initiative will bring together North American experts to identify and share interdisciplinary research, forecasts and responses to such extreme events as drought, wild fires, and extreme temperatures, and build upon opportunities for the three countries to share and advance preparedness and response capabilities to extreme events. A third initiative is a partnership on mapping North American extreme events on CEC's North American Environmental Atlas and analyze the impacts of these events on the North American environment. This initiative will create new layers for the Atlas, provide information to help decision makers and local communities to prepare for, adapt to, and improve resilience to extreme events. Finally, the fourth initiative is the North American atlas on traditional ecological knowledge (TEK) that will be guided by the indigenous TEK experts group and will strengthen engagement with experts and communities associated with TEK, document examples of past CEC engagement with such communities, and identify relevant frameworks in the three countries for voluntary engagement with indigenous and local communities. Jane Nishida concluded her remarks by thanking all the partners, on behalf of the Council, for their support in making the announcement of these initiatives possible.

The three Council members moved to the signature table and signed the Council Statement.

Item 10- Closing remarks by Canada

Isabelle Bérard thanked her US and Mexican counterparts, the public, the Joint Public Advisory Committee and the TEK members for this productive meeting,. She said she looks forward to working with Enrique Endo Fuentes this year, as Mexico takes over the CEC chairmanship. She also thanked the Secretariat and the General Standing Committee (GSC) for preparing the session, and looks forward to continue working with the CEC in the future.

Item 11- Concluding remarks and Passing the Baton by the United States

Jane Nishida thanked Isabelle Bérard and Enrique Lendo Fuentes, on behalf of the United States. She also thanked the JPAC, the US National Advisory Committee and the US Governmental Advisory Committee for providing advice that has enhanced the work of the CEC. She also thanked the roster of TEK experts, who have recommended the TEK atlas initiative. Lastly, she thanked the Secretariat and the General Standing Committee for their support. As her closing words on behalf of the US chairmanship of the CEC this year, she pointed out that the Parties have demonstrated that challenges can be turned into opportunities for green growth, as seen with the Youth Innovation Challenge, the Tom Love Innovation Hub, and the interactions with all the partners in this room. During her visit to the Oklahoma City National Memorial, she learned of the State's strength, resilience and endurance, and hopes that the CEC remains strong and that North American cooperation and partnership continues forward. With these comments, Jane Nishida turned over the chairmanship to Mexico.

Item 12- Closing remarks by Mexico

Enrique Lendo Fuentes mentioned that this was an intense meeting, rich in information and history about the region. He extended a thank you to Administration Pruitt, Jane Nishida, Isabelle Bérard, the JPAC members and the GSC for the successful meeting, its results, and their commitments for the future. He mentioned that the location of next year's Council Session will be announced after the Mexican elections, and that he already looks forward to a great meeting in Mexico in 2019.