

MEMORANDUM OF UNDERSTANDING TO REDUCE THE RISKS OF CLIMATE CHANGE BETWEEN THE GOVERNMENTS OF THE TERRITORY OF THE UNITED STATES VIRGIN ISLANDS AND THE COMMONWEALTH OF PUERTO RICO, AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

I. Purpose and Parties

The purpose of this Memorandum of Understanding (MOU) is to formally establish a mutually beneficial working relationship between the Government of the Territory of the United States Virgin Islands (USVI), the Government of the Commonwealth of Puerto Rico (PR), and the United States Environmental Protection Agency, Region 2 (EPA), collectively known as the "PARTIES," to develop, implement, promote and carry out cooperative activities related to reducing carbon pollution and promoting climate change resilience in PR and USVI. The MOU will promote education, capacity building, sustainability and the design of policies for the development of actions to address the challenges presented by climate change.

II. Background

As the frequency of intense storms increases, sea levels rise, land subsides and the planet becomes warmer, islands and their cities are becoming more vulnerable. Weather extremes, prolonged dry days, damage to coral reefs, and salt water intrusion threaten the economic vitality and habitability of islands worldwide. Dealing with these challenges and adapting to climate change have become an imperative.

Tropical islands are uniquely vulnerable areas that will suffer from the adverse effects of climate change. Addressing this threat requires the development and implementation of adaptation measures and carbon reduction efforts at every level of government.

While tropical storms have been the primary climate-related risk factor for generations in the Caribbean, more recently, a persistent drought and sargasso accumulation along populated coastal areas are among the severe ecological stresses that threaten coastal societies and their economic livelihood. Recent climate variations and individual extreme events demonstrate both the impacts of climate-related stresses and the vulnerabilities of exposed systems. Many climate stresses that carry risk (including sea level rise, tropical storms, increasing air and sea surface temperatures, and changing rainfall patterns) are expected to increase in frequency and/or severity in the Caribbean region in the coming decades.

Adaptation to and mitigation of climate change generates greater benefits when delivered in conjunction with other development activities, such as disaster risk reduction and community-based approaches to development, and/or ensuring that long-term capital planning and investments are protective in a changing climate.

The circumstances and factors summarized above illustrate the need for a better understanding of how climate change affects the islands of the USVI and PR and for the identification of processes, methods and tools that may help these islands reduce carbon pollution and develop greater adaptive capacity to become more resilient to the ongoing and projected changes in climate.

On October 16, 2015, Hon. Governor Kenneth Mapp of USVI signed Executive Order No. 474-2015 aiming to prepare the territory of the USVI for the impacts of climate change. The order provides for the commencement of a territorial climate change initiative, establishes the U.S. Virgin Islands Climate Change Council and facilitates close cooperation with the federal government, the V.I. government, the private sector and the community. In Puerto Rico, Hon. Governor Garcia Padilla has signed five executive orders¹ designed to promote sustainable development strategies, initiatives and programs.

This MOU is an interdisciplinary tool that will foster the mobilization of expertise of the PARTIES and the undertaking of research and/or other projects relating to climate change in the islands of the USVI and PR. This MOU will focus on collaborative opportunities of the PARTIES to reduce greenhouse gas emissions and foster resilience and the regional capacity to adapt to climate change. The activities of the PARTIES under this MOU, however, are not meant to replace the work being done by these organizations individually.

III. Understanding and Commitments

The PARTIES are hereby establishing a working relationship and identifying areas of collaboration to implement climate change mitigation and adaptation strategies in the islands of the USVI and PR.

The PARTIES intend to cooperate and coordinate efforts, with special emphasis on, but not limited to, the following priority areas:

A. Disaster Risk Reduction and Building Resilience

Build resilience and advance adaptation strategies and disaster risk reduction approaches. Some potential examples for consideration by the PARTIES include:

1. Supporting projects to take into account actual or projected effects of climate change in the following areas, among others: governance and innovative policy instruments for planning and decision-making; rising sea levels; drinking water supplies; deforestation and forest degradation; flooding; hurricanes; biodiversity and community socio-economic impacts; storm risk management; and salt water intrusion.
2. Building capacity in communities and at different governance levels to address climate change impacts.
3. Incorporating robust public engagement by involving a diversity of stakeholder groups such as local communities, farmers, businesses, scientists, policymakers, academia, non-governmental organizations, among others, and using facilitators to assist collaboration among the stakeholders.
4. Assisting in the development of local adaptation and disaster risk reduction action plans; fostering a better understanding of climate change and its impacts; assisting in promoting familiarization with international and national adaptation and mitigation strategies; promoting understanding of innovative practices for adaptation and mitigation; and

¹ Executive Orders: OE-2013-015; OE-2013-016; OE-2013-017; OE-2013-018; and OE-2013-019.

promoting the placement of climate change adaptation and mitigation in the context of sustainable development.

5. Exchanging up-to-date information on climate change adaptation plans and island-centric resource planning for improving the livelihood in the islands of the USVI and PR.
6. Promoting the protection of critical infrastructures and public resources, including government facilities and operations, and supporting community based preparedness and resilience efforts, science and research on resilience, and the establishment of policies that advocate preparedness and disaster risk reduction.

B. Working With the Public/Private Sector in encouraging carbon pollution reduction, and increasing resiliency through smart growth, sustainable planning, and clean energy

Examples of the ways or areas in which the PARTIES may collaborate in promoting the reduction of carbon pollution and increasing resiliency through smart growth, sustainable planning, and clean energy include the following:

1. *WaterSense*² - EPA partnership program seeking to protect the future of our nation's water supply by offering people a simple way to use less water with water-efficient products, new homes, and services--reducing energy use and greenhouse gas emissions in the process.
2. *Clean Energy-Environment State Partnership*³ – a voluntary state-federal partnership that encourages states to develop and implement cost-effective clean energy and environmental strategies.
3. *Climate Ready Water Utilities*⁴ – an initiative that provides resources for water providers to adapt to climate change by promoting a clear understanding of climate science and adaptation options and by promoting consideration of integrated water resources management planning in the water sector.
4. *Climate Ready Estuaries*⁵ - working with the EPA National Estuary programs to help coastal managers assess climate change vulnerabilities, implement adaptation strategies, and educate the public.
5. *Sustainable Communities*⁶ - a partnership involving the Department of Housing and Urban Development, the Department of Transportation, and EPA, working to create communities that have a variety of housing and transportation choices, with destinations close to home, in order to lower transportation costs, reduce air pollution and stormwater runoff, among other benefits.
6. *Smart Growth Program*⁷ - includes resources to help local governments, and the private sector build in ways that bring multiple environmental, economic, health, and social benefits, including reducing greenhouse gas emissions and preparing for climate change.
7. *ENERGY STAR*⁸ - promoting energy efficient products and practices.

² <http://www3.epa.gov/watersense/>

³ <http://www2.epa.gov/energy>

⁴ <http://www2.epa.gov/crwu>

⁵ <http://www2.epa.gov/cre>

⁶ <http://www.sustainablecommunities.gov/>

⁷ <http://www.epa.gov/smartgrowth/>

8. *Green Power Partnership*⁹ - promoting partnership between EPA and organizations interested in using green power (electricity produced from a subset of renewable resources).
9. *Methane Reduction Voluntary Programs*¹⁰ – promoting methane partnership programs between EPA and industries, along with state and local governments, to promote profitable opportunities for reducing emissions of CH₄, with programs such as AgSTAR, Natural Gas STAR, Global Methane Initiative, and Landfill Methane Outreach Program.
10. *Transportation and Air Quality Voluntary Programs*¹¹ - promoting partnerships between EPA and small and large businesses, citizen groups, industry, manufacturers, trade associations, and state and local governments aimed in reducing pollution and improve air quality by implementing programs such as National Clean Diesel Campaign, SmartWay Transport Partnership, and the Clean School Bus USA.

C. Sustainable Materials Management

The PARTIES agree to:

1. Promote collaboration to increase recycling rates in the islands via the Puerto Rico Recycling Partnership and Virgin Islands Recycling Partnership. Take action on reducing waste and improving recycling rates in the islands, which can also serve as a model for the other Caribbean islands.
2. Encourage the implementation of waste reduction, clean composting and recycling, promoting the efficient management of solid wastes and the reduction of greenhouse gases. Relevant programs include the Food Recovery Challenge, the WasteWise program and the EPA Sustainable Materials Management Program Strategic Plan.

D. Outreach and Education

It is anticipated that the PARTIES will provide technical assistance and/or training regarding ways to make the islands of the USVI and PR more sustainable and resilient to climate change. This will be mainly accomplished by developing and coordinating technical outreach events with the PARTIES and the public. The technical outreach and/or training may involve seminars, webinars, electronic media, video conferences, and teleconferences on climate change mitigation topics such as energy and water conservation, adaptation and best management practices, sustainability and resiliency.

The Parties will develop educational tools to promote among the residents of the islands of the USVI and PR a better understanding of what climate change is, addressing their concerns about climate change, creating awareness about climate change risks, assessing vulnerability and structuring adaptation plans, and developing and implementing an adaptation strategy.

¹⁰ <http://www3.epa.gov/climatechange/EPAactivities/voluntaryprograms.html>

¹¹ <http://www3.epa.gov/otaq/index.htm>

E. Forms of Cooperation

Forms of cooperation under this MOU may include a needs assessment by the PARTIES to be followed up by prioritization and discussion on how to address them, and may include the following:

1. Sharing information, data, research and experiences about policies and programs that have effectively reduced greenhouse gas emissions and strengthened climate change mitigation and adaptation efforts, as well as efforts that have protected and enhanced human health and the environment.
2. Providing capacity-building and technical support to develop and implement climate change initiatives.
3. Joint organization of symposia, seminars, workshops, exhibitions, and training.
4. Cooperating to advance action on climate change, either jointly or in an individual manner between each federal agency or combination of federal agencies thereof, and each or both Governments of the USVI and PR.
5. Any other form of cooperation that the PARTIES consider may contribute to the goals of this MOU.

In order to achieve the objectives of this MOU, the Governments of the USVI and PR, either jointly or individually, will develop and submit to EPA, a Priority Action List seeking collaboration under the areas identified in this MOU or addressed in the Executive Orders referred to above. The PARTIES will analyze whether programs and resources are available to address those priority actions and if so, whether the actions will be covered by all, or by a specific agency or a combination of thereof in accordance with each Agency's mission.

IV. Terms and Conditions

This MOU is not a contractual or a financial obligation instrument. Nothing in this MOU shall obligate the PARTIES to expend appropriations or to enter into any contract or other obligation or be cited as the basis for the promise or transfer of funds. Collaboration under this MOU shall be in accordance with applicable statutes and regulations.

This MOU does not restrict the PARTIES from participating in similar activities or arrangements with other entities, including local, State or Federal government agencies.

Any one of the PARTIES may unilaterally withdraw at any time from this MOU by transmitting a signed letter to that effect to the other PARTIES.

By mutual agreement, which may be either formal or informal, the PARTIES may modify the list of intended activities set forth in Section III. above, and/or determine the practical manner by which the goals, purposes and activities of this MOU will be accomplished. However, modification of other written parts of this MOU must be made in writing and signed by the PARTIES or their designees.

Nothing in this MOU shall be construed to authorize or permit any violation of any Federal, State or local law, including, but not limited to, any environmental law administered and/or enforced by EPA.

Each of the PARTIES agrees that it does not expect, nor will it ever seek to compel from any of the other PARTIES, in any judicial forum, the payment of money, services or other thing of value based upon the terms of this MOU. The foregoing provision does not in any way affect any legal rights accruing to the PARTIES by virtue of any other law, contract and/or assistance agreement.

The PARTIES understand and acknowledge that, as an institution of the Federal Government, EPA has a duty to refrain from providing any commercial entity an exclusive privilege without receiving payment therefor and, as a consequence, that EPA's relationship with the other PARTIES in no way affects, alters or otherwise constrains EPA's right to provide similar (or identical) services to, or establish similar (or identical) relationships with, any other entity.

The participation of each of the PARTIES in this MOU does not constitute an endorsement, express or implied, of (a) any policy advocated by any of the other PARTIES or (b) any good or service offered or sold by the PARTIES.

The PARTIES agree that any copyrightable subject matter, including but not limited to journal articles, training, educational or informational material or software, created jointly by the PARTIES in the performance of the activities conducted under this MOU may be copyrighted by the PARTIES. The PARTIES hereby grant to each other and to the U.S. Government a royalty-free, nonexclusive, irrevocable right to reproduce, distribute, make derivative works, and publish the works that are written by the PARTIES under this MOU, or to authorize others to do the same on its behalf.

All records arising from the activities contemplated by this Memorandum of Understanding are agency records subject to the Freedom of Information Act, 5 U.S.C. § 552.

The Executive Branch of the U.S. Virgin Islands Government, in recognition of its sovereign duty to conserve and control its natural assets and resources, is empowered by Section 11 of the Revised Organic Act of 1954, conservation and environmental protection statutes contained in VI CODE ANN tit. 12, and regulatory provisions concerning public health contained in VI CODE ANN tit. 19 to enter into this MOU and to undertake actions for the protection, conservation and development of the natural resources of the United States Virgin Islands.

EPA enters into this MOU under the authority of Section 103 of the Clean Air Act, 42 U.S.C. § 7403, Section 104 of the Clean Water Act, 33 U.S.C. § 1254, and Section 8001 of the Solid Waste Disposal Act, 42 U.S.C. § 6981, Section 6604 of the Pollution Prevention Act, and Section 324A of the Energy Policy and Conservation Act, which provide EPA with authority to undertake cooperative efforts with private organizations to promote the coordination and acceleration of research, studies, training, and other efforts to prevent, reduce and eliminate pollution.

This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity against any of the PARTIES, their officers or employees, or any other person. This MOU does not direct or apply to any person outside of the PARTIES.

Upon approval of all the PARTIES, additional agencies may sign on to this MOU in the future to join existing or future collaborations.

V. Reporting

To the extent practicable within available resources, the PARTIES will produce a joint annual report of their activities under this MOU during the preceding year.

VI. Effective Date and Administration

This MOU shall take effect on the first day by which it has been signed by all the PARTIES. It may be modified or amended by written agreement between the PARTIES. This MOU will terminate at the end of ten (10) years from the date of signature, unless such termination date is revised or extended by written agreement of the PARTIES. The PARTIES will review annually the provisions of this MOU and its implementation.



VII. Communications

All communications related to this MOU will be directed through the following points of contact:

For the Government of the territory of the USVI

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For the Government of the Commonwealth of Puerto Rico

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Agreed to and signed in San Juan, Puerto Rico, this day of , 2015.

For the Government of the territory of the USVI



Hon. Governor Kenneth E. Mapp
Governor of the United States Virgin Islands

11-18-15

Date

For the Government of the Commonwealth of Puerto Rico



Carmen Guerrero Pérez
Secretary
Puerto Rico Department of Natural
and Environmental Resources

11-17-15

Date

For the U.S Environmental Protection Agency, Region 2



Judith A. Enck
Regional Administrator, Region 2
U.S. Environmental Protection Agency

11-17-15

Date