The sustainability of renewable energy policy around the world

Sustainability is a relatively new field which has been growing since 1987. That is when the United Nation's published the Brundtland Report which officially defined sustainable development as development that meets the current generation's needs without compromising future generations. Since then, the field has grown tremendously. Fast forward to 2012 when the United Nations advanced 17 Sustainable Development Goals (SDGs). SDG 7 focuses on energy, specifically to "ensure access to affordable, reliable, sustainable and modern energy for all." Some nations are achieving this SDG; however, there are still more than one billion people without electricity. Fossil fuels could provide modern energy but at the expense of the environment (i.e., air and water pollution and greenhouse gas emissions that drives climate change). And currently, renewable energy represents less than 20 percent of the world's total energy production. This dynamic set up one of the greatest big picture challenges of our time, namely, how to provide modern energy for all while protecting the environment. There are examples of nations that are making progress, but they are still in the minority. For example, both Costa Rica and Iceland source the majority of their energy from hydropower and geothermal. At the sub-national scale, regions and cities are following suite. For example, in 2014 Burlington, Vermont became the first American city to run entirely on renewable electricity. However, challenges remain in the transition to renewable energy. This talk will review the state of renewable energy policy around the world both nationally and sub-nationally and provide case studies of exemplary performance in renewable energy policy.

Biography

Sandra Jo Garren is the Director of Sustainability Research at the National Center for Sub-urban Studies at Hofstra University. She is also the Director of Sustainability Studies and an Assistant Professor in the Department of Geology, Environment, and Sustainability at Hofstra University. She completed her Doctorate in Geography and Environmental Science & Policy Program in the Department of Geosciences at the University of South Florida, Tampa in May 2014. She holds a Bachelor's degree in Earth Science/Geology and a Master's degree in Teaching. In total, she has more than 25 years of experience in both academic and environmental sustainability fields as a Principal Investigator, Project Manager and Technical Expert. She has conducted numerous scientific investigations related to sustainability, greenhouse gas accounting, energy policy, climate change policy, water management and environmental regulation. Her research is currently focused on sustainability, energy policy, climate policy, and water management issues globally, nationally, and sub-nationally with a focus on applied science and policy that solve problems and find solutions to the negative impacts of climate change and other environmental challenges. She currently teaches courses in sustainable development, sustainability theory, sustainable energy, and geospatial applications in sustainability. She is currently co-authoring two sustainability case study books in the fall 2017.

sandra.j.garren@hofstra.edu

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