THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

Pathways to Urban Sustainability: A Focus on the Houston Metropolitan Region

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As a large coastal city and hub for fossil fuel industries, the Houston metropolitan region has been at the forefront of many sustainability challenges. Air quality has been a problem for decades—ozone and particulate matter are a persistent threat to human health in the area. Houston is also located in a vulnerable coastal zone, and extreme events such as 2008's Hurricane Ike have demonstrated the outsize impacts that natural disasters can have on urban areas. Land use decisions in Houston have resulted in a high degree of automobile dependency, traffic congestion, and polluted sites (brownfields) in close proximity to residential areas. Underlying each of these issues, and urban sustainability in general, is the theme of social vulnerability—environmental disturbances put the human population at risk.

Despite these known challenges, Houston is the fourth largest city in the United States, and is part of the sixth largest and one of the fastest-growing metropolitan areas nationwide. This growth is the result of a strong regional economy, anchored by the energy industry and a bustling port. While continued growth could exacerbate many of Houston's environmental challenges, local stakeholders are engaging in some innovative programs in the hopes of charting a path toward sustainability and urban resilience.

The National Academies are organizing a workshop for January 2012 to foster discussion of approaches to urban sustainability in the Houston metropolitan region. The workshop will emphasize building the evidence base upon which policies and programs might be developed in order to help identify place-based research needs and assess promising practices.

Major objectives of the workshop:

- Discuss the ways that regional actors are approaching sustainability, specifically, how they are attempting to merge environmental, social, and economic objectives
- Share information about ongoing activities and strategic planning efforts, including lessons learned
- Examine the role that science, technology, and research can play in supporting efforts to make the region more sustainable
- Explore how federal agency efforts, particularly interagency partnerships, can complement/leverage the efforts of other key stakeholders

Anticipated outcomes of the workshop may include: examples of sustainable urban initiatives; identification of barriers to sustainability; a better understanding of the role of public-private partnerships, and the catalysts needed for action. To this end, the workshop could serve as a platform to establish new cooperative programs between federal and local stakeholders. The National Academies will make presentations from the workshop available on its website immediately following the event. Subsequently, a peer-reviewed NRC report that synthesizes the discussions from Houston will be prepared, published, and disseminated. The report will be widely disseminated across not only federal agencies, but also among regional associations, academic institutions, think tanks, and other groups engaged in urban research.

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