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The 21st-Century City A No-Impact City?

Pranay Gupte 09.02.09, 6:00 PM ET

Who says an oil-rich sheikdom in the Middle East cannot also be a world leader in developing conservation policies and environment-friendly technologies?

Long before the "green" movement girdled the globe, long before environmentalists started railing against corporations for allegedly polluting the Earth, and long before eco-gurus began accumulating fame and fortune by holding forth against global warming, Abu Dhabi had already turned its harsh desert into green landscape. You could even argue that Abu Dhabi--capital of the oil-rich United Arab Emirates (UAE)--was the world's first truly green city.

That was because of the single-minded determination of Sheikh Zayed bin Sultan Al Nahyan, who helped marshal an assortment of seven sheikhdoms into a federation in December 1971. As the UAE's first president, he was also quite possibly the world's first head of state to recognize that there need not be a conflict between environmental security and economic progress. So Sheikh Zayed ordered the planting of more than five million trees and the creation of dozens of parks. At the same time, he encouraged the development of manufacturing and agribusiness. Today, you'd be hard pressed to imagine Abu Dhabi as a city that rose from an unrelenting desert at the edge of the Persian Gulf.

But Abu Dhabi hasn't stopped at just planting trees and fashioning gardens: In 2016 it will launch Masdar City, which may be the most ambitious sustainable-development project in the world.

Masdar City is intended to be both a city and laboratory. Sultan Al Jaber, Masdar's chief executive, says the goal of the 2.5-square-mile site, located 11 miles southeast of Abu Dhabi, is to "position Abu Dhabi as a world-class research and development hub for new energy technologies ... we want to promote development and commercialization of innovative technologies in renewable and sustainable energies as well as sustainable design." (For more on Masdar's blueprint, see "[Utopia in the Desert.](#)")

When completed and open for business, Masdar officials say it will be the world's first zero-carbon, zero-waste city powered entirely by renewable energy sources. The city's denizens are expected to include 50,000 people who will live and work without cars or fossil fuels. The idea is that Masdar will be the world's first carbon-neutral city and will play a decisive role in Abu Dhabi's transition from technology consumer to technology producer, Al Jaber says. The idea also is that the UAE--which produces 2.2 million barrels of oil daily and has reserves of 98 billion barrels, which should last for 150 years--will reduce its carbon footprint and spur fellow members of OPEC, the 12-nation oil cartel, to pursue more environmentally friendly policies.

The latter, of course, is easier said than done. Everyone pays lip service to the notion of environmental sustainability. But few countries that have signed on to various international codicils concerning environmental protection have actually implemented stringent measures. Developing countries, including India, China and Brazil, argue that new environmental technologies are expensive to acquire and maintain; moreover, they say, their economies need to expand pollution-causing manufacturing because of growing populations and the rising expectations of the increasingly educated masses.

Western countries assert that this argument is specious, and that even though some of them--like the United States--are willing to subsidize modern environmental technologies in poor countries, the leaders of the latter often find it politically expedient to play to their domestic galleries and oppose measures proposed by the industrialized nations. These leaders say that imposing strict environmental policies would mean fewer jobs domestically--an argument that may have some merit but isn't entirely insurmountable.

In fact, among Masdar City's plans is one that would develop cheap manufacturing technology that is also easy on the environment. Some of the research for such technology will be carried out by a new intergovernmental organization based in Abu Dhabi, the International Renewable Energy Agency (IRENA). The selection of Masdar to be IRENA's home marks the first time that an international organization so global in scope has chosen a Middle East city for its headquarters.

According to IRENA officials, the 131-member organization--which was formed in January 2009 and plans to move its headquarters to Masdar in 2010--aims to become the main driving force in promoting a rapid transition toward the widespread and sustainable use of renewable energy on a global scale. Acting as the global voice for renewable energies, IRENA plans to provide practical advice and support for both industrialized and developing countries, and help them improve their regulatory frameworks and build capacity. The agency will facilitate access to all relevant information, including reliable data on the potential of renewable energy, best practices, effective financial mechanisms and state-of-the-art technological expertise.

IRENA will work closely with Masdar's parent body, the Mubadala Development Company. Mubadala is wholly owned by the Abu Dhabi government, the wealthiest of the seven sheikhdoms that constitute the UAE on account of the fact that nearly 95% of the nation's oil is found in this emirate.

This wealth enabled the UAE to make a huge commitment to IRENA during the campaign to become its headquarters, in which competitors included Germany and Denmark, both countries with stellar environmental records. Under the UAE commitment, it will give IRENA a grant of \$136 million over a six-year period, while also covering all operational costs in perpetuity. At the same time, the Abu Dhabi Fund for Development has created a special endowment of \$50 million until 2016 for IRENA; the money is to be used for loans in support of renewable energy projects in the developing world.

The larger point to be made about Masdar is that the initiative comes from a country whose population of four million consists of just 10% local Emiratis. But they are an ambitious people, well-versed in dealing with the world on account of their centuries-old tradition of trading. Thriving, futuristic cities like Abu Dhabi and Dubai were once small ports, but they dealt with merchants and travelers from around the globe.

Now they are showing the world new and innovative ways of dealing with the problems of globalization--problems like environmental degradation. It wouldn't be hyperbole to say that Masdar is leading the way.

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[Return to The 21st-Century City special report.](#)