

## Editorial

# In an era of raising walls, hope for sustainability lives in the cities

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doi:10.18472/SustDeb.v7n3.2016.21852

USA president-elect Donald Trump has vowed for some time to move the country away from its world-class leadership in the matter of confronting global warming. The rich businessman who became the top leader of the world's most powerful country also promised to dismantle many of the signature policies put in place by the Obama administration to fight the effects of human-caused climate change, which he has called "a hoax".

More recently Trump has refused to repeat openly his promise to abandon the international climate agreement reached in Paris last year. He is saying things like "I am looking at it very closely" and "I have an open mind about it". Nonetheless the Republican president-elect still seems to hold on to his plan to abort the American Clean Power Plan, a set of rules intended to reduce emissions from power plants. With Trump in the Oval Office and Republican majorities in both houses, there is little hope that this plan will survive in the Supreme Court or that federal action will honor the U.S. commitment to the Paris agreement. Worse than this, experts say, is that other key nations responsible for emissions — especially developing countries, such as India — will have scant reasons to follow through on their Paris pledges.

Trump has also criticized regulations that limit the risks of methane leaks from wells and pipelines. Members of his transition team have suggested that he may reduce or eliminate basic climate research conducted at NASA and other agencies. Also at the national level, Trump has promised to dismantle the Environmental Protection Agency "in almost every form" and has named Myron Ebell (member of the business-backed Competitive Enterprise Institute) to head his EPA transition team. Mr. Ebell has asserted that warming caused by *greenhouse* gas pollution is modest and could be "beneficial."

At the international level, Trump may also easily abandon several climate initiatives taken by the Obama administration, including a United Nations-backed program to reduce the environmental impact of international air travel beginning in 2020. The United States has committed only informally to participate in the program and the new administration could refuse to make that commitment legally binding.

While breaking deals and raising skyscrapers at home and abroad, Mr. Trump is also keen on building walls, both real and symbolic: He promised to build a fence between on the American border with Mexico to keep immigrants away. He also celebrated Brexit, the new invisible wall that will separate the United Kingdom from its long-standing family, the European Union. To Trump's satisfaction, even Latin America, the US's problematic "backyard", seems to be leaning to the right, while long-standing leftist leaders, like Fidel Castro, are quietly passing away, confirming the slow, but steady, decline of the left in the sub-continent.

In spite of these favorable winds, one of Trump's dearests plans - to separate the U.S.A. from the rest of the world by withdrawing from the Paris climate change agreement - may be more difficult to achieve than he thinks: The settlement went into force last month. And this is not the only reason: the main obstacle to Trump's plans to thwart international climate change agreements is a silent one, often

disregarded: cities, both from the US and abroad, have decided to mitigate climate change effects. That is where hope for sustainability remains.

However, how can cities be important? Can they overturn climate decisions made by officials at the national and international levels? Can small, local actions defeat global warming? At first sight, it seems to be a battle between David and Goliath. But, so goes the story, little David ultimately won. How so? More than 10,000 climate related initiatives are being undertaken in cities all over the world, according to the C40 - Cities Climate Leadership Group, which represents 80 large cities. Cities that are sensitive to the sustainability agenda are tearing down walls and integrating horizontally with each other. This is happening on all continents.

The mayors of these cities have urgent reasons to “fill the blanks” of adaptation strategies and measures to reduce vulnerability, independently from the political games played in Washington. Worldwide, cities produce as much as 70 percent of *greenhouse* gas emissions. Many of the planet’s cities lie along the coasts and are threatened by slowly rising seas. 70 percent of those cities are already dealing with extreme weather-related phenomena like droughts and floods. If we add aging infrastructure and waves of new migrants (some of them refugees from climate disasters) it becomes obvious that city planners, mayors and governors have to re-envision how their cities generate energy and provide food and transportation, while playing a positive, beneficial role within the natural ecosystems from which they depend.

Michael Bloomberg, the former mayor of New York, has already announced that he will fight Trump’s environmental (anti) policies. Bloomberg recently told a worried Chinese General Chamber of Commerce that “Cities, businesses and citizens will continue reducing emissions, because they have concluded — just as China has — that doing so is in their own self-interest”. He added that cities would fight climate change “with or without Trump”. The issue is that, with or without significant federal support, reducing *greenhouse* gas emissions will require major private investment and ambitious private-public initiatives from mayors and governors. California’s recent move to reduce by 2030 its carbon emissions to a level 40 percent below 1990 levels is a hopeful shift that other cities and states should emulate. This would involve setting high benchmarks for developing *green* enterprise zones, stimulating renewable energy, cultivating food locally, restoring biodiversity, planting more trees and emphasizing walkability, low-carbon transportation and zero waste.

And this goes well beyond the US. Like global warming, awareness about the imminence of a climatic apocalypse seems to recognize no borders, raising waves of horizontal integration among environmentally concerned cities in all continents. In Quito, Ecuador, a recent gathering of city leaders from around the world hosted by the United Nations - the Habitat III Conference - approved a “new urban agenda” that urges cities to adapt to climate change minimize their harm to the environment, and move toward sustainable economies.

While many Latin American cities remain highly centralized and dependent of federal administrators, sub-national governments in Brazil have played an outstanding role in establishing and implementing climate policies. Over the past decade, climate legislation has been approved in several Brazilian states (for instance, São Paulo, Minas Gerais and Rio de Janeiro) and municipalities (such as São Paulo, Rio de Janeiro and Curitiba). The first pertinent state law was created by the state of Amazonas, which also established a dedicated agency to deal with climate change issues (the agency was phased out due to budget constraints). The state of São Paulo approved a 20 percent emissions reduction target by 2020, considering 2005 as the base year. The cities of São Paulo and Rio de Janeiro have also stated reduction targets. The city of São Paulo has pledged a 30 percent reduction, based on emissions from 2005 to 2010, and Rio de Janeiro has pledged to reduce emissions by 8 percent by 2012, 16 percent by 2016 and 20 percent by 2020.

In Argentina, a new initiative has tried to fill the absence of climate-change related policies at the sub-national governmental level. This is expressed by the Network of Argentinian Cities on Climate Change (RAMCC). RAMCC, a non-governmental organization with close ties to similar organizations from Europe and the Americas, was born in Rosario (Province of Santa Fe), outside the ever-centralizing capital city of

Buenos Aires. The network, which relies much on trust and direct, mouth-to-mouth knowledge-sharing strategies among local leaders, has managed to extract environmental commitments from mayors representing cities and towns from all over the country. Some of those towns have less of a hundred inhabitants. They are now feeling empowered while making home-made collective plans to recycle waste, generate renewable energy, promote a return to traditional, organic agriculture and cattle-ranching, worship and protect their ecosystems, and create environmental awareness among citizens and youngsters. Maybe this is one of the keys for their success: instead of envisioning climatic change as a dark, apocalyptic scenario, and as an unavoidable fate, as it is usually presented in international negotiations and conferences, those towns see their reality as a possibility of becoming empowered and creative, of networking, and even of ... having fun!

Ashton Hayes, an English village of just 1,000 inhabitants, is different in an important way when it comes to one of the world's most pressing issues: climate change. Hundreds of residents came together to cut *greenhouse* emissions — they use clotheslines instead of dryers, take fewer flights, install solar panels and glaze windows to better insulate their homes. The effort, reaching its 10th anniversary this year, has led to a 24 percent cut in emissions. But what makes Ashton Hayes unusual is its approach — the residents have done it themselves, without prodding from government.

About 200 towns, cities and counties around the world — including Notteroy, Norway; Upper Saddle River, New Jersey; and Changhua County, Taiwan — have reached out to learn how the villagers of Ashton Hayes did it. One of their secrets, it seems, is that the villagers feel in charge, rather than following government policies. Another secret, maybe the most important, is that villagers avoid guilt-tripping or doomsday scenarios that make people feel as if the problem is too overwhelming to tackle. In Ashton Hayes — located about 25 miles southeast of Liverpool - the villagers have lightened the mood and hold public wine-and-cheese meetings while planning to become, as they say, “Britain’s first carbon-neutral village.”

Other towns and cities around the world are implementing the same pattern of horizontal integration. Many mayors, governors and local leaders have contacted directly Ashton Hayes leaders, asking for help in setting up similar initiatives. Eden Mills, a small community in Ontario, Canada, is one of them. Some of its citizens visited Ashton Hayes in 2007 to meet their fellow fighters against climate change and learn how to translate their approach to Eden Mills, adopting the apolitical, voluntary, fun-loaded method. Since then, Eden Mills has cut emissions by about 14 percent.

The City Council of Notteroy, Norway, an island municipality of about 21,000 people, reached out to Ashton Hayes about nine years ago after one of its political parties decided to include reducing carbon dioxide emissions in its platform. They found that Ashton Hayes people’s idea— to make caring for the environment fun, without pointing fingers — was revolutionary. Since then, Notteroy has adopted the same mantra of fun, something that has paid dividends: people there are buying more electric cars and bicycles and are converting their home heating from oil to more environmentally friendly sources.

Following this same positive, non-apocalyptic approach, the Australian city of Adelaide has reduced its carbon emissions by 20 percent from 2007 to 2013, even as its population grew by 27 percent and its economy increased by 28 percent. The city experienced a boom in *green* jobs, the development of walkable neighborhoods powered by solar energy, the conversion of urban waste to compost and a revamped local food industry. It also planted three million trees to absorb carbon dioxide.

Therefore, while international leaders threaten with dark climatic scenarios and bargain about carbon emissions, around 10,000 climate initiatives are underway in cities worldwide. Of course, implementation of the sustainability agenda in towns and cities will not be an easy and straightforward process. On the contrary, it will face a number of challenges. However, if smart and flexible management approaches are applied, these challenges can be transformed into opportunities — not only in the urbanizing developing world, but also in developed and highly industrialized urban areas. This, however, is not simply about financing new technologies or fostering economic growth. Rather, it is about balancing the demands of local social and economic development with smart environmental management and innovative leadership, including tailor-made and customizable approaches that can distinguish between city-types.

To be attained, sustainability must be understood, locally sought, customized and humanized. Successful government officials are those who allow citizens to understand global sustainability challenges, to deal locally with climate change impacts and to customize solutions, so that citizens feel that they too must be part of the effort. This is something that Trump, as well as fellow leaders from all around the world, should try to implement as well, at every level of governance.

In its last 2016 issue, SeD presents ten *varia* articles and three book reviews. The articles cover a wide range of topics and approaches to sustainability – water resources, eco-innovation, extraction of floral resources, environmental certification, food security, environmental agendas, public policies and hospitality management. This rich variety should make us reflect even deeper about the many challenges to the implementation of sustainable initiatives.

The first two articles deal with the use of water, although in different contexts. “Seasonally-Pumped-Storage on the São Francisco River: increasing energy storage capacity and reducing evaporation losses” (“*Usinas Hidrelétricas Reversíveis Sazonais no rio São Francisco: aumentando o armazenamento energético e diminuindo a evaporação*”), by Julian Hunt, Marcos Aurélio de Freitas and Amaro Pereira Júnior, proposes the adoption of a new arrangement for energy storage. It associates seasonally reversible hydroplants with traditional overflow hydroplants. The goals are to increase Brazil’s capacity for the storage of water and energy and reduce water loss by evaporation in the Sobradinho reservoir.

The other article about the use of water is “Participation, Representation and Representativeness in the decision-making process of River Basin Committees: concepts, reflections and discussions” (“*Participação, Representação e Representatividade no processo de tomada de decisão em Comitês de Bacia Hidrográfica: conceitos, reflexões e discussões*”), written by Flávia Barbosa, Frederico Hanai and Paulo Romera e Silva. It discusses the effectiveness of the participation of the several members of these committees and raises issues about representation and representativeness in those committees’ decision-making processes.

Ricardo Colonetti, Cristina Yamaguchi, Adriana Vieira and Júlio César Zilli, authors of “The eco-innovation approach for the sustainability of railroads in the South of the state of Santa Catarina” (“*Abordagem daecoinovação para a sustentabilidade das ferrovias no sul de Santa Catarina*”), deal with the topic of eco-innovation. Their case study examines the deployment of an eco-wagon and how it can contribute to the sustainability of railroads in the state of Santa Catarina. It showed that this eco-innovation initiative produced results and that it can be associated with concepts and classifications discussed in the literature.

The next article examines the perceptions of actors involved with a program focused on the collection of discarded materials. Maurício Marques, Sérgio Braga Júnior, Edgard Merlo and Marta Martinez are the authors of “Perceptions of Retailers and INPEV Collection Centers in the Region of Alta Paulista (state of São Paulo), as participants of a Reverse Logistics Program of Agrochemical Packaging” (“*Percepção dos Revendedores e Centrais de Coleta do Inpev na Região da Alta Paulista, como participantes da Logística Reversa das Embalagens de Agrotóxicos*”), based on interviews conducted with retailers and collection center managers active in Alta Paulista, an agricultural section in the interior of the state of São Paulo. They sought to find out what the interviewees think about the program for collecting discarded agrochemical containers, as required by Brazilian law.

Nivaldo Simões Gomes e Eloy Casagrande Júnior wrote “Consumers’ knowledge and perspectives about the environmental labeling of products” (“*O conhecimento e o ponto de vista de consumidores a respeito da rotulagem ambiental de produtos*”), in which they examine the perceptions of consumers about environmental labeling. Their research was based on data extracted from the 417 responses to an online questionnaire. Among their findings, they emphasize that consumers are not well informed about *green* labeling and that they are not strongly prone to buy certified products.

The article “Institutional partnerships and the evolution of jaborandi extraction in the Carajás National Forest, Pará, Brazil” (“*Parcerias institucionais e evolução do extrativismo de jaborandi na Floresta Nacional de Carajás, Pará, Brasil*”) was written by Fabiano Gumier-Costa, David McGrath, Juarez Pezzuti and Alfredo Homma. It contains a study of floral extraction in the Brazilian Amazon region,

with a focus on the collection of jaborandi leaves (famous for their use in eye drops that help stabilize glaucoma) in the area of Carajás, state of Pará, Brazil. The authors theorize and discuss the numerous and complex matters related to the possible substitution of the collection of the leaves of native trees by the cultivation of the plant.

Janaina Michelini and Myanna Lahsen wrote “Implications of Brazilian beef for food security: Scientific versus industry discourses” [*Implicações da pecuária brasileira para a segurança alimentar: A ciência e o discurso do setor produtivo*]. They examine how beef producers understand the role of their activity in regard to food security. Based on theoretical considerations and data taken from interviews conducted with beef producers, the authors found that while the scientific literature argues for the reduction of the production and intake of meat in order to enhance food security, beef producers sustain that meat is essential to guarantee food security in Brazil and in the rest of the world. Therefore, the sector’s discourse paradoxically jeopardizes food security,

Luiz Antônio Ferraro Júnior, in “Seeking effectiveness of the environmental agenda: beyond political reductionism” [*Busca de eficácia da agenda ambiental: para além do reducionismo político*], argues that obstacles such as utopias and the “simple” pragmatic challenges of environmental quality are obstacles to the achievement of the environmental agenda. He examines these obstacles from a critical and dialectical perspective, aided by the representation of system dynamics.

Alexandre Nascimento and co-authors wrote “Universities and the challenge of implementing sustainability policies: the experience of the Universidade do Estado de Minas Gerais in the municipality of Divinópolis” [*Aproximando a universidade dos desafios de implementação de políticas públicas para a sustentabilidade: uma experiência da Universidade do Estado de Minas Gerais no município de Divinópolis*]. They intend to provide information and analysis that may enhance the interplay between the university and local society. They used public documents and data taken from interviews with several actors involved in public policies pertinent to sustainability such as the protection of native vegetation and the management of solid waste.

“Sociocultural and economics perspectives for hotel management: a case study of the *Hostel Ralé Chateau – Rio de Janeiro*” [*Perspectivas socioculturais e econômicas da gestão hoteleira: um estudo de caso no Hostel Ralé Chateau – Rio de Janeiro*] is the title of the last article in this issue of SeD. It was written by Rodrigo Amado Santos and co-authors. They argue that the pacification of Rio’s slums (favelas) changed the scenario of public safety and created a market for tourists interested in visiting these communities. The authors conducted a qualitative investigation on the exploration of this new market, focusing the programs organized by the *Hostel Ralé Chateau*, located on the Morro do Cantagalo.

SeD 17 also presents three book reviews. Abner Luis Calixter reviews *Pursuing Sustainability – A Guide to the Science and Practice* (by Pamela Matson, William C. Clark and Krister Anderson). Carlos Christian Della Giustina writes about *Sapiens*, the best-seller written by Yuval Noah Harari. Daniel Simberloff’s *Invasive species: What everyone needs to know* is reviewed by Marília Teresinha de Sousa Machado.

Our last issue for 2016 concludes with a Gallery. It includes text and photos that reassert the importance of the plant bamboo in the set of raw materials that are strategic for sustainable socioeconomic development. Jaime G. de Almeida, professor at the Universidade de Brasília, wrote the text, stressing how much bamboo contributes to nature conservation, to the creation of jobs and to the improvement of income among vulnerable populations. Additionally, bamboo creates culture and well being. Most photos were taken in Professor Almeida’s lab – the Center for Research and Application of Bamboo and Natural Fibers (Universidade de Brasília, Brazil).

Good reading and a happy 2017 to all!

## The Editors