Environmentally sustainable and smart cities
DSDS 2015 _ Thematic Track
Date: February 4, 2015 ❙ *Time:* 3:30 – 5:30 PM
Venue: Hotel Taj Palace, New Delhi, India

Background Note

The Government of India has recently released the Smart City Scheme note that provides a background and an implementation framework for the 100 Smart Cities programme. The note places use of information and communications technology (ICT) at the center of development and proposes development of cities that are highly digitized and networked, citizen centric, environmentally sustainable, energy efficient and effectively managed urban centers which attract investments and also provides a good quality of life to its citizens. The note also highlights the need for each smart city to be environmentally sustainable and hence calls for a need to develop environment sustainable plans under the scheme.

It is under this background that this thematic track on 'Environmentally sustainable and smart cities' is planned and organized. The track will deliberate on the critical issues in implementing the smart cities agenda, preparedness of the cities and the role technology can play in creating more environmentally sustainable and smart cities.

The **key objectives** of the track are as follows:

- To understand and deliberate on the key and deliverable components of an Environmentally sustainable framework (ESF)
- To discuss and understand the role technology can play in addressing the challenges of the urban settlements and making the cities more environmentally sustainable and smart.
- To deliberate on the preparedness of our cities for implementation of smart technologies in terms of physical infrastructure, technical capability and funds availability
- To identify key action areas to ensure effective implementation of the smart cities project in India

As part of this track, two panel discussions are planned under the two themes on 'Integrating Environment Sustainability Framework into the smart city agenda' and 'Role of ICT in technology deployment for making cities smarter' as discussed below. The panel discussions would include invited discussions from speakers with varying backgrounds including policy makers, city representatives, sector experts working on sustainability and environmental issues, consultants as well as business groups. Each of the speakers would be given seven minutes to speak on the theme of the track. Following which, the floor will be declared open to the audience for questions.

Theme 1: Integrating Environment Sustainability Framework into the smart city agenda

Cities are a complex eco system sharing a critical relation with its surroundings. And therefore, city management would entail processes and systems that have a give and take relation with the environment. The interdependency of the two is for two key reasons: one, cities need resources that it consumes for its everyday functioning and secondly for disposing off the waste generated by the city systems which if not done in an appropriate manner can have serious negative impacts on the environment, thus affecting the environmental quality as well as general well-being of its citizens. Smart city concept, thus pays an increased attention to this city and environment relation and aims to develop more environmentally sustainable cities. The smart city concept note released by the government highlights a need for "*each of the smart cities to prepare an* ***environmental sustainability plan (ESP)*** *which will outline the plan and actions for ensuring inter-alia adoption of energy efficient and green technologies and processes. It would also encourage change in behavior to maintain and rejuvenate cleanliness, greenery, water-bodies etc.*"

(Draft note on Smart cities, Ministry of Urban Development, Government of India)

To come up with efficient and effective environmentally sustainable plans, a need for a guiding environment sustainability framework is realized which provides a systematic approach to the cities to come up with plans that ensure wise use of natural resources, measure and minimize environmental impact from everyday activities, encourages maintenance and conservation of natural resources and enhances the attractiveness of the natural environment. It is important that this framework is developed in integration with the other critical components of the scheme and fits into the broader agenda of developing smart cities in India. This session will therefore deliberate and aim to address the following questions:

- What are the key challenges in implementing the '100 smart cities' project in India?
- What should be the focus/strategy of city administrators while making city specific environment sustainability plans (ESP)?
- What should be the key components of an Environmentally Sustainable Framework (ESF)? How can the framework help in delivering more environmentally sustainable, citizen centric and efficient cities?
- What needs to be done to ensure that the framework is integrated with the other integral components of the scheme and fits into the larger smart city agenda?

Theme 2: Role of ICT in technology deployment for making cities smarter

A city can be defined as 'smart' when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic development and a high quality of life, with a wise management of natural resources, through participatory action and engagement[1]. With cities in India urbanizing like never before, ICT industry seems to have the right tools, experience and capability to deal with the urban challenges and help provide for more efficient living. However, a need is realized to understand the best use, scope and the level of penetration of technology required in making the cities smarter in the Indian context. For effective implementation of the smart cities agenda, it is critical that a roadmap defining the city readiness is developed along with the strategic preparations that need to be done to prepare our cities for the paradigm shift in terms of infrastructure, finances as well as institutional capacity.

Specific questions that the panel discussion will aim to address are:

- Are Indian cities prepared for the techno centric smart development?
- What role can ICT play in addressing the issues related to urban development in context to India?
- How can cities adapt to new emerging technologies? What should be the strategy of the city managers to enable cities adapt to the new technologies?
- What should be strategy of the city authorities in enabling this growth and taking forward the smart agenda?

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[1] Caragliu, A; Del Bo, C. & Nijkamp, P (2009). "Smart cities in Europe". *Serie Research Memoranda 0048* (VU University Amsterdam, Faculty of Economics, Business Administration and Econometrics). Also adapted by Siemens (Infrastructure and Cities sector).