



## Regional Dialogues – Bengaluru | September 16, 2014

*A prelude to the Delhi Sustainable Development Summit 2015*

The global presence and reach attained by TERI are not only substantiated by its presence in different parts of the world, but also in terms of the wide geographical relevance of its activities. Symbolic of this fact is the annual Delhi Sustainable Development Summit (DSDS), a major event focusing on sustainable development, environment, and energy, the pursuit of the Millennium Development Goals (MDGs) and the assessment of worldwide progress in these critical areas.

Since 2001, TERI annually organizes the DSDS to facilitate the exchange of knowledge on all aspects of sustainable development. Over the past 14 years, it has emerged as one of the foremost fora on issues of global sustainability and has brought together Heads of States and Governments, thought leaders, policy makers and the crème de la crème of the industry and academia to deliberate on myriad issues.

The 2015 Summit assumes great significance as the United Nations is in the process of finalizing the Sustainable Development Agenda post 2015, as well as the findings of latest report of IPCC, which presents a grim picture for the planet. DSDS 2015 would present a unique and timely opportunity to discuss the Sustainable Development Goals (SDGs) and the challenges in greater detail.

**SDGs in the Indian context:** To achieve sustainable development for all, the right type of goals and indicators should be adopted globally, and these should not ignore the national context.

- 1. Eradicating poverty and energy security:** India needs strong policies and laws to eradicate poverty. There is a strong correlation between energy access and poverty, so policies should focus on the lack of access to power, and how energy security can be used as a tool to tackle poverty.
- 2. Food Security:** India faces major challenges in food security, as the poverty situation remains grim. Strong measures to check lapses in the Public Distribution Systems, creating capacities to store foodgrains and checking malpractices in the PDS system are the need of the hour.
- 3. Access to safe water supply and sanitation facilities:** Despite India's rapid economic development, poor access to safe drinking water and sanitation exacts a heavy toll on public health, especially among women and children. Even today, only one in every five rural households has one of three basic facilities – drinking water, electricity and sanitation.

**SDGs and Climate Change:** Climate change has today become a universal challenge, rather than just an environmental concern. Experts feel that countries should focus on climate adaptation pathways and tune SDGs goals with targets in key areas such as energy, food and water.

The 15<sup>th</sup> edition of DSDS will be the first international platform to address the subject of post-2015 development agenda. The SDGs, which will define the path of development, will be formulated later in the year.

TERI is hosting a series of dialogues in various Indian cities to create awareness about the SDGs, create momentum towards their finalisation, as well as contribute substantially to the process which will define the post-2015 path of development.

The Regional Dialogues are being hosted in Bengaluru, Chennai and Mumbai. The focus of the discussions in these Regional Dialogues will center on the recent government agenda of setting up of 100 Smart Cities. Smart cities will require not only infrastructural and policy interventions, but also awareness and behavioural change. The Regional Dialogue deliberations will focus on these issues in addition to various aspects related to city life - pollution, water & sanitation and transportation.

The ultimate goal of this initiative is to see how smart cities can help us achieve the Sustainable Development Goals, which will guide the post-2015 global development scenario. The first in this series will take place in Bengaluru and will deliberate on **Smart Solutions for Sustainable Cities: Planning, Implementing and Building Capacity and Clean & Smart Technologies.**

### **Bengaluru as the next Smart City: Challenges**

Bengaluru, unquestionably, has all the ingredients to develop into a Smart City. It needs mammoth funding, sustainable solutions and enormous political will to accomplish this dream.

- **Waste management:** The city doesn't have proper solid waste management in place. Untreated waste gets dumped in the city environments, which is leading to health hazards and social clashes between urban and rural populations. Even though the municipal corporation has made it mandatory, electronic waste is still not being segregated.
- **Housing solutions:** Making affordable and sustainable housing available for the poor and the marginalized as well as slum redevelopment projects requires proper planning and substantial investment.
- **Power availability:** The Power situation in Bengaluru needs urgent attention. Renewable energy technologies can meet a large share of this growing power demand. Solar power has the potential to generate 24x7 electricity supply.
- **Water supply:** Nearly 40 per cent of the water in the Cauvery river does not reach Bengaluru's homes, as it gets wasted in its course due to a maze of old leaky pipelines, or due to unauthorized connections.
- **Air pollution:** Bengaluru's residents are now choking due to increased and deadly levels of air pollution, especially from particulate pollutants. The Respirable Suspended Particulate Matter (RSPM) level is over four times the national permissible limit. The main causes for this is the suspension of road dust, industrial and construction activities and diesel generators sets being used for commercial purposes. Effective implementation of air pollution standards is required.

Others problems include traffic management and restoration of water-bodies.

The Bengaluru Regional Dialogue will host the following two panels:

#### **I. Smart Solutions for Sustainable Cities: Planning, Implementing and Building Capacity:**

The concept of introducing smartness in cities needs to be embedded within the strong principles of achieving sustainability. The objective must enable a safe, healthy, and sustainable environment that has adequate resource-efficient infrastructure; and has environmentally responsible mechanisms for good governance and efficient delivery systems.

While citizen satisfaction holds primary focus in the Government's agenda for enabling smart cities, ownership of planning and implementation initiatives at the urban local body level would be critical to achieve success. The role of the citizens in defining holistic smart cities; the role of the private sector in enabling finance, planning and execution; and, the role of the government in facilitating effective environmental and implementation frameworks would help address fast increasing urban problems. A nationwide capacity building programme to bridge knowledge gaps at various levels, including development of technology incubation centers and facilitation of technology transfer to enable identification of suitable city-specific solutions, would be instrumental in realizing this vision. The Bengaluru Regional Dialogue aims to seek inputs from various stakeholders, which would be incorporated in relevant national initiatives spearheaded by TERI.

## II. Clean & Smart Technologies:

Smart Cities are created to provide a healthy and socially compatible environment for overall growth and well-being of its citizens and their future generations. Trends indicate that the urban population of India is estimated to touch 590 million by 2050. Currently, the urban electricity requirement stands at 77,500 MW, of which nearly 56,000 MW comes from thermal sources. And, the demand for water too is estimated to increase by 40 per cent by 2025. As of today, close to 130 million people do not have access to safe drinking water. Also, about 43 million tonnes of solid waste is generated by urban India annually that finds its way in landfills. The concept of Smart 'Sustainable' Cities broadly entails environmentally responsible and resource-efficient measures that are designed to reduce the overall impact of the built environment on human health by efficiently using energy and water and protecting the occupant's health, improving productivity, reducing air, water and solid waste pollution. All these utilities will need to be powered and supported by with a strong base of ICT for driving sustainable economic growth and management of natural resources. Such initiatives would require introduction of clean and efficient technologies like solar water heating, common space heating and cooling systems for apartment buildings to reduce energy consumption, waste recycling and waste to energy, water recycling, smart metering among others.

The Government also aims to identify and convert satellite cities into smart cities to reduce the burden on metros and major cities. Clean and smart technologies, therefore, would play an important role in this endeavour. These technologies would address resource planning, maintaining infrastructure, efficiency in services delivery and optimum utilization of services and infrastructure. Energy efficiency and use of clean energy would be an essential part of the Smart Cities.

The Regional Dialogue at Bengaluru will attempt to answer some questions in greater detail:

1. What is your interpretation of a Smart City?
2. What kind of standards need to be designed and created?
3. What measures would reduce risk to investors and reduce trade barriers?
4. Which are the potential enablers to devise a holistic planning and implementation of the ambitious plan for 100 Smart Cities?
5. Which all sectors in Bangalore can implement clean and green technologies? Are such technologies feasible to implement?
6. Do Bruhat Bengaluru Mahanagara Palike and other corporations have the required capacities for a sustainable transition?
7. What would be the financial implications for Citizens? How can investments be funded, especially in infrastructure, deployment and maintenance?
8. What kind of R&D and industrial sector development is required to adopt and indigenize technologies?
9. In terms of best practices, what kind of roadmap are we looking at?
10. What kind of policy and programmes are required to support the building of Smart Cities?