



# *Semarang Delegation Visit Report*

*(27th to 29th November, 2012)*



 **TARU**

**TARU Leading Edge**

**December 2012**

## 1. BACKGROUND

Most of the Cities, especially in developing countries are growing at a rapid pace – causing increasing demands on basic resources like land and water, lifeline infrastructure and services. In India, with an unprecedented population growth, migration, increasing urban population and rapid urbanisation is adding pressure on natural resources, which is beyond the carrying capacity, especially in the urbanised regions. Also, migration and lack of access to lifeline services is impacting economic and social systems. Increasing fragmentation of the urban society and growing disparity in access to lifeline services accentuates urban poverty and manifestation of impacts of climate change on the resources and support systems required for a functional urban landscape are likely to further accentuate the situation.

Climate change is already increasing uncertainties in precipitation, temperatures and also leading to sea level rise. These changes are likely to accelerate over the remaining parts of the century and beyond and may be irreversible. The climate change is expected to impact our primary resources and living environment on a scale unprecedented in the human history. It is expected to create additional uncertainties in water and food sectors and also increase urban demand on energy. Along with the expanding cities, the growth in number of urban poor with limited access to basic resources is a matter of serious concern in most of the cities of developing countries.

Considering the close inter-relationship between issues of climate change (CC), urbanization and poverty, the Rockefeller Foundation has launched **Asian Cities Climate Change Resilience Network (ACCCRN)** covering India and South East Asia. ACCCRN programme was built around “building resilience to climate change in mid-sized cities in Asia with a focus on the poor and vulnerable”. The goal of the ACCCRN is to measurably enhance the resilience of selected partner cities’ institutions, systems and structures to the current and future climate risks, and through this, improve the lives of poor and vulnerable people.

## 2. OBJECTIVE OF THE VISIT

ACCCRN cities across the four Asian countries are facing similar challenges under climate change such as water scarcity, flooding, water quality and energy demand-supply gap. Learning through City to city networking allows cities to absorb and contextualize the lessons.

The main objective of the Semarang delegation visit to Surat was to provide an opportunity to share the key outputs and learning derived from the interventions under urban climate change resilience (UCCR) in the city of Surat. The interactions have been provided an opportunity to learn about urban resilience issues from the experience of Surat. The sub-objectives of visit are:

- To understand urban resilience issues in the context of Surat;
- To discuss new thinking and approaches to urban resilience by both the Surat and Semarang representatives;
- To initiate city-to-city network interactions and share approaches to climate resilience.

- To share results from ACCCRN activities to date and learning from the experiences of other cities and countries participating in ACCCRN.
- To strengthen city partner involvement in and clarifying city expectations and needs from ACCCRN.

### 3. THE GROUP

The delegation team had following distinguished members from Semarang city.

Name	Designation	Organization
Mr. Widodo	Chief of Health Agency	Semarang Municipality, Semarang City
Mr. Moh Arie Wurjanto	Lecturer, Epidemiology and Tropical Diseases a	Faculty of Public Health, University of Diponegoro, Semarang City

### 4. DISCUSSIONS AND OUTCOMES

#### Day 1: 27<sup>th</sup> November 2012

The delegation from Semarang City led by Mr. Widodo, Chief of Health Agency, Semarang visited TARU Leading Edge Gandhinagar on 27<sup>th</sup> November 2012. The delegation discussed on climate change risk at Surat and Indore and ACCCRN initiatives.

In an introductory session Shri Lalit Kumar Dashora (TARU Leading Edge) discussed about 'Urban climate change issues and initiatives taken under Asian Cities Climate Change Resilience Network (ACCCRN)'. His presentation highlighted the possible impacts of the climate change in the Surat and Indore including primary, secondary and tertiary impacts and linkages across the sectors and the concept of urban system resilience.

His presentation provided an introduction to the approaches, and processes adopted (in Phase I, II and III) and the outcomes of ACCCRN Surat and Indore. He also outlined the initiatives taken so far at city level and the likely key priorities for the cities initiatives. Shri Dashora presented on the "End to End Early Warning System for floods in Surat City". Presentation included the existing floods risk profile of the Surat city, early warning system methodology and its benefits to the city.

Dr. Uday Bhonde (TARU Leading Edge) discussed about the intervention project of "conjunctive water management". Dr. Bhonde informed that this project will deepen the engagement of communities in utilizing the natural (surface & groundwater) resources along with the water supplied by Narmada Water Scheme. Dr. Bhonde also informed that this project is designed to empower the communities to make use of locally available water resources like ground water along with the distant and energy intensive water resources.

Shri Piyush Shah (TARU Leading Edge) discussed about Urban Service Monitoring System (UrSMS) project. He informed that the overall aim of the project is to demonstrate the effectiveness of a simple and cost effective management information

and complaint redress system. The UrSMS project is targeted to improve the urban existing health and other services monitoring and complaint redress system of Surat. This project extends monitoring of these services further by involving the citizens in process through simple indicators. To enable this, Mobile phone based text messaging service for complaint recording and redress has been developed. This system apart from its regular use, can also act as an emergency service to collect information about the affected population and people in distress during floods and other emergencies.

**Day 2: 28<sup>th</sup> November 2012:**

On 28<sup>th</sup> November 2012, the delegation from Semarang visited Surat city and met the key city stakeholders of Surat City. The various meetings were aimed to discuss the on-going issues of climate change threat faced by both the cities. The delegation discussed with: Shri Kamlesh Yagnik (Hon. Vice President, Southern Gujarat Chamber of Commerce and Industry), Shri Paresh Patel (Hon. President, Southern Gujarat Chamber of Commerce and Industry, SGCCI), and Dr. Vikas Desai (Hon. Member, Surat Climate Change Trust). They also visited various places to see the interventions.

**Discussion with Shri Kamlesh Yagnik: Vice President SGCCI**

Shri Kamlesh Yagnik highlighted on growth and status of the city. He told that the city is largest producer of polished diamond in the world. Raw diamonds come from several countries including South Africa and Russia, which is polished by the diamond cutting and polishing units. Besides, Surat is also the largest producer of synthetic fiber based textiles in the country.

After briefing about city, Shri Yagnik explained about ACCCRN and the three pilot projects conducted in Surat under the ACCCRN viz. 1) National level Planning and Design competition; 2) Urban Services Monitoring System, and 3) Spatially explicit database for Vulnerable people. He concluded the presentation with existing barriers and challenges of the city of Surat. He further commended the initiatives taken under health sector as an example for other Indian cities.

Shri Yagnik also discussed about the vulnerability of Surat to climate change, the risks of floods and sea level rise, the initiatives taken by the city to change its approaches from reactive to proactive actions and also Surat's expectations from international, national and State in terms of funds, scientific knowledge, technology, decision support system, planning and technical inputs etc.

**Discussion with Shri Paresh Patel, President SGCCI**

Shri Paresh Patel discussed the role of Southern Gujarat Chamber of Commerce and Industry (SGCCI) in coordinating with corporate/industry, government and city administration. Shri Patel also discussed about its priorities. Mr. Patel informed that the city has fairly a young working class population – about 73% of the work force is less than 35 years of age. Surat city alone has more than 600,000 power-looms and about 475 dyeing and printing units. The city also runs one of the oldest businesses – Zardosi work (Embroidery work in Gold and Silver). The city of Surat/SGCCI is keen to initiate a dialogue and develop long term relationship with the Business Community of Semarang.

Mr. Widodo invited SGCCI to initiate a dialogue with Semarang Chamber of Commerce and Industry to apprise them about necessary climate change actions.

**Discussion with Dr. Vikas Desai:**

Dr. Vikas Desai described Surat's background of high risk susceptibility to filariasis and early establishment of the filaria surveillance system which was gradually converted into Malaria surveillance. She told that Surat set up a disease database since 20 years, which has made it possible to analyze relationship between climate, vector borne disease association and could find out important determinants for risk of high vector density and diseases transmission. The highlighted messages were: Climate change will impact on the vector characteristics and vector surveillance has to be maintained to establish link between climate and vector borne diseases. Apart from the vector borne diseases, the discussion with medical practitioners indicated that city has begun reporting increasing number of cases of respiratory diseases, hypertension etc. Dr. Desai emphasized on need for a long-term monitoring of vector borne diseases to proceed further for prediction on what will happen with a given range of temperature, humidity, precipitation etc. Requirement of continuous studies as well as maintaining a strong surveillance system was highlighted for a sustainable Urban Health System.

Dr. Desai also described the impact of city development over period of time and relationship with flood risk of the city. She substantiated her point by highlighting the constantly increasing level of roads and that other development is causing poldering effects leading to increasing vulnerability to the floods. She also discussed about Surat Municipal Corporation initiatives urban health.

Dr. Desai suggested to start urban health dialogues between ACCCRN cities and to have a formal network between these cities.

After the discussion with key stakeholders delegation members visited following locations in Surat city.

**Bapu Nagar  
(A flood prone settlement)**

Bapunagar, a slum (with more than 3,000 families) was located in the flood prone areas on West bank of river Tapi, along Nehru Bridge and Makkai Bridge.

Surat Municipal Corporation (SMC) relocated these families at safer location in at Kosad, which is a new relocation site in the outskirts of the city at safe location.



**Before relocation [Satellite Image of 14<sup>th</sup> April 2009]**

**After relocation [Satellite Image of 27<sup>th</sup> May 2012]**



<p><b>Weir-cum Causeway</b></p>	<p>Weir cum causeway (600 m long and 5 m deep) was constructed in 1995 across the river near village Rander to preserve the fresh water quality and to meet the growing domestic as well as industrial water demands. Further upstream; there are two major power plants, one nuclear power plant and another thermal power plant. A dam (Ukai) and a weir (Kakrapar) were constructed on the river to cater to the water requirements of these power plants.</p> <p>Tidal silting and pollution brought along with tides have been controlled in the river by this weir cum causeway. Ground water salinity ingress in the areas up stream of weir has been reduced considerably. Tidal erosion of river banks upstream of the weir is also stopped. This fresh water upstream of causeway cum weir supplies water through 11 intake wells and is a major source of water storage for Surat city.</p>	
<p><b>Kosad (Slum Relocation Site)</b></p>	<p>Surat Municipal Corporation has targeted to construct maximum number of houses for urban poor. For this purpose, plots kept reserved for economical weaker sections (EWS) housing purpose and lands Kosad and Bhestan are utilized.</p> <p>As a part of slum rehabilitation, Surat Municipal Corporation (SMC) has targeted to relocate the slums which are situated in flood prone area such as Bapu Nagar slum.</p> <p>All the infrastructure facilities like water supply, drainage, roads, streetlight, compound wall etc. are provided by SMC at newly relocated site.</p>	

**Day 3: 29<sup>th</sup> November 2012:**

On 29<sup>th</sup> November 2012 the delegation participated in 13<sup>th</sup> City Advisory Committee (CAC) meeting at Surat Municipal Corporation. The delegation was welcomed by Shri M. K. Das, IAS, Hon. Municipal Commissioner of Surat Municipal Corporation, Surat. All distinguished CAC members introduced themselves, after the welcome of Semarang delegation.

Shri M. K. Das in his opening remarks discussed on activities under the ACCCRN. He also discussed about complexities of urban climate change. Shri Das discussed that any climate change is likely to impact water, food and energy sectors and impact the city people and the economy. Along with the expanding cities, the growth in the number of urban poor, with limited access to basic resources is a matter of serious concern in most of the cities in developing countries. Shri Das informed about objective of the Semarang delegation visit.

Later the delegation members highlighted the development of the Semarang, which is a port city in Central Java province and the strategic decision of making it an environment and tourist City. Delegation also discussed about climate change risk and vulnerability of city.

On 29<sup>th</sup> November 2012, after a long CAC meeting delegation left Surat city for Mumbai.

**IEC Material Provided:**

1. City Resilience Strategy: Surat, Indore City
2. City Resilience Strategy Poster Surat
3. Intervention project Surat: EWS Brochure, EWS Flyer, UHCRC Flyer
4. Intervention project Indore: DSS, CWM Brochure
5. UrSMS Project Brochure
6. Pilot Projects Flyers
7. TARU Drive Brochure
8. ACCCRN Brochure



5. SNAPS OF DISCUSSIONS AND VISITS

SNAPS OF SEMARANG DELEGATION VISIT



*Warm Welcome  
Semarang Delegation*

*(27th to 29th November, 2012)*

**Mr. Widodo**

*Chief of Health Agency, Semarang City*

**Mr. Moh Arie Wurjanto**

*Lecturer,  
Epidemiology and Tropical Diseases  
Public Health Faculty, University of Diponegoro.*



 **TARU**

*Tuesday, 27th November 2012*



Delegation members during discussion with TARU Team on intervention projects under ACCCRN.



Delegation member discussing on UCCR initiatives and IEC material developed under ACCCRN.



Delegation member welcome by Shri M. K. Das, IAS, Hon. Municipal Commissioner in presence of Ms. P. Bharthi, IAS, Deputy Municipal Commissioner and Shri Jatin Shah, City Engineer and Managing Trustee, Surat Climate Change Trust.



Delegation member Mr. Widodo sharing Semarang Experience with Suart during City Advisory Committee (CAC) Meeting.



Delegation members with Shri Paresh Patel, Hon. President, The Southern Gujarat Chamber of Commerce & Industry (SGCCI) and member of Surat Climate Change Trust (SCCT).



Delegation members in discussion with Shri Kamlesh Yagnik, Hon. Vice President, The Southern Gujarat Chamber of Commerce & Industry (SGCCI) and Hon. Secretary, Surat Climate Change Trust (SCCT).



Delegation members in discussion with Dr. Vikas Desai, Technical Committee Member, Surat Climate Change Trust (SCCT).



Delegation members during their visit to Weir-Cum-Causeway. Weir-Cum-Causeway, a drinking water supply source for Surat City.



Delegation members in discussion with Shri Jatin Shah, City Engineer and Managing Trustee, Surat Climate Change Trust (SCCT).



13th City Advisory Committee Meeting at Surat and presence of two distinguished members of Semarang delegation.

## 6. AGENDA

## Semarang Delegation Agenda

Date: 27<sup>th</sup> to 29<sup>th</sup> November 2012

Sr. No.	Date	Activity/Meeting	Venue	Time	Remarks
1.	26 <sup>th</sup> Nov'12	Arrival at Gandhinagar and Rest day (as per mail)	Stay at Hotel Fortune Haveli	0945 Hrs	By flight
2.	27 <sup>th</sup> Nov'12	Discussion on UCCR initiatives at Surat and Indore in Phase II & III.	TARU Gandhinagar Office	0930 Hrs	
3.	27 <sup>th</sup> Nov'12	Travel	From Ahmedabad to Surat	1400 Hrs	By train
4.	27 <sup>th</sup> Nov'12	Arrival at Surat	Arrival at Surat and stay at Hotel Gateway	1800 Hrs	
5.	28 <sup>th</sup> Nov'12	Meeting with Mr. K. Yagnik, Hon. Vice President, SGCCI/ SCCT Secretary r/CAC Member	Majuragate Office	1030 Hrs	
6.	28 <sup>th</sup> Nov'12	Meeting with Mr. Paresh Patel, Hon. President SGCCI, SCCT Member	SGCCI Office	1200 Hrs	
7.	28 <sup>th</sup> Nov'12	Lunch	-	1330 to 1430 Hrs	
8.	28 <sup>th</sup> Nov'12	Meeting with Dr. Vikas Desai, CAC, SCCT Member	USHI Office	1430 to 1600 Hrs	
9.	28 <sup>th</sup> Nov'12	Site visit of Surat	Weir cum Causeway, Embankments on both side of river Old Bapu Nagar Slum Slum Relocation site-Kosad,	1600 to 1800 Hrs	Flexible adjustment if will get time during meeting or meeting will cancel
10.	29 <sup>th</sup> Nov'12	Discussion on UCCR initiatives at Surat in Phase II & III with Mr. G. K. Bhat	TARU Surat Office	1000 to 1100 Hrs	
11.	29 <sup>th</sup> Nov'12	CAC or SCCT Meeting	Conference Room, SMC Building	1100 to 1330 Hrs	

Sr. No.	Date	Activity/Meeting	Venue	Time	Remarks
12.	29 <sup>th</sup> Nov'12	Meeting with shri M. K. Das, Hon. Municipal Commissioner, Surat and Shri Jatin Shah, City Engineer/Managing Trustee, SCCT	SMC	Just after Meeting	
13.	28 <sup>th</sup> Nov'12	Lunch	-	1330 to 1430 Hrs	
14.	29 <sup>th</sup> Nov'12	Free time for personal visits	Surat City	1430 to 1630 Hrs	
15.	29 <sup>th</sup> Nov'12	Travel	From Hotel Gateway to Railway Station, Surat	1630 Hrs	By car
16.	29 <sup>th</sup> Nov'12	Departure from Surat	From Surat to Mumbai	1730 Hrs	By train