

# Conference Proceedings



## SECOND ANNUAL NATIONAL CONFERENCE ON URBAN RESILIENCE TO CLIMATE CHANGE

25-27 NOVEMBER 2017

Institute of Architects Bangladesh (IAB), Agargaon, Dhaka

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*Second Annual National Conference on Urban Resilience to Climate Change*

This publication is based upon the outcomes of the three days Second Annual National Conference on Urban Resilience to Climate Change and has been compiled from the notes taken by the respective rapporteurs. The publication is a summary from the organizers point of view, and does not necessarily express the views of each individual participant.

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## **1. ACKNOWLEDGEMENT**

The Second Annual National Conference on Urban Resilience to Climate Change has been jointly organized by International Centre for Climate Change and Development (ICCCAD) at Independent University, Bangladesh (IUB), Asian Cities Climate Change Resilient Network (ACCCRN) and Bangladesh Centre for Advanced Studies (BCAS) co-hosted by ActionAid Bangladesh, Awaas Sewa Pvt. Ltd., BRAC, Concern World Wide, CARE Bangladesh, Christian Aid, FSM Network Bangladesh and GIZ.

ICCCAD is grateful to the organizers and cosponsors who made the conference a grand success. ICCCAD is also thankful to all moderators, session chairs, panelists, and participants who participated in the three-daylong conference from the 25<sup>th</sup> to 27<sup>th</sup> of November, 2017.

ICCCAD wants to thank all the rapporteurs and volunteers for their enthusiastic participation and hard work, which materialized this conference into a successful one.

## 2. ABBREVIATIONS

ACCCRN	Asian Cities Climate Change Resilience Network
ADB	Asian Development Bank
AR5	Fifth Assessment Report of IPCC
BASA	Bangladesh Association of Social Advancement
BARI	Bangladesh Rice Research Institute
BBC	British Broadcasting Corporation
BCAS	Bangladesh Centre for Advanced Studies
BCC	Barisal City Corporation
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BDRCS	Bangladesh Red Crescent Society
BIDS	Bangladesh Institute of Development Studies
BIP	Bangladesh Institute of Planners
BMDF	Bangladesh Municipal Development Fund
BRAC	Bangladesh Rural Advancement Committee
BRUP	Building Resilience of the Urban Poor
BSMMU	Bangabandhu Sheikh Mujibur Rahman Agricultural University
BUET	Bangladesh University of Engineering and Technology
BUF	Bangladesh Urban Forum
C40	Cities Climate Leadership Group
CARE	Corporative for Assistance and Relief Everywhere
CBOs	Community Based Organizations
CDC	Centre for Disaster Control and Prevention
CDP	Centre for policy Dialogue
CEO	Chief Executive Officer
CGC	Centre for Global Change
COP22	Conference of Parties 22
CPRDBD	Centre for Participatory Research Bangladesh
CRS	Climate Resilience Strategy
DDM	Department of Disaster Management

DoE	Department of Environment
DMCC	Disaster Management and Climate Change
DPHE	Department of Public Health and Engineering
DU	Dhaka University
DURP	Department of Urban and Regional Planning
EU	European Union
FbF	Forecast based Financing
FSM	Faecal Sludge Management
GoB	Government of Bangladesh
7 <sup>th</sup> FYP	7 <sup>th</sup> Five Year Plan
8 <sup>th</sup> FYP	8 <sup>th</sup> Five Year Plan
GCC	Gazipur City Corporation
GCF	Global Climate Fund
GDP	Gross Domestic Product
GED	General Economic Division
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GRC	German Red Cross
HFHB	Habitat for Humanity Bangladesh
HKI	Helen Keller International
IAB	Institute of Architects Bangladesh
IAP	ICLEI ACCCRN Process
ICCCAD	International Centre for Climate Change and Development
ICDDRB	International Centre for Diarrhoea Disease Research, Bangladesh
IDMVS	Institute of Disaster Management and Vulnerability Studies
IDS	Institute of Development Studies, UK
IFRC	International Federation of Red Cross and Red Crescent Societies
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
IUB	Independent University, Bangladesh
IWFM	Institute of Water and Flood Management
JICA	Japan International Cooperation Agency
KCC	Khulna City Corporation

KfW	Kreditanstalt für Wiederaufbau
LEED	Leadership in Energy and Environmental Design
LGED	Local Government Engineering Department
LGRD	Local Government and Rural Development Cooperatives
LGI	Local Government Institutes
LGNET	Local Government Network
MAB	Municipal Association of Bangladesh
MAWTS	Mirpur Agricultural Workshop and Training School
MHT	Mahila Housing Sewa Trust
MIST	Military Institute of Science and Technology
MoDMR	Ministry of Disaster Management and Relief
MSSUS	Manob Sheba O Shamajik Unnayan Shangstha
MoEF	Ministry of Environment and Forest
NAPA	National Adaptation Programme of Action
NCC, B	Network on Climate Change Bangladesh
NDBUS	Nagar Daridra Basteebashir Unnayan Sangstha
NGOs	Non-government Organizations
NUPRP	National Urban Poverty Reduction Program
PET	Polyethylene Terephthalate
PIP	Participatory Identification of the Poor
PRA	Participatory Research Appraisal
PROKAS	Promoting Knowledge for Accountable Systems
RCC	Rajshahi City Corporation
RCCC	Red Cross / Red Crescent Climate Center (RCCC)
RMG	Readymade Garments
SDGs	Sustainable Development Goals
SDS	Shariatpur Development Society
SEEP	Social and Economic Enhancement Programme
SLDs	Shared Learning Dialogues
SNV	Smart Development Works
SOD	Standing order on Disaster
SREDA	Sustainable and Renewable Energy Development Authority



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SSSF	Sustho Shikkha Sheba Foundation
UDD	Urban Development Directorate
UDP	Urban Development Programme
UNISEF	United Nations Childrens' Fund
ULAB	University of Liberal Arts Bangladesh
UMIMCC	Urban Management of Internal Migration due to Climate Change
UNFPA	United Nations Population Fund
UNDP	United Nations Development Program
UPPR	Urban Poverty Reduction programme
VERC	Village Education Resource Center
WB	World Bank
WCED	World Commission on Environment and Development
WFP	World Food Programme
WSUP	Water & Sanitation for the Urban Poor
YPSA	Young Power in Social Action

## 3. BACKGROUND

### 3.1 Urban Resilience to Climate Change Conference

Recent decades have seen an increase in urban climate change risks, vulnerabilities and impacts that will have compound effects on a broader spectrum; heat stress, droughts, extreme precipitation, floods, waterlogging, water scarcity and air pollution, to name a few.

Much of the key climatic risks are concentrated in urban areas (AR5, IPCC). Cities of Bangladesh are also increasingly prone to climate change hazards and impacts. The urban population in Bangladesh is growing rapidly and urbanization has not been able to follow a planned pattern. By 2035, nearly 110 million people are expected to inhabit urban areas in the country, constituting about half of the total population. High population influx, low adaptive capacity to development, over-exploitation of natural resources and increasing magnitude and frequency of climate disasters made the cities more vulnerable.

The rising climatic risks and complexities demand a special focus on urban resilience and climate change adaptation. Several organizations in Bangladesh have taken the initiative to enhance urban resilience. However, there is a significant gap in the present framework to reduce the risk and vulnerabilities, and lack initiatives to make cities more resilient to climate change.

In the above context, Asian Cities Climate Change Resilience Network (ACCCRN), International Center for Climate Change and Development (ICCCAD), Bangladesh Centre for Advanced Studies (BCAS) and multiple partners have organized the Second Annual National Conference on Urban Resilience to Climate Change from 25 to 27 November 2017 at the Institute of Architects Bangladesh (IAB), Dhaka. The conference aims at sharing research knowledge, identifying knowledge gaps in policies and action plans, and explore ideas and options for multi-stakeholder collaboration. In the process, the conference also expected to increase the capacity of city corporations, municipalities and CBOs on the local level to build urban resilience.

### 3.2 Outcomes and Outputs

The second annual national conference on urban resilience to climate change will focus on identifying the necessary policy issues and national and local action plans to make cities more resilient to climate change.

A proceedings document will be prepared and distributed among participants and beyond. This will allow the opportunity to share the findings and the opinions of the participants as well as different stakeholders to identify pathways to make cities and municipalities of Bangladesh more climate resilience.

## 4. BIOGRAPHIES

	<p><b>Dr. Saleemul Huq</b> Director, ICCCAD at IUB</p> <p><i>Session Chair, Inaugural Session; Session Chair, First Plenary Session; Session Chair, Fifth Plenary Session; Session Chair, Sixth Plenary Session; Session Chair, Concluding Session</i></p>		<p><b>John I. Carruthers</b> Ph.D., Director, Sustainable Urban Planning Program College of Professional Studies, The George Washington University</p> <p><i>Keynote presenter, Inaugural session</i></p>
	<p><b>Dr. Kamal Uddin Ahmed</b> Member, Socio Economic Infrastructure Division, Planning Commission, Ministry of Planning</p> <p><i>Chief Guest, Inaugural Session</i></p>		<p><b>Abdul Malek</b> Secretary Local Government Division Ministry of LGRD</p> <p><i>Chief Guest, Concluding Session</i></p>
	<p><b>H.E. Sidsel Bleken</b> Honourable Ambassador Royal Norwegian Embassy</p> <p><i>Special Guest, Inaugural Session</i></p>		<p><b>Dr. Atiq Rahman</b> Executive Director, BCAS</p> <p><i>Session Chair, PS1</i></p>
	<p><b>Golam Rabbani</b> Fellow, Bangladesh Centre for Advanced Studies (BCAS)</p> <p><i>Keynote Presenter, PS1</i></p>		<p><b>Dr. Md. Sirajul Islam</b> Professor, School of Engineering &amp; Physical Sciences, North South University</p> <p><i>Panelist, PS1</i></p>
	<p><b>Ar. Tasneem Tariq</b> LEED Accredited Professional, LEED AP BD+C (U.S. Green Building Council) and Assistant Professor, Department of Architecture, (BUET)</p> <p><i>Panelist, PS1</i></p>		<p><b>Dr. Ahsan Uddin Ahmed</b> Executive Director The Centre for Global Changes</p> <p><i>Keynote presenter, First Plenary Session; Panelist, Parallel PS4</i></p>
	<p><b>Mostafa Quaium Khan</b> Advisor, Bangladesh Urban Forum</p> <p><i>Session Chair, PS2; Session Chair, Third Plenary Session; Session Chair, PS2, Panelist, Sixth Plenary Session</i></p>		<p><b>Hasin Jahan</b> Country Director, Practical Action Bangladesh</p> <p><i>Moderator, Second Plenary Session</i></p>

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	<p><b>Professor Dr. Feroze Ahmed</b> Professor Emeritus Stamford University</p> <p><i>Keynote Presenter, Second Plenary Session</i></p>		<p><b>Dr. Md. Khairul Islam</b> Country Director, Water Aid, Bangladesh</p> <p><i>Session Chair, Second Plenary Session</i></p>
	<p><b>Mr Shafiqul Islam Akand</b> Superintending Engineer Local Govt. Engineering Division, Ministry of LGRD</p> <p><i>Panelist, Second Plenary Session</i></p>		<p><b>Mirza Shawkat Ali</b> Director, Climate Change and International Convention Dept. of Environment</p> <p><i>Panelist, Second Plenary Session</i></p>
	<p><b>Dr Md. Abdul Mueyed</b> Additional Director Dept. of Agricultural Extension Ministry of Agriculture</p> <p><i>Panelist, Second Plenary Session</i></p>		<p><b>Mr. Ulf Neupert</b> Team Leader, Urban Management of Internal Migration due to Climate Change</p> <p><i>Keynote Speaker, Third Plenary Session</i></p>
	<p><b>Dr. Md. Shakil Akther</b> Professor Department of Urban and Regional Planning Bangladesh University of Engineering and Technology</p> <p><i>Keynote speaker, Third Plenary Session</i></p>		<p><b>Mr. Kazi Md. Ibrahim</b> Asstt. Director Social Welfare Department, Dinajpur</p> <p><i>Keynote Speaker, Third Plenary Session</i></p>
	<p><b>Mosaddek Hossain Bulbul</b> Mayor Rajshahi City Corporation</p> <p><i>Designated Discussant, Third Plenary Session</i></p>		<p><b>Md. Moniruzzaman Moni</b> Mayor Khulna City Corporation</p> <p><i>Designated Discussant, Third Plenary Session</i></p>
	<p><b>Rokeya Rahman,</b> Chairperson Federation of Community Development Committee, Khulna</p> <p><i>Designated Discussant, Third Plenary Session</i></p>		<p><b>Hazera Khatun</b> Joint Secretary CDC Town Federation Khulna</p> <p><i>Designated Discussant, Third Plenary Session</i></p>

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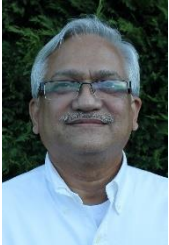


	<p><b>Sarder Shafiqul Alam</b> Coordinator, Urban Climate Change Programme, ICCCAD at IUB ; Country Coordinator, ACCCRN-ICCCAD Bangladesh</p> <p><i>Moderator, PS2; Keynote Speaker, Fifth Plenary Session; Keynote Speaker, Concluding Session</i></p>		<p><b>Dr. Akter Mahmud</b> Professor, Department of Urban and Regional Planning, Jahangirnagar University</p> <p><i>Keynote Speaker, PS3</i></p>
	<p><b>Dr. Saiful Momen</b> Department of Environmental Science and Management, North South University</p> <p><i>Keynote Speaker, PS3</i></p>		<p><b>Md. Tazkin Ahmed</b> Mayor Shatkhira Municipality</p> <p><i>Keynote Speaker, PS3</i></p>
	<p><b>Professor Ainun Nishat</b> Professor Emeritus, Centre for Climate Change and Environmental Research, BRAC University</p> <p><i>Discussant, PS3</i></p>		<p><b>Hasina Mushrofa</b> Programme Head, BRAC Urban Development Programme</p> <p><i>Discussant, PS3</i></p>
	<p><b>Zulfiqar Ali</b> Mayor, Mayor, Mongla Port Municipality, Bangladesh</p> <p><i>Discussant, PS3; Panelist; Fifth Plenary Session</i></p>		<p><b>Md. Motaher Hossain</b> Mayor, Sonaimuri Municipality, Bangladesh</p> <p><i>Discussant, PS3</i></p>
	<p><b>A. Z. M. Menhazul Haque</b> Mayor Parbatipur Municipality</p> <p><i>Discussant, PS3</i></p>		<p><b>Palash Mondal</b> Coordinator: Resilience and Climate Change, Team Leader – Building Resilience of the Urban Poor project, CARE Bangladesh <i>Facilitator, third plenary session</i></p>
	<p><b>Humaira Aziz</b> Director-Women and Girls Empowerment CARE Bangladesh</p> <p><i>Moderator, PS4</i></p>		<p><b>Nurun Nahar Chowdhury</b> Deputy Director Department of Disaster Management (DDM)</p> <p><i>Panelist, PS4</i></p>



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	<p><b>Mr. Ashekur Rahman,</b> Urban Programme Analyst UNDP</p> <p><i>Panelist, PS4</i></p>		<p><b>Md. Jubaer Rashid</b> Senior Project Officer (Sustainability Management) Organization: ICLEI – Local Governments for Sustainability, South Asia</p> <p><i>Panelist, Fifth Plenary Session</i></p>
	<p><b>Farah Kabir</b> Country Director, ActionAid Bangladesh</p> <p><i>Chair and Moderator, Fourth Plenary Session</i></p>		<p><b>Ahsan Habib Kamal</b> Mayor, Barisal City Corporation</p> <p><i>Panelist, Fourth Plenary Session</i></p>
	<p><b>Dr. A K M Abul Kalam</b> President, Bangladesh Institute of Planners and Professor, Department of Urban and Regional Planning, JU</p> <p><i>Panelist, Fourth Plenary Session</i></p>		<p><b>Khurshid Alam</b> Assistant Country Director, UNDP Bangladesh</p> <p><i>Panelist, Fourth Plenary Session</i></p>
	<p><b>Dr. Nurun Nahar</b> Deputy Chief Programming Division Planning Commission Ministry of Planning</p> <p><i>Panelist, Fourth Plenary Session</i></p>		<p><b>Ms. Bijal Brahmbhatt</b> Director, Awaas Sewa Private Limited</p> <p><i>Keynote Presenter, PS5</i></p>
	<p><b>Bharati Bhonsal</b> Program Manager, Mahila Housing Sewa Trust</p> <p><i>Keynote Presenter, PS5</i></p>		<p><b>Tasfia Tasnim</b> Research Officer International Centre for Climate Change and Development (ICCCAD) at Independent University, Bangladesh (IUB)</p> <p><i>Keynote Presenter, PS5</i></p>
	<p><b>Quamrul Islam</b> Manager, Communications &amp; Institutional Strengthening, Nari Maitree</p> <p><i>Keynote Presenter, PS5</i></p>		<p><b>Sakeb Nabi</b> Country Director Christian Aid, Bangladesh</p> <p><i>Moderator, PS6</i></p>

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	<p><b>Raymond Zingg</b> Forecast based Financing Delegate at German Red Cross</p> <p><i>Keynote presenter, PS6</i></p>		<p><b>Afsana Haque</b> Professor and Head Department of Urban and Regional Planning Bangladesh University of Engineering and Technology</p> <p><i>Panelist, PS6</i></p>
	<p><b>Dr. Ahmadul Hassan</b> Technical Advisor of Red Cross / Red Crescent Climate Center (RCCC)</p> <p><i>Panelist, PS6</i></p>		<p><b>Sanjib Biswas Sanjoy</b> Programme Manager, Bangladesh</p> <p><i>Panelist, PS6</i></p>
	<p><b>Dr. Ishrat Islam</b> <b>Professor</b> Department of Urban and Regional Planning Bangladesh University of Engineering and Technology</p> <p><i>Keynote presenter, Sixth Plenary Session</i></p>		

## 5. Methodology

### 5.1 Program Overview of the Second Annual National Conference on Urban Resilience to Climate Change

		Day 1: 25 November, 2017 (Saturday)	Day 2: 26 November, 2017 (Sunday)	Day 3: 27 November, 2017 (Monday)	
<b>MORNING</b>	08:30-09:30	REGISTRATION		REGISTRATION	
	09:30-11:00	<b>Inaugural Session</b> Welcome address: Sarder Shafiqul Alam, Coordinator, ICCCAD Keynote presenter: Dr. John I. Carruthers, the George Washington University Special Guest : H.E. Sidsel Bleken, Ambassador, Norway Chief Guest: Dr. Kamal Uddin Ahmed, Member, Socio Economic Infrastructure Division, Planning Commission, Ministry of Planning Session Chair: Dr. Saleemul Huq, Director, ICCCAD Room: Auditorium	<b>Plenary Session 3:</b> <b>Concepts of Building Resilience and Inclusion in Bangladeshi Cities</b> Host: GIZ Room: Auditorium	<b>Parallel Session (P5):</b> <b>Climate Change and Urban Woman and Children: Impacts and Implications for Adaption in Low and Middle Income Communities</b> Host: Awaas Sewa Room: Seminar Room	<b>Parallel Session (P6):</b> <b>“Prioritizing climate change adaptation and local level resilience in cities in Bangladesh”</b> Host: Christian Aid Room: Auditorium
	11:00-11:30	<b>TEA BREAK</b>			
	11:30-13:00	<b>Plenary Session: 1</b> <b>Mayors Round Table on “The implications of population growth and urbanization for climate change</b> Host: Concern Worldwide Room: Auditorium	<b>Parallel Session (P3):</b> <b>City Leadership and Multi-stakeholder Partnership for Climate Resilient Urban Development</b> Host: BRAC Room: Auditorium	<b>Parallel Session (P4):</b> <b>Role of Women in Building Urban Resilience: CARE Bangladesh Experience</b> Host: CARE Bangladesh Room: Seminar room	<b>Plenary Session 6:</b> <b>Resilience to Climate Change and Problems to Solution</b> Host- ICCCAD Room: Auditorium
<b>AFTERNOON</b>	13:00-14:00	<b>LUNCH BREAK</b>			<b>Concluding Session (13:00 – 14:00)</b> <b>Summary findings and sharing plan for the next annual conference</b> Chief Guest: Abdul Malek, Secretary, LGRD Ministry Session Chair: Dr. Saleemul Huq, Director, ICCCAD Room: Auditorium
	14:00-15:30	<b>Parallel Session (P1):</b> <b>Climate Change and major cities in Bangladesh: Urgent financing for improved resilience!</b> Host: BCAS Room: Auditorium	<b>Parallel Session (P2):</b> <b>Session: Out of the box</b> Host: ICCCAD Room: Seminar room	<b>Plenary Session 4:</b> <b>Climate resilient cities: In Search of an Alternative</b> Host: ActionAid Room: Auditorium	
	15:30-16:00	<b>TEA BREAK</b>			<b>Lunch</b>
	16:00-17:30	<b>Plenary Session 2</b> <b>Transforming waste into resources: Bangladesh perspective and prospects</b> Host: FSM Network Room: Auditorium	<b>Plenary Session 5:</b> <b>Lessons Learnt on Urban Climate Change Adaptation and Resilience from ACCCRN Partners in Bangladesh</b> Host: ACCCRN-ICCCAD Bangladesh Room: Auditorium		



## 5.2 Inaugural Session

<b>Moderator:</b>	Dr. Feisal Rahman
<b>Welcome address:</b>	Sarder Shafiqul Alam
<b>Keynote speaker:</b>	Dr. John I. Carruthers
<b>Special guest:</b>	H.E. Sidsel Bleken
<b>Chief Guest:</b>	Dr. Kamal Uddin Ahmed
<b>Session Chair:</b>	Dr. Saleemul Huq



H.E. Sidsel Bleken's speech at the inaugural session

The inaugural session kicked off with **Dr. Feisal Rahman** speaking briefly about the nexus of climate change and urbanization. While cities are responsible for the lion's share of global greenhouse emissions, being centers of economic growth and human development, cities face a myriad of threats due to climate change. They also happen to be the first responders to extreme events. In light of this, the conference has been organized to provide a platform for collective discussion on different aspects of urban resilience to climate change. Dr. Rahman then welcomed the participants and introduced the honorable guests and chair for the session.

**Mr. Sarder Shafiqul Alam** in his welcome address spoke about the background of the conference. The Second Annual National Conference on Urban Resilience to Climate Change has been organized by ICCCAD, ACCCRN and BCAS with support from several partner organizations in the country who are working on the issue. Mr. Alam remarked that there is currently a dearth of research on the interrelationship between urban development and climate change in the country. By bringing together a wide array of relevant actors under one platform to promote knowledge generation and sharing on the topic, this conference marks a step in the right direction. Mr. Alam concluded his address with a brief overview of the conference programme for the next three days.

**Dr. John Carruthers**, in his keynote speech titled "Balanced Growth in Bangladesh: Resilience via a National Urban Hierarchy" presented some empirical evidence on the urban growth patterns in Bangladesh and shed light on potential shortcomings and opportunities. With around a fifth of the country's population being based in and around Dhaka, he highlighted that the population distribution in Bangladesh is quite uneven. This, from an urban planner's perspective indicates largely unbalanced growth. Referring to the Central Place Theory and Zipf's law, Dr. Carruthers demonstrated the reasons behind such growth. He then displayed a series of photographs from different cities in the country to show the different characteristics each city possesses. Khulna, for instance, offers all the services that Dhaka does, yet the city is relatively low-key and does not attract as many people. Dr. Carruthers wrapped up his presentation with some possible solutions to the problem. Empirical evidence suggests that Bangladesh currently has a healthy national urban hierarchy which follows standard human ecological patterns and this can be leveraged to develop a national system of agglomeration economies. It would be

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important to promote infrastructure linkages among urban centers to help facilitate the movement of people and commerce. Bangladesh already has well developed rail, road and boat networks and investing in such infrastructure will enhance the mobility of people. Furthermore, it would be necessary to promote local quality of life and attachment to place to help establish local networks and connections which in turn will influence people's settlement in the area and also enhance local productivity. Most importantly, Bangladesh would need to invest in human capital, which appears to be the country's greatest asset.



John I. Carruthers giving the keynote presentation in front of an audience in the Inaugural session

Her Excellency **Sidsel Bleken** began by referring to climate change as the most pressing issue facing humankind at the moment. In the coming decades, cities will be home to majority of the global population and therefore it is imperative that urban centers begin to identify ways to tackle climate change. Although Bangladesh has demonstrated a good track record so far in disaster risk reduction, it has mostly been limited to rural and coastal areas. For cities to effectively combat the impacts of climate change, efficient management of resources and concerted effort from all involved actors will be required, and particular focus must be given to the urban poor. She then remarked about Bangladesh's immense potential for human capital and the crucial role future generations can play in building smart cities that are resilient to climate change.

**Dr. Kamal Uddin Ahmed** had previously been the secretary of the Ministry of Environment and Forests and had dealt with manifold environmental issues firsthand. He began by highlighting how discussions around climate change at the international platform have evolved over the years and people are now beginning to take climate change seriously. He mentioned that despite Bangladesh's high vulnerability to climate change, the country has taken numerous steps to address the issue. He referred to the floods of 1988 that inundated all the major urban areas of the country resulting in large economic losses. This event served as an eye-opener for the nation to actively manage environmental hazards, particularly in urban areas. He remarked that as the economic, social and political dynamics of cities continuously evolve, their risks and vulnerabilities also change accordingly. Cities will therefore need to constantly adapt their action plans for combating climate change. He agreed with the set of recommendations proposed by Dr. Carruthers. As Bangladesh aims to graduate to a Middle Income Country in the coming years, it is imperative cities in the country become resilient to climatic shocks and stresses. This calls for greater investment in infrastructure and social services. Pressure from large cities will also need to be distributed. Also, there needs to be investments in human capital due to its potential for massive demographic dividend. Dr. Ahmed concluded his speech by thanking the organizers of the conference and avowing wholehearted support of the Government of Bangladesh towards the platform.

The chair in his closing remarks highlighted that in order to promote urban resilience in Bangladesh, the country would first need to focus on ensuring healthy and balanced urban growth patterns. The challenge would be to develop a set of cities that have the services and infrastructure necessary to withstand the

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impacts of climate change. Also as human beings are at the center of resilience, their adaptive capacities will also need to be developed. He mentioned that while the previous year's conference focused on understanding urban problems as a result of climate change, this year's edition will focus on identifying possible solutions. The chair hoped that by the end of the conference, a set of pilot ideas and activities will be generated that can then be shared with relevant government agencies to be taken forward at the policy level.



Dr. Saleemul Huq's speech at the inaugural session

### 5.3 Technical session

The Six plenary sessions were titled:

- Mayors Round Table “The implications of population growth and urbanization for climate change”
- Transforming Waste into Resources for Sustainable Cities
- Concepts of Building Resilience in a City
- Lessons Learnt on Urban Climate Change Adaptation and Resilience from ACCRN partners in Bangladesh
- Climate resilient cities: An Alternative Future
- Resilience to Climate Change and Problems to Solutions

The Six parallel sessions were titled:

- Climate Change and major cities in Bangladesh: Urgent financing for improved resilience!
- Out of the box session
- City Leadership and Multi-stakeholder Partnership for Climate Resilient Urban Development
- Women in building urban resilience- CARE Bangladesh Experience
- Climate Change and Urban Woman and Children: Impacts and Implications for Adaption in Low and Middle Income Communities
- Prioritizing Climate change Adaptation and Local Level resilience in Cities in Bangladesh

## 6. Output and Discussion of Technical Sessions: Parallel and Plenary

### 6.1 First Plenary Session: Mayors Round Table on “The Implications of population Growth and Urbanization for Climate Change”

#### Host/Co-sponsor: Concern Worldwide

The first plenary session of the Second Annual National Conference on Urban Resilience to Climate Change discussed the implications of population growth and urbanization for climate change. To enhance urban resilience, one of the key challenges is to reduce risks and improve urban environment for the poor and marginalized population. At the same time, it is also necessary to create space for their participation and contribution in the process. Political will and vision of the Mayors and other urban policy makers are central to lead the transition to equitable, safe, healthy and resilient cities. The session was arranged to foster that political will in the local government to combat climate change from a local perspective; especially to facilitate discussions exploring thoughts and experience of urban policy makers including Mayors, Members of the Parliament and other urban stakeholders. The session built a common understanding and garnered recommendations around the challenges of rapid urbanization and in making cities in Bangladesh resilient to climate change.



Keynote presentation in the plenary session

**Keynote presenter:** Dr. Ahsan Uddin Ahmed

**Designated Mayors:** Mr. Syed Jahangir Alam, Md. Motahar Hossain, Mr. Nur Uddin Al Mamun, Mr. Khondokar Murshed Rahman, A.Z.M. Menhazul Haque, Md. Mizanur Rahman, Md. Saifur Rahman Razzak.

**Session Chair:** Dr. Saleemul Huq

The session opened with the keynote presentation from **Dr. Ahsan Uddin Ahmed** highlighting how climate change will exacerbate the already existing issues of population growth and rapid urbanization. In his keynote presentation, he highlighted the Dengue epidemic that struck in the year 2000 in Bangladesh. When temperature rises, different vector borne diseases also rise in urban areas, causing failure in the existing public health system. Intensification of urban Heat Island, heat stress, also aggravates the existing problem. At present, about 26-27% people across the country live in urban centres including the major cities as well as semi-urban towns. Bangladesh will experience uncontrolled population growth, rapid urbanization and unavoidable climate change in the coming decades.

Growth in urbanization has been rising more than ever, compared to data from past 50 years, and it is expected to increase at an even faster pace in the years to come. So, the question is how urbanization maybe impacted by Climate Change. The first impact is global warming: the earth is warming up gradually, and evidences show that hot periods are becoming hotter. Another impact of climate change is apparent

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in the health sector, after the intensification of Vector Borne diseases. The first outbreak was seen in 2000 after the rapid Dengue breakout all over the country. Apart from health issues and weather patterns, climate change will as well impact the consumption pattern of the city dwellers. Prolonged summer will increase the consumption of electricity; hence contribute more to the heating of the earth and use of fossil fuels.

Rainfall pattern will be greatly hampered. Torrential rainfall will threaten the risk of mudslide in the hilly terrain as well as cause drainage congestion. A recent study suggests that 30mm rainfall over 24 hours in Dhaka alone can cause water log in 16 areas of the city. Dhaka and Chittagong have already shown evidence of erratic rainfall patterns. Lately, a downpour of up to 500mm over only 6 hours of duration has been recorded. Flood caused due to heavy rainfall will also be prolonged and will worsen.

All these evidences suggest that our existing city system is not ready to tackle climate change associated erratic weather patterns. We need immediate actions to make our cities climate resilient. It has become more important than ever that the administrative bodies in the cities embark on advocating climate resilient plans. We have to shift from the existing capital city centric development to more decentralized development through empowering the local governments. More people from the hinterland will tend to migrate in as a result of autonomous adaptation options. Alternate livelihood options shall be created. Competition for access to available resources in the cities will increase, and lack of alternate livelihood option may lead to anti-social activities along with other issues.

### **Open Discussion:**

The next segment of the session opened the floor for recommendations from the honourable Mayors. More or less, all the municipalities are prone to floods due to the current heavy rainfall pattern. Although each municipality has its own city wide master plan, action for implementation is meager. The current guideline fails to serve climate resilience and participatory approaches. In order to raise awareness among people and to make the city plans sustainable, the local governments shall be provided with administrative power.



Mayor's discussion segment in the plenary session

A bottom-up approach leading all the way from the small cities will not only make the smaller cities more resilient, it will also lessen the pressure of the growing rural-urban migration from Dhaka.

During the open discussion, practitioners in line with the Mayors agreed upon a more decentralized system. It also came out that the local governments shall be provided with regular trainings to comprehend climate change and develop necessary skill sets to incorporate climate resilient planning into the existing city master plans. It has also been recommended that each Mayor shall undertake the task to review the existing master plans biannually and reinforce the plan of action at best in every 5 years. A monitoring cell could be formed to monitor and evaluate the situation, as policy may only work if executed. Along with a stronger urban policy, we have to build a strong research base to address the



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issues that climate change may cause to our cities, and the possible solutions to tackle the negative impacts.

In response to the open discussion, the panelists suggested that political commitment to implement sustainable urban system is more important than to immediately devising guidelines. Also the platform of this conference could be reformed and devised as a joint network across the country.

### Key Recommendations:

- To formulate a climate resilient guideline for urban sector, and find pathways to implement the existing Pourashava master plans by reinforcing plan of action in every year;
- To build monitoring cell, joint urban networking platform (the Urban Resilience conference), and strong research base for promoting collaborative advocacy and evidence based study;
- To reduce pressure from the capital city through decentralization by shifting industries to other regions based on suitability, as well as create alternate livelihood options;
- Overall political commitment needs to be improved, and ensure accountability of government funds to facilitate contingency plans.



A view of participants during the plenary session

### 6.2 Parallel Session P1: Climate Change and Major Cities in Bangladesh: Urgent Financing for Improved Resilience!

#### Host/ Co-sponsor: BCAS

The parallel session on Urban Climate Finance brought about different experts, urban thinkers, academics and government stakeholders to talk on the urgent need to discuss the allocation of Green Climate Fund for addressing financial crisis in cities in urban areas. There are various funds in Bangladesh but a few of them can distinguish between climate finance and development finance. The government needs to take the lead on promoting climate smart technology. In addition to that, there are master plans for municipalities and city corporations but no proper implementation of those plans. The climate change component is missing from those plans as well. The people who are associated with the preparation of the plan need capacity building training on various issues of climate change.

**Keynote Presenter:** Golam Rabbani

**Panelists:** Ar. Tasneem Tariq, Professor Sirajul Islam

**Session Chair:** Dr. A. Atiq Rahman



Session chair and Panelists of the parallel session

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The session chair started the session by saying that while everyone is aware of the many existing problems related to urban climate change, urgent financing will be one major issue for the upcoming times.

Following the introduction, **Golam Rabbani**, Fellow in BCAS shared the findings on the presentation titled “Climate Change and major cities in Bangladesh: Urgent financing for improved resilience” where he mainly discussed two issues. One was urgent financing to address climate change and the other was urgent financing for cities.

Climate Induced Hazards like temperature variation (including heat waves and cold waves), erratic rainfall, flood and water logging, cyclones, salinity intrusion and sea level rise are increasing vulnerabilities of major cities like Dhaka, and Chittagong. When talking about the vulnerability, exposure, sensitivity and adaptive capacity are three important issues. He mentioned various Global and National Strategy(s) on cities or urban areas. And while talking about the SDGs, he stated that if other goals can be achieved, then Goal 11 (Sustainable Cities and Communities) which is particularly focusing on the urban area would be easy to attain. He also said that Bangladesh is doing well on the policy issues. The third and fourth thematic area of BCCSAP states on the need to “Plan, design and construct urgently needed new infrastructure (e.g., cyclone shelters, coastal and river embankments and water management systems; urban drainage systems, river erosion control works, flood shelters) to meet the changing conditions expected with climate change. The Seventh Five Year Plan (7<sup>th</sup> FYP) also focused on some key priorities related to major cities/urban areas mentioning the reducing urban traffic congestion with focus on Dhaka and Chittagong cities, improving air quality in Dhaka and other large cities and enact Clean Air Act and restoring Canals and natural water flows of Dhaka and other major cities.

When talking about the domestic investment regarding the climate public expenditure and institutional review, 1.1% is being used to address climate change. In 2017, the climate protection and development budget report says that 0.7% of the total GDP is to address climate sensitivity. Bangladesh Climate Change Trust Fund (BCCTF) has given large amounts for the urban protection. Around 70% of urban adaptation aid is dedicated to “hard” infrastructure while about 10% goes to “soft” measures to support capacity building. Institutional Capacity and Leadership and Skill Development are extremely important to expedite access to finance urban adaptation.



Keynote Speech in the parallel session

The presentation was followed by a panel discussion. **Ar. Tasneem Tariq**, Assistant Professor, Department of Architecture, BUET pointed out the facts of unusual weather pattern and the increase of minimum weather temperature. She said that temperature, relative humidity and wind flow are important issues. In design, the proper distribution of light, wind and water is important. She talked about Leadership in Energy and Environmental Design (LEED), which rates the simulation of infrastructure. She is thinking of incorporating it into the design level. She also emphasized the importance of considering the local climate and local environment in selecting local site and how to address those issues.

Heat island effect is one alarming topic. She is suggesting restoring the park and urban places as green spaces if there is rise in air temperature. She put the example of her student’s masters’ thesis where they

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have done the research on creating green corridor by connecting parks and open spaces or canal restore and canal corridor. She emphasized the importance of water saying that it is a blessing for us. With proper rain water harvesting, rain water can be restored and used for sanitation purposes. She mentioned the idea of waste segregation at the source. Waste can be used as fertilizer which can turn into a useful output.

**Professor Sirajul Islam** who is a Professor of Civil and Environmental Engineering in North South University also mentioned the urban heat island issue. For him, the fundamental concept of the solution should be decentralization.

### **Open Discussion:**

The open discussion session following the panel discussion mentions that there are various funds in Bangladesh but there is little knowledge about the difference between climate finance and development finance. In the preparation of a master plan, budget is one issue as well. “They” (referring to decision makers) need to know how to address the climate change issue in the preparation of the master plan. Municipalities and city corporations have their own master plan but there is no implementation of those. Monitoring of proper utilization of funds needs to be ensured. There is no integrated development approach. They urge for the need of developing national resources. When it comes to the implementation of rainwater harvesting, the mechanism of that is needed to be incorporated in the national level. The government needs to take the lead on promoting climate smart technology. Every city centre has the disaster level committee but there is no agenda. In the community level, the discussion is absent. Hence, proper documentation is needed to address the issue. One of the panelists mentioned that Bangladesh couldn't access the small grant program till now.

Dr. A Atiq Rahman, in his conclusion, emphasized on the use of urban resources in a sustainable manner.

### **Key recommendations:**

- The fundamental concept of the solution should be decentralization.
- Pushing the draft urban policy for finalization and implementation.
- There are master plans for municipalities and city corporations but no proper implementation of those plans. The climate change component is missing from those plans as well. The people who are associated with the preparation of the plan need capacity building training on various issues of climate change.
- There are 15 ministries working for the large scale project in the urban centres with also a large number of ministries working for the small scale project. Intermediary ministries are needed to bridge the scale of work.



### 6.3 Parallel Session P2: “Out of the Box Session”

#### Host/ Co-sponsor: ICCCAD

The “Out of the Box” session is a new idea that has been introduced in Bangladesh for the first time. The different Urban Resilience to Climate Change issues which has not been incorporated in the existing plenary and parallel sessions such as: climate change induced rural to urban migration, low carbon and sustainable urban transport for all, reducing public health hazards in urban areas, etc. were discussed in this session. Key learning of this session was to develop municipalities and towns in a planned bottom up approach so that the climate induced migrants in the coastal regions can live there with dignity, easing the pressure from major cities like Dhaka, Chittagong etc.



Session Moderator at the “Out of the Box session”

#### Session Chair: Mostofa Quaium Khan

#### Moderator: Sarder Shafiqul Alam

At the beginning of the session, the moderator talked about the reasons behind organizing the urban conference. ICCCAD connected with the ACCCRN global network because the urban resilience concept to climate change is a matter of concern for the coming years. This urban conference was first organized last year and it will be held annually. Dhaka city is very vulnerable to climate change and has been listed as one of the most vulnerable cities in the world for the last 3 to 4 years. But sadly it has not been included in the 100 resilient cities list of the Rockefeller foundation. Considering how vulnerable Bangladesh is to climate change leading experts, decision makers and scientists in this sector have to take this issue seriously for its long term effects in urban regions.

Several factors make a city more attractive to people. Sufficient job opportunities attract people more which creates a flow of people moving in the city. Thus the pressure falls on the infrastructure and on our living standard. Without controlling the heavy flow of migrants from the rural to urban areas, problems such as lack of proper water and sanitation facilities, insufficient schools, high cost of daily products, congested traffic, water logging due to improper waste disposal will arise. This will become more severe with the future climate change impacts.

One of the main reasons for urban vulnerabilities is unplanned urban growth. This has been a major problem in Bangladesh for a long time where public opinion is not taken into account. Urban planning has to be more practical than theoretical so we can see



Participants at the “Out of the Box session”

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the benefits rather the disadvantages. As a developing country Bangladesh is moving towards a prosperous future. Therefore, solutions to the urban problems has to be comprehensive where decision makers, urban planners and citizen opinions are included.

### Open Discussion:

One participant brought out the issue of rural to urban migration. It is neither possible to stop the migration trend nor can we change the urban infrastructure overnight. To do this we need to implement the laws for a planned urbanization. There is a need to develop other municipalities and make those attractive enough for people to move there. Example of Mongla and Noapara was discussed which has been slowly transformed into attractive urban areas for local people. Singapore was also indicated as a global example of climate resilient city.

Another participant discussed the capacity building programmes to make people more aware of the future scenarios. It was stated that the national education system should be reframed and more focus should be given on the vocational subjects. This will serve the larger benefit of turning people into a more employable population.

One discussant pointed out that natural environment such as rivers and vegetation in the urban areas should be conserved for a better climate resilient future. Another point came out stating that city populations should not exceed the capacity of the urban area.

The need to work together through a compact methodology has to be initiated where environmental specialists, engineers, policy makers and urban planners can help tackle climate change collectively.

### Key Recommendations:

- Small Upzillas need to be made more attractive with job opportunities and good infrastructures so people can easily move there instead of the capital city.
- Good infrastructure is key to a climate resilient city. Bottom up approach is needed for this.

## 6.4 Second Plenary Session: Transforming waste into resources: Bangladesh perspective and prospects

**Host:** Bangladesh FSM Network

The second plenary session of the three-day long conference focused on how a structured management could help transform wastes into usable assets. The objective of the session was to bring together relevant government institutions, members of the local government, urban sector specialist, civil society and development actors and academia to shed light on the different aspects of waste management in the context of sustainable urban development. From the session discussions, it became apparent that our existing waste management is neither safe nor sufficient. The 3R Strategy proposed by the Department of Environment



Key note speaker, moderator, session chair and panelists in the plenary session

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in 2010 needs to be reviewed and updated considering the changed waste management scenario and protection of the environment. Institutional and regulatory Framework for Faecal Sludge Management (FSM) has recently been approved by the Government. A national Action Plan is needed for dissemination and implementation.

**Moderator:** Ms Hasin Jahan

**Keynote presenter:** Dr Feroze Ahmed

**Panelists:** Dr Abdul Mueyed, Mr Mirza Shawkat Ali, Mr. Shafiqul Islam Akand

**Session Chair:** Dr Khairul Islam

The moderator welcomed the participants and shared a brief overview of the session. The keynote presenter gave a brief presentation on “Transforming waste into resources: Bangladesh perspective and prospects”. The presentation focused on four main issues: good practices of both solid and faecal sludge management (FSM); how much waste is produced and what can be done with the amount of waste produced; types of current practices in Bangladesh both in urban and municipality set-up and the economics of “how FSM is profitable in the Bangladesh context”.

### **Panel discussion:**

One of the concerns that came out from the panel discussion is to emphasize the capacity building of the local government stakeholders and authorities who work on waste management. It was discussed to have a FSM committee in the municipality level.

**Dr Abdul Mueyed** emphasized the importance of organic fertilizer from municipal solid waste and how the value chain can contribute in organic food production of the country. He addressed the issue of sensitization at mass level to create awareness among people, sensitization of development partners and other relevant government agencies and the waste workers, in particular. The issue of occupational safety and health should also be focused on while promoting waste management.

**Mr. Mirza Shawkat Ali** discussed the standardisation of the organic compost. He also mentioned the importance of operationalisation of relevant policies to achieve the SDG targets.

**Mr. Shafiqul Islam Akand** highlighted the importance of engaging local government institutions to implement medium to large scale waste treatment plant. He also emphasized the importance of city scale planning for proper management of waste such as solid waste, faecal waste and others. The scale up efforts by national development programmes/projects is also important to ensure the sustainable waste management system in the country, he added.

### **Open Discussion:**

In the open discussion session, several recommendations were proposed by the audience who actively participated in the session. Some of the key outcomes are:

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- As climate change is more visible, every development system has been considering the impact of climate change. But the water system emerging in the urban, peri-urban and municipalities are not considering the climate change impact.
- Political awareness and willingness is not enough as there is a gap or lack among the practitioners and policy makers.
- Separation of solid waste is necessary at household level, as it gets difficult to do afterwards.
- The attention on human rights and OSH of the workers are centred in Dhaka. These initiatives need to be taken into account for other smaller towns and urban growth centres.
- Need budget for operational and management for continuation after the project.
- Process of providing license of FSM services needs to be fast-tracked.
- Standardization of FSM needs to be achieved with the operationalization of the recently approved Institutional and Regulatory Framework on FSM. A national plan of action is the need of time.



Participant sharing his opinion in the plenary session

The chair of the session, **Dr Khairul Islam**, thanked the participants for their enthusiastic participation and concluded the session.

### Key Recommendations:

- Promote equitable distribution of liability for the central as well as local government through parallel institutional regulatory framework;
- Operationalize waste management policies through routine maintenance, monitoring and evaluation;
- Segregation is necessary for waste management. Political willingness is the key to achieve so.

### 6.5 Third Plenary Session: Building Resilience and inclusion in Bangladeshi Cities

Host: GIZ

GIZ Bangladesh is conducting a project titled “Urban Management of Internal Migration due to Climate Change (UMIMCC)” which is part of the priority area ‘Climate Change Adaptation in Urban Areas. The objective of the project is to improve the living conditions of climate migrants in selected settlements in Rajshahi and Khulna through demand-oriented measures. In order to make migration a successful adaptation strategy for both climate migrants and the host cities, this includes an improvement of the basic urban infrastructure in the settlements, the generation of short- and long-term income opportunities, as well as the identification of successful strategies to utilize the economic potential of climate migrants for the economic development of the host cities. The project achieved some learnings and experiences in the field of increasing resilience for urban poor and vulnerable communities, and set

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up some good practices in implementing the project interventions. Because such an approach requires strong coordination mechanisms and an institution that can coordinate amongst different government organizations on the national and local levels, GIZ hosted a plenary session titled "Building Resilience and inclusion in Bangladeshi Cities" at the Second Annual National Conference on Urban Resilience to Climate Change. Altogether, considering the general assessment, the session was successful as anticipated and it has rather inspired the organizer to conveniently organize at least another half-day session on the same topic for effective utilization of such appreciable interests found with the stakeholders.



Designated discussants along with keynote speakers and moderator

**Keynote presenters:** Mr. Ulf Neupert, Prof. Dr. Shakil Akhter, and Mr. Kazi Md. Ibrahim

**Designated Discussants:** Mr. Maniruzzamnan Moni, Mr. Mohammad Mossaddique Hossain, Ms. Rokeya Rahman, Ms. Hazera Khhatun

**Session Moderator:** Mostafa Quaium Khan

The session opened with a talk on GIZ's work in Bangladesh by **Mr. Ulf Neupert**. The presentation raised concern on climate change vulnerability and resilience to natural disasters. It is important to identify what vulnerabilities exist in the urban sector. Afterwards it has to be measured what type of resilience is needed and most significantly which are possible to achieve.

The second presentation by **Dr. 23Akhter** demonstrated the necessity to incorporate resiliency to the urban and regional planning. Urban areas are generally considered more resilient unless man-made hazards strike. The transportation system, energy efficiency, strong community network, sufficient education systems all comprises resiliency. But vulnerability is unpredictable if there is no resiliency plan/preparedness for sudden disasters. Examples of Haiti and Chile earthquakes came to light where Haiti suffered comparatively more than Chile. It was due to lack of pre-planning of what is coming ahead. Not only did Chile suffer less damage but it also recovered quicker than Haiti. The more a city is resilient the more socio-economic strength it demonstrates. Research showed that resiliency in Dhaka city has been reduced over the years due to unplanned urban development. Though there are lots of problems, there are also diverse opportunities for all stakeholders to work in a collaborate manner for climate resilience.

Apart from good infrastructure, a resilient city also needs good Social welfare and protection systems for the poor and vulnerable. This will help build a strong Disaster Risk Reduction scheme. People who are considered climate migrants should get priority. To make it a more inclusive scheme, it is necessary to include different vulnerable communities such as elderly people, women, children, disabled and they should be brought under allowance scheme to help with fighting poverty and help build a social safety net. At the same time, awareness building training and education programmes needs to get priority so the vulnerable community understand their situation better and know about supporting programmes.



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An important point that came under DRR scheme for urban areas was the need for earthquake risk planning as it has become a frequent phenomenon in Dhaka city. The plan to decentralize Dhaka should be a priority for the government. Economic solvency is very important as it ensures better understanding and skill development for all. Education should be prioritized to help foster a more informed community of citizens. Practical measures are needed instead of theoretical approaches. Our new concept of green city (Rajshahi) can be achieved if it is properly planned, designed and maintained and it has to be sustainable for the next 50 years at least.



Participants during the plenary session

### **Open Discussion:**

After the presentations and discussions by the designated discussants, it became a participatory session with time constraint to accommodate all the interested participants to contribute to the topic. Major points of the discussion session were:

- Identification of the climate vulnerable communities is crucial and effort should be there to enhance their adaptive capacity
- Decision makers must have better coordination among relevant ministries or divisions to achieve climate change resilience
- Local government need to be authorized as the main implementing agency of all climate change schemes

### **6.6 Parallel Session P3: City leadership and Multi-stakeholder Partnership for climate resilient Urban Development**

Co-sponsor/ Host- BRAC

The parallel session was hosted by BRAC to create the scope for climate experts, urban planners, DRR practitioners, engineers to discuss ways for multi-stakeholder partnership for climate resilient urban development and shed lights on various issues on government plans and policies; drainage congestions during rainy season, basic services, including health, sanitation, education for the migrated people living in urban poverty; heat island effect; increasing air-water-noise pollution; increasing demand of energy etc. The overarching goal of the session was to build the capacity of local government as well as bequeath more administrative power to them.

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**Keynote Speakers:** Professor Akter Mahmud, Dr. Saiful Momen, Md. Tazkin Ahmed

**Discussants:** Dr. Ainun Nishat, Hasina Mushrofa, Mosaddek Hossain Bulbul, Md. Moniruzzaman Moni, Zulfiqar Ali, Md. Motaher Hossain, A. Z. M. Menhanzul Haque

**Moderator:** Dr. Saleemul Huq

The session started with a presentation by **Professor Akter Mahmud** on **Climate Resilient Smart City**. In his presentation, he explained concepts and scope of smart city in sustainable development model. He also gave example of some smart city plans and gave a clear criterion between an unplanned city and a planned smart city. Climate Resilient Smart city incorporates climate resilient disaster management plan, climate smart land use, climate smart mobility, energy efficient built environment, water conservation and solid waste management into their master plan, which in return, provides a sustainable, low carbon climate resilient city.



Key note presentation by Prof. Akter during the session

The next presentation was given by **Dr. Saiful Momen** on **Urban Planning in Bangladesh and Climate Resilience**. He gave a quick overview of the overarching issues along with what does resilience mean. He explained that we have poverty, inequality, lack of livelihoods, lack of physical and environmental well-being. And we also have within our existing system: mal-governance, existing community and urban planning deficiency. Then, the economy and resources are limited which is affected by hydro-meteorological stresses. The pre-existing issues together with new stresses cause the compounding effect of human action and stress.

The third presentation was given by the mayor of Shatkhira municipality on **City Leadership in Climate Resilient Urban Development**. In the presentation, Mayor Tazkin Ahmed gave his perspective on Shatkhira municipality's risk and vulnerability according to the IPCC risk-vulnerability model.

He presented the current development plan going on in Shatkhira municipality including the master plan and drainage plan. The poor communities in the city are already identified by the UPPRP. But there is still a lack of initiative for city risk assessment. There exists a city level disaster management committee which is mandated by Standing order on Disaster (SOD). He indicated that there is a lot of enthusiasm from both government and donor side, but city leadership is a challenge for them, especially on fast-track administrative procedures, project formulation, preparation and approval.



Panelists during the session

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After the presentation session all the participants including mayors from different city corporations and municipalities participated in an open discussion.

### Open Discussion

The open discussion was arranged in two parts. The first part was the mayor's discussion session, the second part was the panelist's session. In the first part, the major discussion points by the city mayors were as follows:

- The concept of smart city shall be identified for each city. Planning will start from the centre. Rajshahi suffers from farakka in dry season, so they have planned to renovate canals and ponds which will be maintained by City Corporation and will be open throughout. They have made pledges to develop green city. Well- facilitated Public toilets and recycling of waste, along with rain water preservation
- Plan the cities according to the rate of population growth. What shall be the management system? Accountability, and also if the work is on ad-hoc basis or sustainable.
- Tourism planning for better investment and economic development
- Public awareness and education through leadership training; capacity-building activities for government officials and local leaders. Need government efforts to build political leadership.

Following the mayors' discussion points, the panelists of the session along with the participants gave their recommendations as follows:

- To build climate resilient city by enhancing knowledge on climate change for the vulnerable, via user-friendly toolkits
- To develop guideline on climate resilient city at policy level
- To foster inter-ministerial coordination
- To identify ways to disseminate knowledge on climate change through bottom-up approach
- New Urban Agenda under SDG 11 to be implemented through Plan of Action reflecting on the existing frameworks
- 7FYP has urban under chapter 9, in the 8th FYP urban could be included in budget
- Technical and practical knowledge enhancement of local leaders through mentorship on various aspects of climate resilience cities
- Annual review of the master plan by each City Corporation. Pourashava has Standing committee, have to identify ways to make them function could be through monthly meeting
- Urban Resilience Innovation hub at city level to think, plan and develop innovations in the context of each city
- Knowledge on CC shall be imparted through collaborative effort
- Resilience is old school now, we have to transform which includes resilience together with technology
- Even for slow onset events, resilience action shall be taken now



Participants giving their opinion during the session



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- In Shatkhira drainage system is necessary. The city is the recipient of the first GCF fund, which will be spent for improving drainage system and for research
- Raising Awareness shall be in correct dimension
- Enhance power of the local government

After the recommendations have been proposed, the moderator concluded the session with some key recommendations:

### **Key Recommendations:**

- Foster inter-ministerial coordination for improving city leadership and building climate resilience.
- Initiate a country wide Urban Resilience Innovation hub for promoting need specific plan of action for each city.
- Develop capacity of local government, as well as bequeath more administrative power to them.
- Design user friendly methods for disseminating knowledge on climate change to the local government and vulnerable communities

## **6.7 Parallel Session P4: Role of Women in Building Urban Resilience: CARE Bangladesh Experience**

**Host-** CARE Bangladesh

In current development discourse, women and girls are portrayed mainly as victims of disasters. A global study says, women and children are 14 times more likely than men to die during a disaster. The obvious question is why? The answer is not one but a combination of factors which affect women more in times of disaster. CARE Bangladesh co-hosted the conference and led a parallel session titled 'Role of Women in Building Urban Resilience'. Bringing over 100 DRR/resilience professionals from GoB, civil societies and academia, the parallel session opened up an opportunity to hear from the women leaders on how they unite the community, mobilize people and lead the Risk Reduction Action Planning.

**Panelists:** Mr. Palash Mondal, Mr. Ashekur Rahman, Nurun Nahar Chowdhury, Dr. Ahsan Uddin Ahmed

**Moderator:** Ms. Humaira Aziz

The moderator welcomed all participants and opened the session by giving a brief overview of women living in disaster prone urban settlements. She discussed the importance of the Urbanization and how women are playing a vital role in the development.

A documentary on women participations in different awareness building campaigning regarding disaster management was displayed. The documentary showcases the work of CARE Bangladesh with the marginal women in urban communities.

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The next interest of the session was sharing inspiring stories by the encouraging women who took leadership in many development initiatives. These leaders come out from the shadow of the traditional norms with the help of CARE's aspirations.

**Parvin Akhter**, EKATA member from Medical Slum explained how she, with other community members solved the severe water crisis of their community through Community-led water supply system, garbage problem through Community-led waste management system, and insecurity because of Gender Based Violence through installing street solar lights at critical points.



Panelists along with participants in the parallel session

*“They used to say, as a women we cannot lead, we are not good at resource management, and cannot take part in rescue operations during emergency, because these are not women-things! But we proved them wrong. From planning to implementation we lead, act and the evidences are now visible. We are in front of you!”*, said Sufia Begum, Chairperson of Community Development Committee, Uttar Tetultola.

**Fedousi**, a young female community volunteer shared their previous experience of being excluded from taking part in rescue operation during any fire breakout. *“Previously we females were not allowed to participate in rescue operations. But, after taking part in a number of community fire and demonstrate our capability to work with Fire Service and Civil Defense, now people can rely on us. The situation has changed now. We call FSCD if there is any hazard, on the other hand FSCD also asked us to join as well. Because, only we women can better help a woman in times of hazard.”*

The parallel session also provide a benefit of justifying the best practices and listen from Expert panelists including Development practitioner, Govt. representatives, elected body and Researchers.

**Mr. Ashekur Rahman**, Urban Programme Analyst, UNDP, mentioned that many challenges have been faced during the work. The prior problem was mind set about the women's participations in social work. After that he mentioned the weak bonding of the community, which needs to minimize. At the end of this comment he says problems in this field can be minimized in the long term. He stated, *“Lots of good works is carried on. Now these exemplary evidences need to carry forward up to the policy making stage, so that these best practices could be scaled up in a greater range.”*

**Ms. Nurun Nahar Chowdhury**, Deputy Secretary, Department of Disaster Management mentioned identifying the factors which are actually working for the resilience. According to her, *“It is the societal mindset and norms, which is the hardest challenge to overcome. First, we have to believe that women can lead and have to acknowledge their contribution. Only participation is not enough, women's voice need to be heard and enabling environment should create for their growth and active participation.”*

**Dr. Ahsan Uddin Ahmed**, Climate Change Expert talked about the traditional norm which ignores the women participation and accepting the women leadership in the development is a must. He said, *“Often through our approach we overburdened women by imposing too much responsibility on them. To flourish*

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*women's leadership skill and potentiality, male partners should help in domestic works and we, practitioners should help to create the environment of sensitization."*

**Mr. Palash Mondal**, Coordinator-Resilience and Climate Change brought out some ground level challenges and lessons learned during implementing the project 'Building resilience of the Urban Poor (BRUP)' under which these urban resilience activities are being carried out. He mentioned that challenges of women participation have to reduce and he also mentioned that women are not only supporting but also leading in the development. But the options need to be created.

The session ended up by a question-answer session from audiences and being wrapped by the Moderator, hoping that we will prepare ourselves to acknowledge women as a leader and society will create more space and enabling environment for women to build a resilient city.

### Key Recommendations

- To create job opportunities, and include best practices at the policy level for promoting women participation in leadership positions;
- To ensure proper acknowledgement of the roles of women;
- To recognize women leadership in the development process.

## 6.8 Fourth Plenary Session: Climate Resilient Cities: In Search of an Alternative

**Session Host:** ActionAid Bangladesh

The plenary session on Climate Resilient Cities: In Search of an Alternative gave emphasis on finding solutions to urban resilience rather than talking about the existing problems. The major outcome of the session was to focus on municipalities for good governance and inclusive development. The session called for different Urban Ministry along with the Urban Sectoral Policy for the increasing urban population in the future.

**Panelists:** Mr. Ahsan Habib Kamal, Dr. Nurun Nahar, Mr. Dr. AKM Abul Kalam, Mr. Khurshid Alam

**Chair and Moderator:** Farah Kabir



Story telling by a woman in the parallel session

The session was opened by the chair with a small presentation. The chair in her presentation, mentioned that present planning status of cities is not reliable. At present about 34% of total population of Bangladesh lives in cities. In Bangladesh, 8 major divisional towns are the most populated ones (Dhaka city itself has population estimated about 8.5 million). But the cities are not prepared to accommodate them with all service requirements. As a result, there is an absence of effective service mechanism in the cities that include inefficient and inadequate infrastructures i.e. roads, drainage system, etc.

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She also mentioned that Women and children are disproportionately vulnerable to urban hazards such as sexual harassment in urban spaces especially during disaster periods. Negative effect of climate change will further aggravate their vulnerability. She raised concern over city development processes that often only focus on financial profitability without considering social and environmental consequences.

She advocated for assurance of places for women and children in urban areas and recommended that investments should be environment and people friendly.



Session moderator and Panelists of the session

The chair then asked response from the panelists on:

- How the design and construction of infrastructure would look like in a 3°C scenario? Or even 2°C? The roads, buildings, drainage systems?
- Is urban public service system ready to provide for more than 80 million people?
- How cities can be made women and children friendly through policy enhancements?
- Is our consumption environment friendly?

**Mr. Ahsan Habib Kamal** mentioned that extreme rainfall is damaging roads and infrastructures in the southern region of the country. Surface water is severely depleted; existing tube-wells are not working in many places. The city corporation is facing challenges in providing safe drinking water for its citizens. Huge financial cost is required to build and operate treatment plants. He indicated that drainage system needs to be improved to a great extent to address the changes in the rainfall pattern.

He requested for contribution from each and every one from their own position as the government alone cannot tackle the situation. Development partners also need to step-up and join the forces.

Bangladesh will overcome this situation like many other occasions that the country has done in the past. The early stage of the process is already done as Bangladesh is well-aware of the problems, and has identified solutions to most of them. Bangladesh is now moving toward implementing solutions, collectively, said Dr. Saleemul Huq when asked by the chair about current status of the country's response to climate change. Bangladesh is one of the leading negotiators in the global forum in reducing GHG emission, he also added.



Dr. Saleemul Huq during his speech in the session

**Dr. Nurun Nahar** discussed the planning strategies of the government and acknowledged that the current poverty reduction planning in the government is mostly focused toward rural areas specially agriculture. She stated that the urban issues discussed in the session will be taken into consideration in preparing new perspective plan for 2041. She also mentioned

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that there is a lack of sectorial risk assessment that could come from disaster management actors, urban planners, education sector etc.

When asked about contribution from professionals, **Mr. Dr. AKM Abul Kalam** who is also the President of Bangladesh Institute of Planners (BIP), stated that planners are already engaged with different activities in this context. They assist the government in policy making; they took part in preparing Bangladesh Delta Plan. He noted that there is a need for capacity building of the local officials on planned urbanization. The new graduates should also be trained through skill development activities.

**Mr. Khurshid Alam**, the Assistant Country Director of the United Nations Development Programmes (UNDP) in Bangladesh briefly talked about different initiatives taken by his organization to assist Bangladesh in tackling climate change impacts. UNDP has five major projects in the pipeline at the moment that especially focuses on urban governance, poverty, resilience and low carbon development. He suggested that disaster management should not be just a chapter; rather an inherent part of all sectors in the Five Years Plans of Bangladesh government.

### **Open Discussion:**

The floor was opened by the chair for discussion. The chair asked for responses on what should be the responsibility of the citizen for making the cities climate resilient. The discussants responded that the urban citizens have a general expectation that the local government institutions are solely responsible for everything in the cities. This mindset needs to be changed and the civil society can take initiatives to make the change; for example, creating awareness among women and youth.

It was also discussed that different project or development initiatives are often framed as environment, women, and children friendly. It is important to evaluate to what extent they are in practical terms. In cities almost each household has a tube-well for water supply as opposed to 10-15 houses in rural area which is resulting in rapid ground water table depletion.

Suggestions that came out through the discussion during the session include but not limited to:

- Research should focus on urban problems and their solution e.g. health, power generation, etc.
- There should be a linkage between all actors in the urban sector
- Protection of natural resource should be ensured by the government as well as by ourselves
- An urban policy is required for planned urban development
- A focal ministry and a focal department is required for efficient and effective implementation of policies and plans
- If possible, a separate section on Climate Resilient Cities should be incorporated in the 8<sup>th</sup> Five Years Plan
- Capacity of City Leaders and officials should be developed through trainings, conferences, seminars

### **Key Recommendations:**

The chair then concluded the Plenary Session with following key recommendations

- The mayors wish to develop their respective urban plan and implement it with government and donors alike.



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- They call for investment in their Master Plan
- A separate Urban Ministry Should be established to ensure planned urban development along the Urban Policy

### 6.9 Fifth Plenary Session: Lessons Learnt on Urban Climate Change Adaptation and Resilience from ACCCRN partners in Bangladesh

Host: ACCCRN Bangladesh

ACCCRN partners are working in different cities and municipalities in Bangladesh on the issues of climate change related risks and vulnerabilities. They are developing and implementing action plans to reduce those risks and vulnerabilities and making cities resilient. Lessons learnt from those activities, including challenges and opportunities they face while working and how their work are contributing towards building urban resilience need to be shared among various stakeholders' groups in a national conference. The main attraction of the session was the speech by Mr Zulfikar Ali, Mayor of Mongla Municipality, who shared the key lessons learnt to build Mongla as a climate resilient town. This is proof that sharing of knowledge among different stakeholders is imperative to enhance the knowledge domain and to build climate resilient city.



Mayor of Mongla sharing his experience in the session

**Keynote Presenters:** Mr. Sarder Shafiqul Alam, Mr. Jubair Rashid

**Panelists:** Mr. Zulfikar Ali, Ms Hasina Moshrufa

**Session Chair:** Dr. Saleemul Huq

This session was chaired by **Dr. Saleemul Huq from ICCCAD**. He welcomed all the guests and sets the outline for the session. He started with the brief overview on ACCCRN; which used to be a part of the investment programme of Rockefeller Foundation. He emphasized the effective role of the networking which will proceed further as the earlier format which is web based/virtual. He also mentioned that there is no need to develop a separate web platform rather continue collaboration within the existing system.

Following through, **Mr. Sarder Shafiqul Alam from ICCCAD** gave a presentation on ICCCAD's experience with ACCCRN. He provided a brief overview of the outcomes, system approach and action areas of the network. He also illustrated the context of Bangladesh and how ICCCAD got involved in 2015 with this web platform. He shared briefly the research work that has been conducted by ICCCAD under the umbrella of ACCCRN. He stressed the need for the further continuation of the web-based networking platform. He finished by welcoming everyone and their associated partners to become a member of ACCCRN and to share their experience and learning within the network.

The second presentation was made by **Mr. Jubair Rashid from ICLEI** on 'Road to Resilience: Implementing ICLEI ACCCRN process in Bangladesh.' He introduced a toolkit, ICLEI ACCCRN Process (IAP), led by his own institution, to serve the purpose of assessing the climate risk and act accordingly. He explained the development of the toolkit and how it can be functioned to generate the knowledge domain in regards to

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climate risk assessment, fragile urban system and identifying vulnerable places. Moreover, he shared ICLEI's experience in implementing IAP and in developing resilience strategies in 7 cities of Bangladesh. Throughout the whole presentation, more emphasis has been given to further research and collaboration with the local level stakeholders to ensure climate resilient cities.

The next presentation was given by the **mayor of Mongla Municipality, Mr. Zulfikar Ali**. He provided a brief overview on the development context of Mongla municipality. He portrayed the municipality as a land of opportunity which eventually led the city to accommodate people coming from different parts of the country. Primarily Mongla suffered from the water congestion but now they have managed innovatively to secure the city from water logging and the impacts of Climate Change. Mongla Mayor has provided with income opportunity and has introduced innovative solution for the development and to raise the value of land. He gave more emphasize on innovative ideas that have the potential to resolve climate change impacts and develop resilient strategies. He thanked ICLEI to provide support and encouragement in engaging people with the development process. In addition to this he also engaged different cooperatives within the system which, according to him, will eventually ensure the resilience.



Participants during the plenary session

As a last presenter, **Ms Hasina Moshrufa from BRAC** briefly illustrated the role of BRAC in terms of urban resilience and highlighted a few potential opportunities in collaboration with the partners; particularly with the Mongla city mayor and ICLEI. She also emphasized the work that ICLEI is conducting and promised for a joint implementation in more than 7 cities. She agreed that there is a need to conduct risk assessment in order to develop resilience strategy. She considered Satkhira as the most vulnerable and as an immediate step, the risk assessment should be conducted there. She ended with saying that regardless of the implementation promises made during the event, it would be worthwhile to have an implementation strategy after the conference to keep up the momentum.

### Open Discussion

Following the presentation, Dr. Saleemul Huq opened the floor for all the participants and welcomed everyone to come up with a question or any suggestions regarding solutions to the problems. One of the participants from BRAC, proposed to solve one problem at a time. He also suggested for a study compiling of successful intervention made to ensure resilience in urban areas. It will facilitate and enhance the learning among the different level of stakeholders. Another participant from Nari Maitree mentioned the importance of the engagement of mayors in the development process. It would be much effective if further encouragement could be made among other mayors. He wanted to know the difficulties that the mayor from Mongla municipality faced in order to intervene successfully. The mayor replied back by mentioning that he faced a lot problems from the general people along with the different government officials but eventually he succeeded. He shared two examples regarding this; one is about the development of sludge-gate and about the surface water collection from the rain water to serve the drinking purpose in the municipality.

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Dr. Huq concluded the session encouraging everyone to learn from Mongla as a successful case in developing a resilient city. Further, two points of recommendations have been acknowledged from the session:

- Participatory approach should be maintained to ensure better implementation of plans and to make cities resilient; an example can be drawn from the Mongla.
- Sharing of knowledge among different stakeholders is imperative to enhance the knowledge domain and to build climate resilient cities.

### 6.10 Parallel Session P5: Climate Change and Urban Women and Children: Impacts and Implications for Adaptation in Low and Middle Income Communities

**Host:** Awaas Sewa, India

Urban women resilience in climate change impacts and adaptation strategies in South East Asia was the main topic of this session. The women and children of slum settlements particularly face intensified vulnerability owing to existing gender gaps, inadequate services, informal employment and least access to information as well as assets. In order to shed some light on the existing program and similar models, the session brought together implementers of community-led urban resilience from across South Asia to deliberate on building the capacities of urban poor (women and children in particular) on climate-specific adaptations and approaches to strengthen resilience in low and middle income communities. The host of the session Awaas Sewa Pvt Ltd and Mahila Housing Trust (MHT) shared their experience working with women and children in slums and different participatory approaches and toolkits to build their capacity for climate change resilience. The Bangladesh partner of the program Nari Maitree also shared their experience on how they replicated the idea and built capacity of women in two slums of Dhaka city. ADAMS, a local NGO, also shared their experience on capacity building of women in slums. Women in slums should be made aware of their situation and have a proper consensus to voice their opinion to the local government. Multi-stakeholder collaboration is needed to develop urban resilience as a whole

**Keynote Presenters:** Ms. Bijal Brahmbhatt, Ms. Bharati Bhonsale, Ms. Tasfia Tasnim, Mr. Quamrul Islam, ADAMS (Local NGO)

**Session Chair:** Sarder Shafiqul Alam

**Mr. Sarder Shafiqul Alam** as the session chair started the session by welcoming all participants to the final day of the urban conference.

The first presentation was made by **Ms. Bijal Brahmbhatt, Awaas Sewa Private Limited**, who shared that to the women she works with climate change is still an unfamiliar topic. “These women are mainly concerned about fulfilling their basic needs, they are too vulnerable to think beyond their daily worries” she says. It is only when they were told about climate change affecting the lives of their children did they



Panelists in the parallel session



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get worried, she shares. We need to research on/develop technologies that can be used for the poor and it has to be validated by the poor. When introducing new technologies in the slum areas, the government's help is crucial. Products often have to be subsidized before its advantages can be well known.

Following this presentation, **Ms. Bharati Bhonsale, Mahila Housing Sewa Trust**, presented the findings of a project she is involved in. So far the project has reached three countries, seven growing cities, 100 slum settlements, 1200 women/youth and 25000 families. The program was designed across cities in India, Bangladesh and Nepal. She explained the training methodology applied, which included innovative and creative games and exercises. She also mentions new innovative technology that are being piloted in some of the slums she is working in. She said that once women are aware of these issues they can take more charge in the community.



Ms Bharati Bhonsale giving her speech during the session

The third presentation was made by **Ms. Tasfia Tasnim, ICCAD**. She starts her presentation by sharing the current urban status of Bangladesh. She stresses that the impacts of climate change and population density will create vulnerability amongst the urban population and the impacts will be spread disproportionately. Those living in urban slums and informal settlements will be hit hardest, especially women, who will have difficulty accessing information and resources. She mentions that there is a significant gap in community led initiatives and the work done by women in these communities is often not recognised. The last presentation from the session was by Mr. **Quamrul Islam, Nari Maitree**. He starts off by saying that it is often ignored that urban slum dwellers may live in far worse conditions than those residing in rural villages. He talks about the findings of his work with urban slums in Dhaka and shares that slum women have now formed community based organizations and women are now more involved in decision making processes.

The final talk was by ADAMs, a local NGO, which shared their many initiatives for enhancing women empowerment through assisting in establishing small income generating businesses in the urban slums of Bangladesh.

### Open Discussion Points:

- In order to assist Bangladesh to develop their urban movements, India will transfer knowledge and good practices that can be implemented in Bangladesh. India's most successful practices can be brought to Bangladesh, especially the community based initiatives.
- When it comes to prevention from slum evacuation, a mass movement needs to be started, this movement needs to come from the ground level. This movement is not to oppose the government but to create more demand.
- There are no social safety net programs for the displaced population in urban cities, when they resettle in cities their lives are still unstable and they live in poor conditions. The government needs to have plans for these people.

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- In order to make initiatives more sustainable it is important to have government support. Trust needs to be built with government entities to make collaborations possible
- NGOs may not be sustainable but creating local community leaders will be more sustainable since they will be based on the local area and they will know the context better.

### Key Recommendations:

- Women in urban slums need to be communicated with in ways that appeal to them.
- Change needs to be intergenerational. The community youth need to be trained to participate more actively.
- Need to research on/develop technologies that can be used for the slum communities and it has to be validated by them.
- A better link is needed between slum dwellers and government level organizations working on similar issues.
- Another forward includes CAG to negotiate with municipality to clear up drains. Essential to make the voices of the slum dwellers heard as well as alliance building and engagement with appropriate organizations.
- Instead of forming multiple groups working on the same issues in local communities, a better social mapping exercise could be performed. This will help direct investment better and strengthen existing groups.

### 6.11 Parallel Session 6: Prioritizing climate change adaptation and local level resilience in cities in Bangladesh

**Host:** Christian Aid and German Red Cross

Christian aid Bangladesh have successfully implemented sustainable resilient livelihoods projects and scaled up existing good practices of climate change adaptive practices in various agro-ecological zones of Bangladesh. Diversified income generation options and climate adaptive livelihood measures in 'haor' areas have increased communities' adaptability and resilience. Community-led participatory vulnerability and capacity analysis (PVCAs) provide specific direction in risk reduction and resilience building. Their climate resilience work has so far reached more than 25,000 beneficiaries (80% of



Session moderator in the parallel session

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them women) in vulnerable geographical areas. Christian Aid Bangladesh has a track record and proven ability of 35 years in developing technical skills, knowledge and capacity around climate change adaptation. The German Foreign Ministry is currently funding the 'Forecast based Financing' (FbF) pilot project which aims at strengthening early warnings for natural hazards and linking it closely with financing pre-identified early actions to increase local level resilience and mitigate the negative disaster impact. The FbF project is being implemented by the Bangladesh Red Crescent Society with support from the German Red Cross in Bangladesh, strengthening climate change adaptation and institutionalizing the FbF approach in early response processes. Considering this issue, a parallel session is arranged with the aim of identifying the current scope and strategies for promoting climate change adaptation and local level resilience in Bangladesh's humanitarian context, and looking more closely at practices that reduce loss and damages, mitigate climate hazard, and reduce vulnerabilities.

**Keynote Presenter:** Raymond Zingg

**Panelists:** Mirza Shawkat Ali, Professor Afsana Haque, Ahmadul Hassan, Sanjib Biswas

**Moderator:** Shakeb Nabi

At the beginning of the session, the moderator discussed the current climate change scenario in Bangladesh. Not only flood and cyclone are common incidences but landslide, river erosion is also found here. Population are moving to Dhaka. Most of the migrants who come to Dhaka end up in the slums, summing up to 40 percent of the city's population. Some 70 percent of slum dwellers in Dhaka experienced some kind of environmental hardship.

The first presentation of the session was on the Forecasting Based Financial approach (FBF) by **Raymond Zingg**. Natural disaster is increasing and climate change will influence the consequence. The whole idea of FBF is to identify the specific disaster and take action to reduce the impact. The forecasting will be based on the impact type, the cash will be given on the negative consequences & priority EA through FGD with the communities. Some of the main challenges for FBF are increased intensity of natural disasters and tracking down the sustainable requirements.



Keynote presentation in the session

The second presentation was of **Dr. Afsana Haque** on “**Natural Disasters and Regional Economic Systems of Bangladesh**”. She presented that natural disasters often have wider impacts that spread not only beyond geographical boundary but also across sectors. In her conclusion she stated that Investment decisions in terms of different structural and non-structural measures must consider distinct characteristics of different hazards in conjunction with regional economic structure.

### **Open Discussion:**

In the open discussion session, participants actively involved in the question answer segment and shared their views and opinions regarding local level resilience. In their views, decentralization is not feasible if the rural parts do not have basic services. Funding decisions for local level resilience should come from a

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central body. Main infrastructures like roads, highways should be built climate resilient to ensure mobility at the time of disaster. Improved weather forecasting system should be utilized for early warning system during disaster. Commitment to global funding also needed to come to action. Urban Sector Policy is mandatory to make sure urban resilience and local level development programmes are continued.

The moderator of the session concluded marking some key points:

- Commitment for global funding has to come in action;
- Need to include climate resilient urban sectoral policy;
- Ecosystem needs to be considered in urban planning.

### 6.12 Plenary Session 6: Resilience to Climate Change and Problems to Solution

**Host:** ICCCAD

The last plenary session of the conference outlined the overall theme of the conference bringing together all the co-hosts, urban practitioners, social thinkers, academics and public alike to come to solutions for urban resilience to climate change. The participants in the session urged to identify gaps within existing urban resilience framework which need to be addressed in the short term and long term. Recognizing necessary policy issues and national and local action plans is essential to making cities more resilient to climate change.

**Keynote Speaker:** Dr. Ishrat Islam

**Panelists:** Mr. Mostafa Quaium Khan, Ms. Hasina Moshrofa

**Session Chair:** Dr. Saleemul Huq

**Dr. Saleemul Huq** welcomed all the guests and set the outline for the next hour. He started off by saying that while everyone is aware of the many existing problems it is now time to think of and discuss the solutions of these problems.

Following the introduction, a keynote presentation was given by **Dr. Ishrat Islam** on “Mainstreaming Climate Change into Urban Development: A Review of Policies, plans and Acts”. She gave a thorough presentation on the present trend of urbanization in Bangladesh and how it conforms to the SDG goal 11 and 13. She stated that the impact of climate change is felt across social, economic and environmental state and impose pressure on land use, urban services, demography and social equity. Department of Urban and Regional planning of BUET is conducting a research project which aims at In-depth assessment of national urban related policies to identify gaps, where climate change can be incorporated into urban legislation, and the ways to address these issues.



Keynote speech on Climate Change and Urban Policies



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The key findings of the research shows DRR and CCA are often separately addressed both from policy and institutional perspectives. Local Government Acts empowered City Corporation and Pourashava to prepare its own master plan. These institutes are also responsible for regulating building construction and land development. It needs to be noted that a significant number of Pourashavas and City Corporations do not have any master plan yet. As the local government is entrusted for approval and monitoring of building construction and land use development, they can thus play a significant role to ensure mainstreaming of climate change strategies at local and plot level such as in site planning, conservation of waterbody, reduction of non-permeable surface, greening of sites, etc. The strategies mentioned in BCCSAP 2009 and NAPA 2009 needed to be incorporated in master plan documents and rules at local level. City Corporation Disaster Management Committee (DMC) can undertake climate change adaptation and mitigation strategies at local level planning and building construction. It needs to work in close association with the committee on Urban Planning and Development as mentioned in Local Government Acts. At present, climate change adaptation strategies are not included in the purview DMC. The responsibility and activities of this committee require to be revised. Overall, revision, modification and adoption of plans, acts and rules to incorporate strategies mentioned in BCCSAP 2009 and NAPA 2009 is of utmost importance in mainstreaming climate change into urban planning process.

The presentation was followed by a panel discussion. **Mr. Mostafa Quaium Khan** discusses Ms. Ishrat's presentation. He mentioned issues such as health and transportation, which need to be incorporated in urban conferences. Considering that urban population are under threat, there is a need to address the current urban issues. He ends by saying that the government needs to encourage collective action and the approach needs to be more action focused.

Following this, **Ms. Hasina Mushrofa** addresses the panel and shares some actions that could help take the issues discussed in the 3 day conference forward. She suggests that the report from this conference to be submitted to the government and small roundtable to be held with government representatives to discuss the issues and solutions and reach consensus. There are many policy gaps in case of urban issues. Therefore, a common resilience strategy from the government is needed to meet these gaps. She stresses the need for successful examples to showcase in order to promote future actions. She ends by suggesting national workshops and city level meetings to feed into the 8th 5 year plan and developing an innovative hub to establish momentum.

### Open Discussion:

The open discussion session following the panel discussion mentions the need for a city ward level committee. Suggestions include focusing on long term solutions rather than short term. Some other points discussed mention health to be one of the main problems in the context of urban issues and so examples of other countries need to be explored. Recommendations to improve transportation between Dhaka and neighboring cities to enable displaced population to settle in other areas is also mentioned by one of the participants.



Panelists and participants in the last plenary session

Dr. Saleemul Huq wrapped the session and invited all the participants to join the concluding session.



### 6.13 Concluding Session

**Session Chair:** Dr. Saleemul Huq

**Closing Speech:** Sarder Shafiqul Alam

**Panelist:** Hasina Mushrofa

**Chief Guest:** Abdul Malek

**Dr. Saleemul Huq** opened the session by thanking everyone for their active participation over the last three days of the conference. A wide array of actors including government officials, academics, NGOs, CSOs and media were represented at the conference and the chair was particularly pleased to see participation from mayors of different cities and municipalities. He hopes to forward recommendations coming out of the conference to respective government agencies and that they will be incorporated into the country's upcoming 8th Five Year Plan (8FYP).



Concluding Session participants and panelists

**Sarder Shafiqul Alam** then proceeded to share some of the key discussion points and findings from the different plenary and parallel sessions held during the conference. Important recommendations include:

- The need to integrate climate change into existing city and municipality master plans and find pathways to implement them. This means there needs to be increased investments in these plans.
- Local governments will also need to have greater administrative powers and their capacity needs to be developed. Overall political commitment towards the issue also needs to be improved to facilitate the mobilization of funds and implementation of plans.
- The sessions acknowledged that decentralization is crucial to easing the pressure of major cities and to do so, infrastructure and public facilities need to be developed in smaller cities.
- Industries need to be shifted based on suitability of a region and livelihood opportunities should be created to attract people to emerging cities.
- Lastly, a joint urban networking platform such as this one needs to be sustained to help promote knowledge exchange among relevant stakeholders and thereby facilitate enhanced understanding of the issue and in turn generate collaborative solutions.

**Hasina Mushrofa** began by sharing some of the work that BRAC's Urban Development is undertaking. Based on her experience thus far and discussions held during the conference, she reiterated the pressing need to set up policies and committees for enhanced inter-ministerial coordination on the issue of urbanization and climate change in the country. She mentioned that many south Asian countries have already established dedicated ministries on urban affairs. As urban areas become inhabited by the majority of the country's population in the coming decades, she feels that Bangladesh should strive to do the same. She then went on to praise the individual efforts taken by different mayors of the country of their own accord to combat the issue. She pointed out that many cities and municipalities have developed

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city master plans. However, these plans have not adequately accounted for climate change. Furthermore, to ensure effective implementation, these plans need to be routinely reviewed so that emerging gaps are addressed regularly. City resilience plans could also be developed. Another suggestion she put forward was to conduct a multi-stakeholder led vulnerability assessment of all major cities in Bangladesh. She concluded by commending the initiative taken by ICCAD to develop a platform like this and promised BRAC's support as required. She intends to share the findings and declarations from the conference at government platforms.

**The honourable chief guest Abdul Malek** began by expressing his pleasure with the set of recommendations that have come out of the conference. He wished there was greater participation from the government. He then briefly spoke about Bangladesh's vulnerability to climate change and the different initiatives the present government has taken over the years to combat the manifold problems associated with the phenomenon. He then spoke about the gradual evolution of local government structure in the country since its independence. He highlighted that the biggest barrier to the development of urban centers and resettlement of populations has been the lack of services and facilities provided by local governments. The current administration has taken a number of steps to address this including the development of the Local Government Act of 2009 which has bestowed greater administrative powers to mayors and local government bodies. Consequently, the structure and performance of local governments have improved markedly in recent years. A lot of development has since taken place in smaller cities and municipalities in terms on industry, infrastructure as well as social services.

He concluded his speech by praising all the actors who have and continue to contribute and engage in tackling the problem of unplanned urbanization in the face of climate change.



The honourable Secretary, Ministry of LGRD giving speech in the concluding session

## 7. Summary Findings, Recommendation and Actions

### 7.1 Summary Findings

Cities are the driving force of a country's economy and prosperity. It is predicted that by 2050, more than 50% of the population of Bangladesh will live in urban areas, creating pressure on existing urban infrastructures and services like housing, roads, safe water supply, sanitation, electricity and waste management etc. Due to climate change induced global warming, temperatures are rising, rainfall patterns are changing and vector borne diseases are increasing, causing serious health problems and increasing vulnerability of the urban community, particularly the urban poor residing in slums. This situation will be aggravated due to increase in climatic hazards and impacts in the future across sectors. Our unplanned cities are growing rapidly with increase in urban poverty, inequality, inadequate affordable livelihoods, lack of physical and environmental well-being, lack of social safety net programmes, poor governance, insufficient political commitment, and urban planning deficiency. People are mainly migrating to the few major cities in the country for their survival and maintaining livelihoods. Recently, the existing infrastructure and services of those major cities have been facing multiple challenges in regards to resilience. There is a need to follow a framework which will make urban centres resilient to climate change.

Planning and development of a resilient city should follow a climate resilient framework considering different dimensions like infrastructure and environment, health and well-being, economy and society, and leadership and strategy. It should also incorporate climate resilient disaster management plans, climate smart land use, climate smart mobility, affordable housing for all, energy efficient built environment, water conservation and solid waste management into the master plan, which in return provides a sustainable, low carbon climate resilient city.

It is important to promote infrastructural linkages among urban centres to help facilitate the movement of people and commerce. A resilient city needs a good social welfare and protection system for the poor and vulnerable in the face of climate change impacts. It is also necessary to regularly update and implement climate resilient action plans to help address climate change impacts. Public, private and community involvement is essential to build resilient cities. In order to develop leadership, and strategize urban resilience to climate change, frequent communication and regular dialogue among stakeholders such as different ministries of the government, private sector, general public, researchers, NGOs, government officials, media etc. need to be ensured. The immense potential of human capital of Bangladesh can play a crucial role in building smart cities that are resilient to climate change.

### 7.2 Key Recommendations

#### 1. Participatory Approaches

- Participatory approach is needed for integrated stakeholder driven planning to ensure better implementation of the plans and to make cities resilient.

#### 2. Affordable Technology for All

- Technology for mitigation and adaptation to climate change has to be accessible and affordable for all community in urban area to help combat the impacts of climate change.

### **3. Waste Management Mechanism**

- Segregate wastes from household level for composting to fertilizers, recycling and reusing purpose.
- Operationalize waste management policies to achieve the SDG target.

### **4. Women Empowerment in Urban Resilience to Climate Change**

- Create job opportunities for women, and include best practices at the policy level for promoting women participation in leadership positions. The role of women should also be recognized in development planning processes.

### **5. Decentralization of Urbanization**

- The fundamental concept of development should focus on decentralization to address population pressure in major cities. Secondary cities and municipalities need to be made more attractive with job opportunities, education and health facilities, basic services and good infrastructure so people are incentivized to stay there more instead of moving to large cities.
- This can be done by developing new economic hubs with industries and other facilities.

### **6. Local Government Involvement in Urban Resilience to Climate Change**

- Climate change hazards, impacts and adaptation strategies should be considered in local government planning and implementation.
- Local governments need to be authorized as the main implementing agency of all climate change schemes as well as local level planning.

### **7. Ecosystem Needs for Urban Resilience**

- Ecosystem and natural resources should be incorporated into actions plans and protection of natural resources should be ensured by the government as well as ourselves.

### **8. Financing for Urban Resilience**

- Greater investments are mandatory to facilitate the implementation of master plan of municipalities. Commitment for global funding has to come in action.

### **9. Capacity Building on Urban Resilience**

- Provide capacity building training to local government representatives, government officials and other stakeholders to develop necessary skillsets to incorporate climate resilient planning into existing city master plans.

### **10. Establish Urban Resilience Network**

- Initiate a country wide Urban Resilience Innovation Hub for promoting need specific plan of action for each city.
- Build an urban networking platform with strong research base for promoting collaborative advocacy and evidence based study.

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- Design user friendly methods for disseminating knowledge on climate change to the local government and vulnerable communities.
- Urban networking platforms like ACCCRN, BUF, MAB etc. need to be strengthened and made more functional for long time to generate research based knowledge and promote knowledge exchange and enhance collaborative solutions.

### **11. Ensure Political Commitment**

- Sufficient political commitment needs to be ensured to build urban resilience
- Political commitment of leaders and vision of policy makers and mayors are central to lead the transition to resilient cities which will be equitable, safe, affordable and healthy for all.

### **12. Good Governance**

- Ensure transparency and accountability of fund's use to implement plans and projects.
- Promote equitable distribution of liability for the central as well as local government authorities through developing robust institutional regulatory framework.

### **13. Urban Sector Policy**

- Formulating the National Urban Sector Policy as a long term guideline document for climate resilience, achieving SDGs and fulfilling The New Urban Agenda.

### **14. Multi-stakeholder Collaboration**

- Government ministries, departments, agencies, NGOs, other service providers must have adequate cooperation and collaboration to provide services for the urban community, by implementing necessary policies and plans.

### **15. Establishing a Ministry of Urban Affairs**

- Establish a Ministry of Urban Affairs to formulate new policies and guidelines for ensuring sustainable and resilient urban development for the country.



**7.3 Suggested Urban Resilience Actions**

Action	Implementing Agency(s)	Indicator(s)	Expected Outcome
Participatory Approaches in planning and implementation	CBOs and Local community; Local Government; Media; Private Sector; NGOs; Central Government	1. Information Dissemination 2. Reflection of public decision 3. Monitoring and evaluation of plans and projects	People oriented climate resilient cities are ensured enabling social inclusion with positive outcomes of urbanization i.e. better living conditions, economic opportunity, improved health, improved urban mobility; improved disaster resilience etc.
Affordable Housing and Technology for All	Private Sector; Researchers; Central Government	1. Knowledge of appropriate technology 2. Accessibility to urban poor 3. Affordability to urban poor	Urban poor people are more equipped with affordable housing, technology on climate mitigation and adaptation
Waste Management Mechanism	Government Service Providers; Local Community; Central Government	1. Reduced disease rate 2. Quantity of Waste recycled 3. Quantity of waste converted into fertilizer 4. Reduced drainage congestion	People enjoy clean and healthy urban environment.
Women Empowerment in Urban Resilience to Climate Change	CBOs and Local community; Local Government; Media; Private Sector; NGOs; Central Government	1. Women leadership capacity 2. Raised Awareness of women 3. Economic opportunities for women	Women participation is ensured across all sectors and at all levels of development process, their voices recognized and their decisions are taken into action and enhanced adaptive capacity
Urban Decentralization	Central Government; Local Government; Private Sector	1. Employment Opportunities 2. Market development for local products 3. Urban to urban linkage 4. Access to different services	Secondary cities and municipalities are equipped with job opportunities and robust infrastructures, easing pressure from major cities and fulfilling local needs.
Local Government Involvement in Urban Resilience to Climate Change	City Corporations; Local Government; Central Government	1. Ability to prepare master plan 2. Resources for implementing plan	Cities and towns become more resilient to climate change ensuring local opportunities and needs into action plan
Ecosystem needs for urban resilience	Central Government; Local Government; Private Sector NGOs Community	1. Quality and quantity of wildlife 2. Change in the area of green space overtime 3. Change in existing waterbodies overtime 4. Improved health 5. Reduced disease rate	Natural habitats and biodiversity protected, conserved or restored, minimizing the environmental impact and change to sustainable consumption and production.
Financing for Urban Resilience	Relevant Ministries	1. Access to fund to cities and municipalities 2. Allocation of budget according to need and resources	Climate resilient infrastructures (e.g., cyclone shelters, coastal and river embankments and water management systems; urban drainage systems; river erosion control works; flood shelters; solid waste developed
Capacity Building on Urban Resilience	Central Government; City Corporations; Local Governments; Private Sector; Research and academic institutions;	1. Enhanced capacity 2. Developed Skills 3. Resourcefulness	Government officials as well as local NGOs, journalists, community people, academicians and local elites are aware of climate change vulnerabilities and adaptation options to improve their community resilience.
Establish Urban Resilience Network	Central Government; Local Government;	1. Scientific Papers published	New knowledge generated for urban resilience to climate change

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Action	Implementing Agency(s)	Indicator(s)	Expected Outcome
	Media; Researchers; Urban Practitioners	2. Knowledge platform created and functional for disseminating knowledge regarding urban resilience to climate change 3. Capacity building of all stakeholders 4. Assurance of Funding	
Good Governance	Relevant Ministries, departments, agencies; Private Sector; Local Government; NGOs; CBOs;	1. Accountability 2. Transparency	Improved political commitment ensuring proper allocation of resources and funds for sustainable urbanization
Urban Sector Policy	Central Government	1. Urban Sector Policy finalized 2. Climate Resilient guidelines are incorporated into Urban Sector Policy	A National Urban Sector Policy created as a guideline document sustainable urban transformation
Multi-Stakeholder Collaboration	CBOs and Local community; Local Government; Media; Private Sector; NGOs; Relevant Ministries	1. Established collaboration and coordination for implementing projects and providing services 2. Community people receiving appropriate services in time	Urban climate resilience activities are accelerated with better coordination among multiple stakeholders with appropriate roles and responsibilities assigned, reducing the chance of overlapping and improved services
Establishing a separate urban ministry	Central Government	1. A Separate Urban Ministry established	Urban ministry established and formulated new policies and guidelines for ensuring sustainable and resilient urban development for the country.

## ANNEX-I: Agenda (Detail Schedule of the Conference)

### DAY ONE

SATURDAY, 25 NOVEMBER 2017

08:30 – 09:30

#### Registration

09:30 – 11:00

#### Inaugural Session

##### Auditorium

Welcome address: **Sarder Shafiqul Alam**, Coordinator, International Centre for Climate Change and Development (ICCCAD) at Independent University, Bangladesh (IUB)

Keynote Presenter: **Dr. John I. Carruthers**, Director, Sustainable Urban Planning Program, College of Professional Studies, The George Washington University

Special Guest: **H.E. Sidsel Bleken**, Ambassador, Norway

Chief Guest: **Dr. Kamal Uddin Ahmed**, Member, Physical Infrastructure Division, Planning Commission, Ministry of Planning

Session Chair: **Dr. Salemul Huq**, Director, International Centre for Climate Change and Development (ICCCAD) at Independent University, Bangladesh (IUB)

11:00 – 11:30

#### Tea Break

11:30 – 13:00

#### First Plenary Session

##### Auditorium

**Mayors Round Table on “The Implications of Population Growth and Urbanization for Climate Change”**

##### Concern Worldwide

Keynote presenter: **Dr. Ahsan Uddin Ahmed**, Director, Center for Global Change

Panelists: **Mr. Syed Jahangir Alam**, Mayor, Dinajpur Municipality  
**Mr. Md. Motahar Hossain**, Mayor, Sonaimuri Municipality  
**Mr. Nur Uddin Al Mamun**, Mayor, Savar Municipality, Dhaka  
**Advt. A K M Mahbubur Rahman**, Mayor, Chougacha Municipality  
**Mr. khondokar Murshed Rahman**, Mayor, Modhukhali Municipality  
**Mr. A. Z. M. Menhazul Haque**, Mayor, Parbatipur Municipality  
**Md. Mizanur Rahman**, Mayor, Tanore Municipality, Rajshahi

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**Md. Saifur Rahman Razzak**, Panel Mayor, Shariyatpur Municipality

*Open Discussion*

Session Chair: **Dr. Saleemul Huq**, Director, ICCCAD

**13:00 – 14:00 Lunch Break**

**14:00 – 15:30 Parallel Session 1**

*Auditorium*

**Climate Change and major cities in Bangladesh: Urgent financing for improved resilience**

**BCAS**

Key note presenter: **Golam Rabbani**, Fellow, BCAS

Panelists: **Dr. Mizan R Khan**, Professor, North South University

**Professor Saiful Islam**, IWFM, BUET

**Ar. Tasneem Tariq**, Assistant Professor, Department of Architect, BUET

*Open Discussion*

Session Chair: **Dr. A. Atiq Rahman**, Executive Director, BCAS

**14:00 – 15:30 Parallel Session 2**

*Seminar Room*

**Out of the Box Session**

**ICCCAD**

Moderator: **Sarder Shafiqul Alam**, Coordinator, Urban Climate Change, ICCCAD

Panelists: About six persons to be selected from session participants

*Open Discussion*

Session Chair: **Mostofa Quaium Khan**, Advisor, Bangladesh Urban Forum

**15:30 – 16:00 TEA BREAK**

**16:00 – 17:30 Second Plenary Session**

*Auditorium*

**Transforming waste into resources: Bangladesh perspective and prospects**

**FSM Network**

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Keynote Presenter	<b>Professor Dr Feroze Ahmed</b> , Professor Emeritus, Stamford University
Moderator	<b>Hasin Jahan</b> , Country Director, Practical Action Bangladesh
Panelists	<b>Dr Md. Abdul Mueeed</b> , Additional Director, Dept. of Agricultural Extension Ministry of Agriculture <b>Mr Shafiqul Islam Akand</b> , Superintending Engineer, Local Govt. Engineering Division, Ministry of Local Government, Rural Development & Cooperatives <b>Mirza Shawkat Ali</b> , Director of Climate Change and International Convention, Department of Environment, Ministry of Environment and Forests
<i>Open Discussion</i> Sum up and Conclusion	<b>Md Khairul Islam</b> , Country Director, WaterAid Bangladesh

## DAY TWO

SUNDAY, 26<sup>th</sup> NOVEMBER 2017

09:30 – 11:00

*Third Plenary Session*

*Auditorium*

**Concepts of Building Resilience and Inclusion in Bangladeshi Cities**

**GIZ**

Keynote Speaker:	<b>Mr. Ulf Neupert</b> -Team Leader, Urban Management of Internal Migration due to Climate Change  <b>Mr. Md. Shakil Akhter</b> , Professor, Department of Urban and Regional Planning, Bangladesh University of Engineering and Technology, Dhaka- Bangladesh.  <b>Mr. Kazi Md. Ibrahim</b> , Asstt. Director, Social Welfare Department, Dinajpur
Speaker/Panelist:	<b>Mr. Moniruzzaman Moni</b> -Mayor, Khulna City Corporation  <b>Mohammad Mossaddique Hossain</b> -Mayor, Rajshahi City Corporation  <b>Rokeya Rahman</b> , Chairperson, Federation of Community Development Committee (CDC), Khulna  <b>Hazera Khatun</b> , Joint Secretary, CDC Town Federation, Khulna
<i>Open Discussion</i>	
Session Chair:	<b>Mr. Mostafa Quaium Khan</b> , Adviser at Bangladesh Urban Forum

11:00 – 11:30

**TEA BREAK**

11:30 – 13:00

*Parallel Session 3*

*Auditorium*

**City leadership and Multi-stakeholder Partnership for climate resilient Urban Development**

**BRAC**

Presenters:	City leadership and Multi-stakeholder Engagement for climate resilient Urban Development ( <b>Mayor Satkhira</b> )  Climate resilient Smart city by <b>Prof. Akter Mahmud</b> , <b>Bangladesh Institute of Planners</b>
Discussants:	<b>Professor Ainun Nishat</b> , BRAC University



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**Tazkin Ahmed**, Mayor, Satkhira Municipality

**Ashekur Rahman**, Sustainable Urban Development Specialist, UNDP

**Dr. Saiful Momen**, Assistant Professor, Department of Environmental Science and Management, North South University

*Open Discussion*

Moderator: **Dr. Saleemul Huq**, Director, ICCCAD

11:30 – 13:00

*Parallel Session 4*

*Seminar Room*

**Role of Women in Building Urban Resilience: CARE Bangladesh Experience**

**Care Bangladesh**

Welcome Speech: **Mehrul Islam**, Director-PEARL, CARE Bangladesh

Panelists: **Palash Mondal**, Coordinator-Resilience and Climate Change, CARE Bangladesh

**Dilruba Haider**, Programme Specialist, DRR, Climate Change and Humanitarian Actions, UNWomen, Bangladesh Country Office

**Mr. Ashekur Rahman**, Urban Programme Analyst, UNDP

**Nurun Nahar Chowdhury**, Deputy Director, Department of Disaster Management (DDM)

**Dr. Ahsan Uddin Ahmed**, Climate Change Expert

*Open Discussion*

Moderator: **Humaira Aziz**, Director-Women Empowerment, CARE Bangladesh

13:00 – 14:00

**LUNCH BREAK**

14:00 – 15:30

*Fourth Plenary Session*

*Auditorium*

**Climate resilient cities: In Search of an Alternative**

**ActionAid Bangladesh**

Panelists: **Mr. Ahsan Habib Kamal**, Mayor of the Barisal City Corporation

**Mr. Khurshid Alam**, Asst. Country Director of UNDP

**Mr. Akter Mahmud**, Professor Dept. of Urban & Regional Planning, JU, Dhaka

**Dr. Nurun Nahar**, Deputy Chief, Programming Division, Planning Commission, Ministry of Planning

**Dr. Abul Kalam**, President, BIP

*Open Discussion*

Chair and Moderator: **Ms. Farah Kabir**, Country Director, ActionAid

15:30 – 16:00

**TEA BREAK**

16:00 – 17:30

*Fifth Plenary Session*

**Lessons Learnt on Urban Climate Change Adaptation and Resilience from ACCCRN**

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Partners in Bangladesh

**ACCCRN-ICCCAD**

- Keynote Presenter: **Sarder Shafiqul Alam**, Country Coordinator, ICCCAD-IUB
- Panelists: **Jubair Rashid**- Senior Project Officer, ICLEI- Local Government for Sustainability, South Asia  
**Zulfikar Ali**, Mayor, Mongla Municipality
- Open Discussion*
- Session Chair: **Mostafa Quaium Khan**, Advisor, Bangladesh Urban Forum

**DAY THREE**

**MONDAY, 27 NOVEMBER 2017**

09:30 – 11:00

*Parallel Session 5*

*Seminar Room*

**Climate Change and Urban Woman and Children: Impacts and Implications for Adaption in Low and Middle Income Communities**

**Awaas Sewa**

- Keynote presenter: **Ms. Bijal Brahmhatt**, Director, Awaas Sewa Private Limited  
**Bharati Bhonsale**, Program Manager, Mahila Housing Sewa Trust  
**Quamrul Islam**, Nari Maitree, Dhaka  
**Tasfia Tasnim**, Research Officer, International Centre for Climate Change and Development (ICCCAD) at Independent University, Bangladesh (IUB)
- Open Discussion*
- Session Chair: **Sarder Shafiqul Alam**, Coordination, Urban Climate Change, ICCCAD

09:30 – 11:00

*Parallel Session 6*

*Auditorium*

**Prioritizing climate change adaptation and local level resilience in cities in Bangladesh**

**Organization:** Christian Aid, German Red Cross and Bangladesh Red Crescent Society (BDRCS)

**Lead member organization:** Christian Aid (CA) and German Red Cross (GRC)

- Keynote presenter: **Raymond Zingg**, Forecast based Financing' (FbF), German Red Cross – Bangladesh
- Panelist: **Professor Afsana Haque**, PhD, Head, Department of Urban and Regional Planning, BUET  
**Sanjib Biswas**, Head of Programme, Christian Aid Bangladesh  
**Mr. Hassan Ahmadul**, Technical Advisor, Red Cross Red Crescent Climate Centre

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**Mirza Shawkat Ali**, Director, DoE

*Open Discussion*

Moderator: **Shakeb Nabi**, Country Director, Christian Aid Bangladesh

11:00 – 11:30

**TEA BREAK**

11:30 – 13:00

*Sixth Plenary session*

*Auditorium*

**Resilience to Climate Change and Problems to Solution**

**ICCCAD**

Keynote speech: **Dr. Ishrat Islam** on Mainstreaming Climate Change in Urban Development: A review of Policy, Plans and Acts.

Panel Discussant: **Hasina Mushrofa**, Head of Urban Development Programme, BRAC

**Representative from MAB**

**Representative from City Corporation**

**Mostafa Quaium Khan, Adviser, BUF**

*Open Discussion*

Session Chair: **Dr. Saleemul Huq**, Director, ICCCAD

13:00 – 14:00

**Concluding Session**

Summary findings sharing by **Sarder Shafiqul Alam**, Coordinator, Urban Climate Change, ICCCAD and sharing plan for the next annual conference

Designated Discussant: **Hasina Mushrofa**, Head, Urban Development Programme, BRAC

Feedback by Participants

Chief Guest: **Abdul Malek**, Secretary, Local Govt. Rural Development & Co-Operatives

Session Chair: **Dr. Saleemul Huq**, Director, ICCCAD-IU

## ANNEX-2: List of Participants

### List of Participants

The Second Annual National Conference on Urban Resilience to Climate Change, Institute of Architects, 25 <sup>th</sup> to 27 <sup>th</sup> November 2017		
List of Participants		
Organization	Name	Serial
3 Colors	Najmus Saker	1
ACME Electronics Ltd.	Hasanuzzaman	2
ActionAid Bangladesh	Mahfuza Akter Mala	3
ActionAid Bangladesh	Ms. Everjoice J Win	4
ActionAid Bangladesh	Mr. Richard Miller	5
ActionAid Bangladesh	Md. Azad Moral	6
ActionAid Bangladesh	Ms. Khinklin Kyi	7
ActionAid Bangladesh	Gewelle Sanchez	8
ActionAid Bangladesh	Asha Alamgir	9
ActionAid Bangladesh	Nazkia Islam	10
ActionAid Bangladesh	Ms. Jeanett Shapla Chowdhury	11
ActionAid Bangladesh	Mr. Tanjir Hossain	12
ActionAid Bangladesh	Dr. Nurun Nahar	13
ActionAid Bangladesh	Partha Protim Mazumder	14
ActionAid Bangladesh	Mr. A M Nasir Uddin	15
ActionAid Bangladesh	Mr. Sariful Islam	16
ActionAid Bangladesh	Tanjil Hossain	17
ActionAid Bangladesh	Rahima Sultana Kazal	18
ADAMS	M. R. Raja	19
ADAMS	S. M. Ali Aslam	20
ADB	Md. Nurullah	21
ADITI	Manaj Mondol	22
Advisor, Bangladesh Urban Forum	Mostafa Quaium Khan	23
AOSED	Md. Zakir Hossain	24
Aparajita Crafts Proprietor	Anowara Begum	25
APDC AID	Abu Naser Anik	26
ASHOKA	Saurav Roy	27
Assistant Director, GOB	Md. Enayet Hossain	28
Assistant Professor	Sajal Chowdhury	29
Associate Professor, Anthropology	Mahbub Alam	30
AVAS Barisal	Rahima Sultana Kazal	31
Awaas Sewa	Bijal Brahmhatt	32
Awaas Sewa	Ms. Shaheen Akter	33

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<b>Organization</b>	<b>Name</b>	<b>Serial</b>
Bangladesh Agricultural University	H. M. Solayman	34
Bangladesh Agricultural University	Sharaban Nasmi	35
Bangladesh Centre for Advanced Studies	Mr. Golam Rabbani	36
Bangladesh Centre for Advanced Studies	Ms. Soburun Nessa Chowdhury	37
Bangladesh Centre for Advanced Studies	Mr. Khandaker Fokhrul Alam	38
Bangladesh Centre for Advanced Studies	Olena Reza	39
Bangladesh Resource Improvement Trust	Mr. Rahatul Ashekin	40
Bangladesh University of Engineering and Technology	Paromita Nakshi	41
BARCIK	Md. Zahangir Alam	42
BARCIK	Sukanta Sen	43
BARI	Dr. Ranjit Sen	44
BASA	Sabrina Ahmed	45
BBC Media Action	Aniqa Tasnim Hossain	46
BCAS	Sharmin Shimi	47
BCAS	Monowarul Islam	48
BDRCS	Modasher Ahmed	49
BIDS	Begum Khaleda Yasmin	50
BIP	Prof. Akter Mahmud	51
BIP	Golam Rahman	52
B MDF	Syed Hasinur Rahman	53
BRAC	Md. Shahinur Rahman	54
BRAC	Md. Ashaduzaman Asad	55
BRAC	Nazria Islam	56
BRAC	Shashanka Saadi	57
BRAC	Md. Mosur Rahman	58
BRAC	Md. Wadud	59
BRAC	Khan Md. Mozahidur Rahaman Sourov	60
BRAC	Sharmina Yeasmin	61
BRAC	Sharmin Akter	62
BRAC	Choudhury Md. Fahim Ragib	63
BRAC	Sajal S. Saha	64
BRAC	Ajonin Naher	65
BRAC	Mohammad Shahinul Rahman	66
BRAC	Moushumi Zahur	67
BRAC	Hasina Mushrofa	68



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Organization	Name	Serial
BRAC	Washim Akhter	69
BRAC	Sarower Hossain Khan	70
BRAC	Shamim Hossain	71
BRAC	Sajal Saha	72
BRAC	Kamal Hossain	73
BRAC	Sk. Mojibul Huq	74
BRAC	Md. Saif Iqbal	75
BRAC	Mahira Husain Khan	76
BRAC	Rezvina Parvin	77
BRAC	Goutam Kumar Adhikari	78
BRAC	Jobayear Ahmed	79
BRAC	Shamima Mamotaz	80
BRAC	Mafruha Alam	81
BRAC	Dr. Murshida Rahman	82
BRAC	Maria Ahmed	83
BRAC	Zeenath Sultana	84
BRAC	Prof. Dr. Ainun Nishat	85
BRAC	Rozina Akter	86
BRAC	Sonia Akter	87
BRAC	Mst. Afroza Khanom	88
BRAC	Ajnin Nahar	89
BRAC	Nurunahar	90
BRAC	Choudhury Md. Fahim	91
BRAC	Khadija Begum	92
BRAC	Mahmuda Sultana	93
BRAC	Farzana Siddika	94
BRAC	Mishat Jahan	95
BRAC	Ahmed Kadir	96
BRAC	Mansur Rahman	97
BRAC	Rabeya	98
BRAC	Samsunnahar	99
BRAC	Eanur	100
BRAC	Jorila	101
BRAC	Md. Shaheduzzaman Shamol	102
BRAC	Tahmina Aktar	103
BRAC	Chameli Akther	104

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<b>Organization</b>	<b>Name</b>	<b>Serial</b>
BRAC	Pakhi Begum	105
BRAC	Rima	106
BRAC	Md. Shahid Gazi	107
BRAC	Farjana Popy	108
BRAC	Atoar Rahman	109
BRAC	Milan Kanti Barua	110
BRAC	Md. Ahmed Wadud	111
BRAC	Md. Nur Alam	112
BRAC	Md. Moshur Rahman	113
BRAC	Abdul Kadir	114
BRAC	Marium	115
BRAC	Parvin	116
BRAC	Jorina	117
BRAC	A. T. M. Ridwanul Hoque	118
BRAC	Ataur Rahman	119
BRAC	Sarwar Hossain Khan	120
BRAC University	Miskat Tahan	121
Bridge	Mohammad Zakaria	122
Bridge Foundation and Democracywatch	Natasha Kabir	123
BRIT	Rahatul Ashekin	124
BRUP	Parvin Akhtar	125
BRUP	Bobita	126
BRUP	Jharna	127
BRUP	Anjum Ara	128
BSMMU	Syeda Tasnim Jannat	129
BSSF	Kamal Uddin Ahmed Chowdhury	130
BSSF	Md. A. Halim Miah	131
BUET	Nawshin Tabassum	132
BUET	Tahsin Tabassum	133
BUET	Anisur Rahman	134
BUET	Ar. Tasneem Tariq	135
BUET	Dr. Afsana Haque	136
BUET	Dr. Ishrat Islam	137
BUET	Dr. Mohammad Shakil Akther	138
BUET	Saraf Anjum Disha	139
BUET	Mumtahina Qumqum	140

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<b>Organization</b>	<b>Name</b>	<b>Serial</b>
BUET	mohammad nurul alam	141
BUP	Nur junnatul fariha	142
C40 Cities	Neuni Farhad	143
Capacity Building Service Group	Dewan Abu Ehsan	144
CARE Bangladesh	Masrula Aktar	145
CARE Bangladesh	Maksuda Akter	146
CARE Bangladesh	Muzibun Nesa Tajria	147
CARE Bangladesh	Kh. Hasanul Banna	148
CARE Bangladesh	Hasibul Hasan Shaikat	149
CARE Bangladesh	Siam Khan	150
CARE Bangladesh	Palash Mondal	151
CARE Bangladesh	Mehrul Islam	152
CARE Bangladesh	Nurun Nahar Chowdhury	153
CARE Bangladesh	Humaira Aziz	154
CARE Bangladesh	Biswojit Kumar Roy	155
CARE Bangladesh	Mamunur Rashid	156
CARE Bangladesh	Sadaka Tamanna	157
CARE Bangladesh	Md. Mahabbat Ali	158
CARE Bangladesh	Md. Daud Hossain	159
CARE Bangladesh	Md. Asor Uddin	160
CARE Bangladesh	Md. Rashadur Sumon	161
CARE Bangladesh	Fatema Akter	162
CARE Bangladesh	Nurjahan	163
CARE Bangladesh	Hasne Ara	164
CARE Bangladesh	Shahanaj	165
CARE Bangladesh	Rokeya	166
CARE Bangladesh	Parul	167
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The Daily Star, November 29, 2017

## Easing the pressure on Dhaka

Developing climate resilient and migrant-friendly secondary cities

**Saleemul Huq**

The second Annual National Conference on Urban Resilience was just held in Dhaka and in three days it brought together several hundred people from different sectors including the central government, local government, mayors and town planners, as well as researchers, academics, NGOs and private sector actors to discuss the future pathways to build urban resilience in Bangladesh.



Photo: Prabir Das

While the first annual conference, held a year ago, -focused mostly on the problems of life in cities as well as urbanisation, this year the discussions moved toward solutions to those problems.

I will not go into the many issues discussed and recommendations made, but will highlight the major overarching issues and propose one possible solution.

The first of the three main overarching problematic issues for Bangladesh is the population of the country, which, despite major gains in reducing the growth rate, is still headed towards well-over the 200 million mark within the next two decades. Most of these people will be young and in need of education and skills. A problem closely associated with this is the rapid rural to urban migration that is already taking place, which means that the country will have a 50 percent urban population in less than two decades.

The second overarching issue is that in Bangladesh, most of this rural-to-urban migration ends up in Dhaka, which is already the fastest growing mega-city in the world and will find it almost impossible to absorb more and more migrants.

The third and final overarching issue is climate change and its impacts, mainly in low-lying coastal areas. This will inevitably cause millions of people to eventually lose their livelihoods of farming and fishing due to climate change-induced sea level rise and force them to migrate to Dhaka.

Given this three-pronged set of overarching issues, one possible approach worth exploring is presented below.

We should consider investing in at least a dozen secondary cities to enable them to become climate resilient as well as migrant-friendly at the same time. If each of these dozen cities can welcome and provide productive citizenship to a million people, then the pressure on Dhaka will be relieved and future climate-induced migrants can migrate with dignity rather than under duress.

The concrete proposal to consider is to allow for a bottom-up, participatory approach from the secondary cities themselves rather than taking a top-down planning approach. This could be done through initiating a competition for all secondary towns to submit proposals for developing resilient city plans as well as an initial pilot project at the same time.

The towns could be given some initial funding to develop their proposals with some guidance on topics to be included and also to make it as participatory as possible. These proposals could then be evaluated by an expert committee which would then award each town with further funding to develop their resilience plan and pilot project proposal. The criteria for judgement would require both climate resilience and migrant friendliness to be addressed in each proposal.

The evaluation committee would then select the 10 or 12 best proposals and award each chosen town with funding to implement their pilot action proposal. If 40 towns participate in the competition and each town is awarded Tk 5 lakh to prepare their initial proposal, this would cost around Tk 2 crore.

Then, Tk 5 crore might be awarded per town to the cities for implementing their pilot action. If 10 or 12 towns are selected, this would require Tk 50 crore or Tk 60 crore respectively.

Hence this idea may require an allocation of around Tk 50–60 crore in total. This could quite easily be funded by the Bangladesh government's own Climate Change Trust Fund for 2018/19.

Such a bottom-up competition would help unleash the talents and ideas of mayors and citizens of different towns around the country and enable the citizens of those towns to determine their own futures.

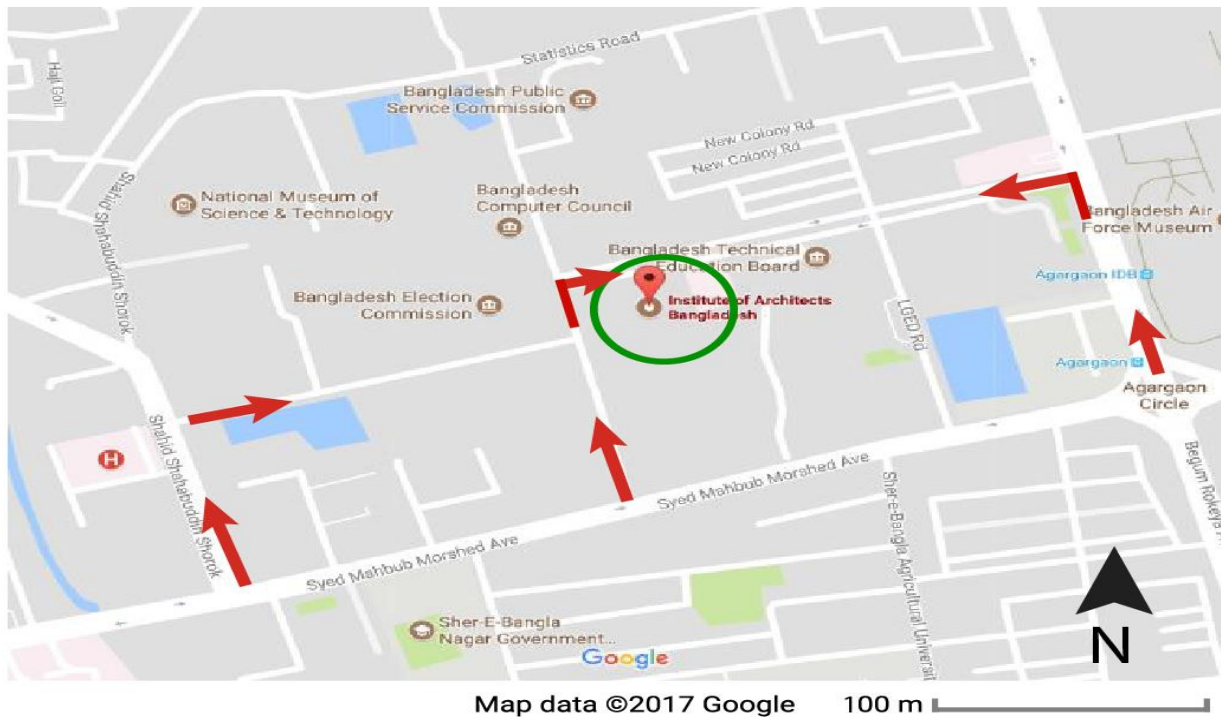
News Link: <http://www.iccad.net/happening-now-second-annual-national-conference-on-urban-resilience-to-climate-change/>  
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## 2nd Annual National Conference on Urban Resilience to Climate Change



### Institute of Architects Bangladesh

Agargaon, Dhaka, Bangladesh





# Conference Proceedings



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DEUTSCHE ZUSAMMENARBEIT

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BANGLADESH  
**FSM**  
NETWORK

**ITN-BUET**  
Centre for Water Supply and Waste Management

**SNV**

**WSUP**  
Water & Sanitation  
for the Urban Poor

**WaterAid**

**PRACTICAL ACTION**  
Technology challenging poverty



**ICCCAD**  
International Centre for  
Climate Change and  
Development



**USAID**  
FROM THE AMERICAN PEOPLE