Orientation Course on AMRUT

Government of Odisha

Individual Capacity Building Programme

Supported by Ministry of Urban Development, Government of India

Indian Institute for Human Settlements

Urban Practitioners' Programme

COURSE COMPLETION REPORT

IIHS Bangalore City Campus

1st - 3rd March| 2016

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Executive Summary

Course Title	AMRUT Orientation Course: Government of Odisha
Dates	01 – 03 March 2016
Duration	3 days
Facilitators	Sathish Selvakumar, Amir Bazaz, Sudeshna Mitra, Geetika Anand, Ravi Chopra, Sahil Sasidharan, Anushree Deb
Guest Faculty	Vikas Desai, M N Thippeswamy
No. of Learners	38
Location	IIHS Bangalore City Campus

Indian Institute for Human Settlements (IIHS) and Government of Odisha have signed an MoU under the Individual Capacity Building Programme of AMRUT supported by Ministry of Urban Development (MoUD), Government of India (GoI). The first module of training i.e., an orientation course on AMRUT was concluded successfully with 38 participants representing the State Government, Parastatals, and Urban Local Bodies of the nine Mission cities in Odisha.

The course was conducted for a diverse mix of practitioners from public health and engineering wings of these organisations. The facilitators, both from IIHS and outside, also represented a diverse range of domestic and international experience in various fields including to urban planning, urban infrastructure and services, public health and engineering, and capacity building in the urban sector.

Throughout the orientation course, the participants were constantly engaged in understanding existing challenges of urban India, especially with respect to basic services, infrastructure and civic amenities, in order to comprehend the need for this Mission and then understand its guidelines and processes. The course proved to be a catalyst for the participants, enabling a comprehensive understanding of the Mission and its components. The facilitators used a mix of international and domestic case studies, group exercises, discussions, presentations, audio-visual material and field visits in order to achieve the intended learning outcomes in a learner-centric manner.

Course Description

The Orientation Course on AMRUT for Government of Odisha was part of the Individual Capacity Building Plan under AMRUT, supported by the Ministry of Urban Development. The course outline was developed based on the template shared by the National Institute of Urban Affairs (NIUA).

The three-day course focused on discussing the challenges faced by urban India in the context of the Mission, and understanding the Mission guidelines and toolkit comprising thrust areas, components, funding, processes, reform management, monitoring and review process. The modules introduced participants to the urban challenges, potential projects and possibilities under the Mission, and contextualized similar transformations through established practices from India and across the world.

The pedagogy included the following – thematic lectures, case study presentations, guest presentations/lectures, participant discussion sessions, group exercises, audio-visual material and field visit to a septage management facility. Participants, in groups, worked on specific exercises developed for this course. In addition to these sessions, participants were given knowledge checks (written quiz) both at the beginning and the end of the course to test their understanding of AMRUT before and after the orientation course.

Session Details

DAY 1

Session I – Introductions and Course Overview

The workshop opened with a quick set of introductions of the participants and the faculty members. A brief introduction about IIHS and its activities in urban capacity building was also shared, followed by an introduction to the Individual Capacity Building Programme under AMRUT. Few rules and ground conditions were set thereafter, enabling a conducive learning environment. This included participants writing their official designations on a post-it and leaving them aside for the duration of the course. After the overview of orientation course was shared, the participants undertook a knowledge check on AMRUT.

Session II – Urban Management in India: Overview and Challenges

This session focussed on challenges of urbanisation at a global scale and in India. Status of basic services and urban infrastructure in India was discussed to bring about the urgency in dealing with the quality of life issues in our cities and towns. The criticality of the role played by each officer in the room was emphasized. It was highlighted that the decisions that they made and did not make had a global impact and contributed to India's commitment towards the Sustainable Development Goals (SDGs).

## Session III – Guest Lecture on Public Health and Engineering

Dr. Vikas Desai, Technical Director of Urban Health and Climate Resilience Centre (UHCRC) at Surat, delivered a guest lecture, discussing the experiences of public health and engineering in Surat. The impacts on health outcomes due to proper water supply and underground drainage network in the city were discussed. Best practices on Surat's solid waste management were also shared. She also spoke about the advantages of the city administration taking responsibility for urban health outcomes. Dr. Desai pointed out that even though public health was not the core responsibility of the participants, they needed to see that their work created positive health outcomes in their cities.

Session IV – Odisha Overview & City Diagnostics (Group Exercise)

In this session, IIHS faculty presented status of basic services and select urban infrastructure in urban Odisha and Mission cities, using data from Census of India, Service Level Benchmarking, and Service Level Improvement Plans (SLIPs) prepared under AMRUT. This was followed by a facilitated group exercise on city diagnostics. The groups were formed on the basis on current posting. Using tools like shit-flow diagram, water supply and solid waste management chain diagrams, participants from different AMRUT cities undertook an assessment of situation of these infrastructure and services in their cities. Transportation scenario and issues of open spaces and parks were also reported. The

session concluded with a presentation on city diagnostics and discussion on emerging issues that concern almost all the mission cities in Odisha.
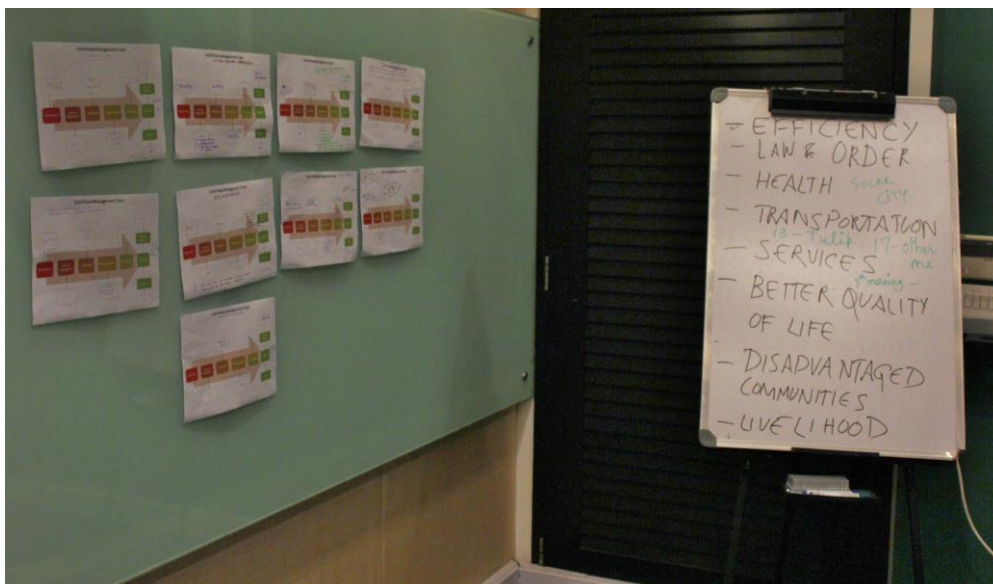
Session V – Government's Response to Urban Challenges

Having discussed the status of basic services in the previous session, the aim of this session was to expose participants to Central Government's response to urban challenges since Independence. This was done through a presentation on Five Year Plans, landmark events in urbanization including National Commission on Urbanisation, HPEC, Service Level Benchmarking (SLBs), etc. Sectoral policies, schemes and programmes were also discussed. JNNURM being the first national programme on urban infrastructure and reforms was discussed in detail followed by the current missions and programmes including AMRUT, SBM-Urban, HRUDAY, PMAY, etc. Eligible sectors, cities and mission outlays were briefed to the participants along with Odisha specific details.

DAY 2

Session I – The Solid Waste Management Story of Bengaluru

Based on a request made by the participants on Day 1, a session on the Case of Bengaluru in managing its 5000 tonnes per day of solid waste was conducted. IIHS faculty, Shyamala Suresh, who is an active member of the SWM initiatives in the city, made the presentation. The participants were urged to take the learnings from the experience of Bengaluru and avoid the shortcomings in their own cities.

Session II – Understanding AMRUT: Guidelines, Reforms and Processes

The aim of this session was to orient the participants to each and every aspect of the Mission as per the provisions and processes outlined in the Mission Guidelines and supporting toolkits. The session began with an introduction to the purpose and objectives of AMRUT, its thrust areas, components, scope and overall approach. Then the session moved on to covering the details of funding under the Mission, the process of both the release of funds and the request for funds along with the detailed process of preparing Service Level Improvement Plans (SLIPs) at the city level and the process of preparing the State Annual Action Plan (SAAP) at the State level. Subsequently, the execution and programme management strategy under the Mission was discussed and the session was concluded with a detailed overview of the set of 11 reforms proposed as part of the Mission along with the monitoring and review mechanism under AMRUT.

Session III - Overview of Odisha SAAP

The aim of this session was to familiarise participants with the Odisha State Annual Action Plan (SAAP). Participants were taken through the various components of the SAAP. An analysis of the city-wise and sector-wise financial allocation was presented for the financial year 2015-16 and entire AMRUT duration of five years.

Session IV - Perspectives on Urban Finance

This session oriented participants towards the financial elements of AMRUT, in the context of the Odisha State Annual Action Plan, the 13th and 14th Central Finance Commission report and recommendations of the High Powered Expert Committee (HPEC) on Urban Infrastructure. In light of the above, the participants were introduced to the imperatives of improving the financial strength of ULBs. Some discussion around institutional innovations such as the TN Urban Development Fund and financial innovations in the water sector were initiated. Experiences with land- based financing instruments, including TIFs, mentioned in the AMRUT guidelines were discussed. The session incorporated discussions with participants regarding their experiences with various aspects introduced in the session. The session was facilitated by IIHS faculty, Amir Bazaz and Sudeshna Mitra.

Session V - Devanahalli Field Visit - Implementation of Septage Management

The field visit, anchored by CDD Society, exposed the participants to a septage management facility in Devanahalli. The aim was to broaden the understanding of participants from just sewerage to the full cycle of sanitation that can have alternate ways of safe collection, conveyance, treatment and disposal. The participants first visited the office of Devanhalli Town Municipal Council where a session on situation of sanitation in Devanahalli and details of septage management intervention was conducted by the CDD Society. This was followed by the visit to the septage management facility where step-by-step process was described to the participants by various staff members of the CDD Society.

DAY 3

Session I - Water Supply and Wastewater Management

Mr. M.N. Thippeswamy, guest faculty, facilitated this session. The participants were keen to understand the challenges of implementing 24x7 water supply schemes, minimizing unaccounted for water (UfW), expanding UGD networks, maintenance of assets, and enhancing technical skills. Mr. Thippeswamy also shared case studies from across the world, including Cambodia, Australia, and Singapore. He also shared local cases from Bengaluru and Ramanagara. He offered his advice to the participants as and when required for the projects that they were handling.

Session II – Role of Geospatial technology (GIS) in AMRUT

Objective of this session was to spread the awareness about the role of Geospatial Technology (GIS) in the AMRUT program. The session discussed the benefits that GIS can brings in master plan preparation along with the master plan preparation process. The session also emphasized the advantages that Geospatial Technology (GIS) can bring in the project by effective use by Project Development Management Consultant in the complete life-cycle of city utility management (water supply, sewerage & septage, storm water drain) that includes Baseline study, taking actions, planning, implementation, monitoring, management and improvement. Session also highlighted importance of GIS in assessment and planning of transportation networks and open spaces for parks for both existing and future plans.

Session III – Group Work on SLIP Preparation

This group exercise allowed participants to get familiarized with and review the current SLIPs. The aim of this exercise was to urge participants to start thinking about the SLIP preparation for the next financial year (FY 2016-17).
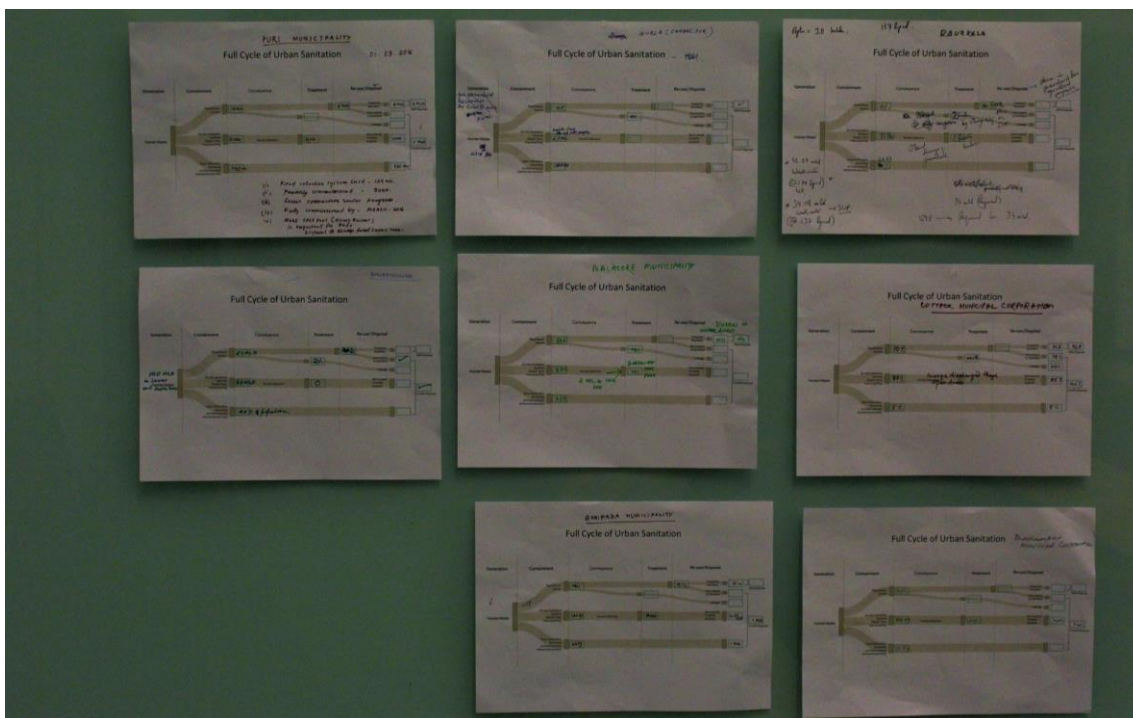
Participant Profile

The participants in the Course included a diverse set of practitioners from both public health and engineering departments of the State government, Parastatals and Urban Local Bodies (ULBs) of the 9 Mission cities. The Government of Odisha nominated 47 participants out of which 38 participants attended this orientation course. In terms of course outreach and turnout, the following statistics are relevant:

Total Nominations: 47

Course Turnout: 38

Feedback received: 36

There were a total of 38 participants at the workshop, out of which 36 of them provided their feedback. Details were collected about their designation, age and sex, and have been depicted below in graphical form.

A significantly higher proportion of male participants attended the orientation course. Out of a total of 36 participants, there were 29 males and 7 females. Majority of the participants (42%) were above 50 years of age.

Participant Profile by Gender

- Male: 81%
- Female: 19%

Participant Profile by Age

- Below 30: 6%
- 30-40: 8%
- 40-50: 33%
- Above 50: 42%
- Unspecified: 11%
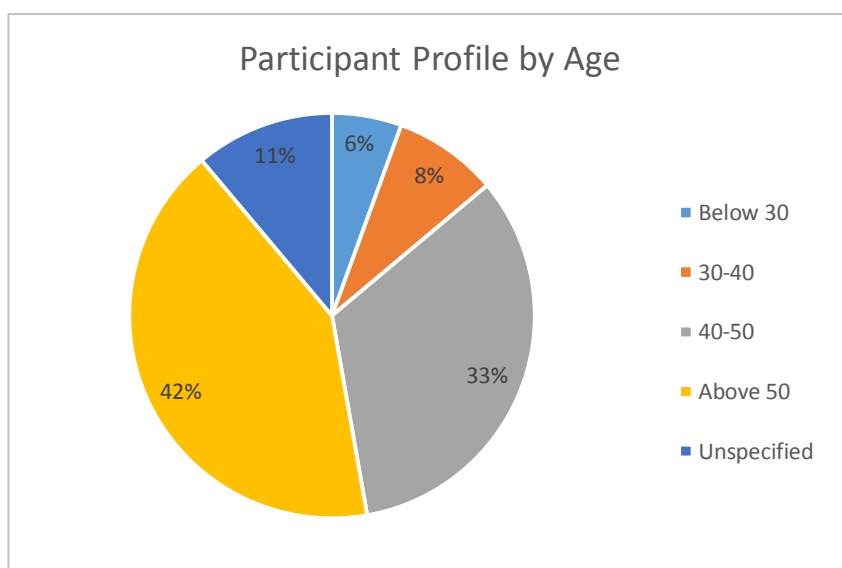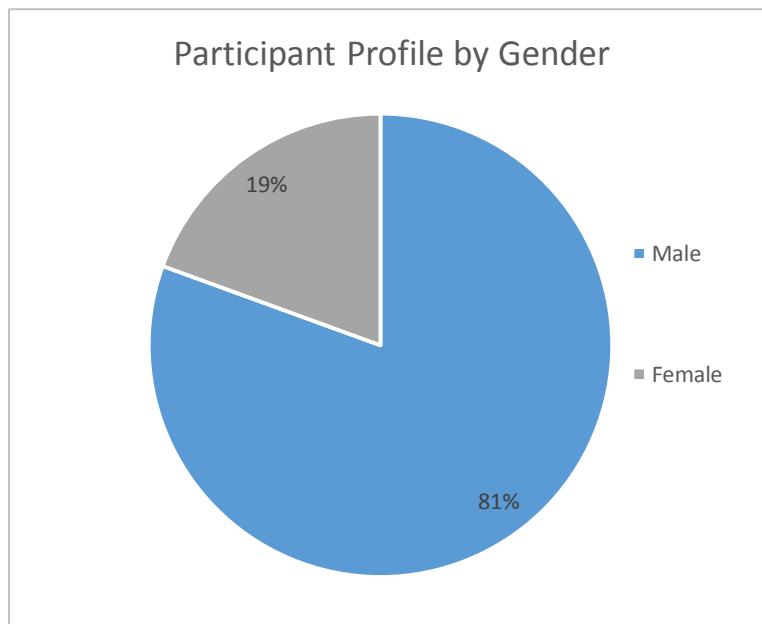
Participants' designations ranged from Junior Engineer to Project Engineer, and from Sanitary Inspector to City Health Officer. The different designations of the participants presented below. A large proportion of them were Assistant Engineers. Please see Appendix A for the list of nominees and participants.

Participant Profile by Designation

- Assistant Engineer — 22%
- Junior Engineer — 14%
- Assistant Executive Engineer — 8%
- Executive Engineer — 8%
- Assistant Project Engineer — 8%
- Sanitary Inspector — 8%
- Project Engineer — 5%
- Deputy Project Engineer — 6%
- City Health Officer — 6%
- Project Director — 6%
- Assistant Section Officer — 3%
- City Engineer — 3%
- Superintending Engineer — 3%
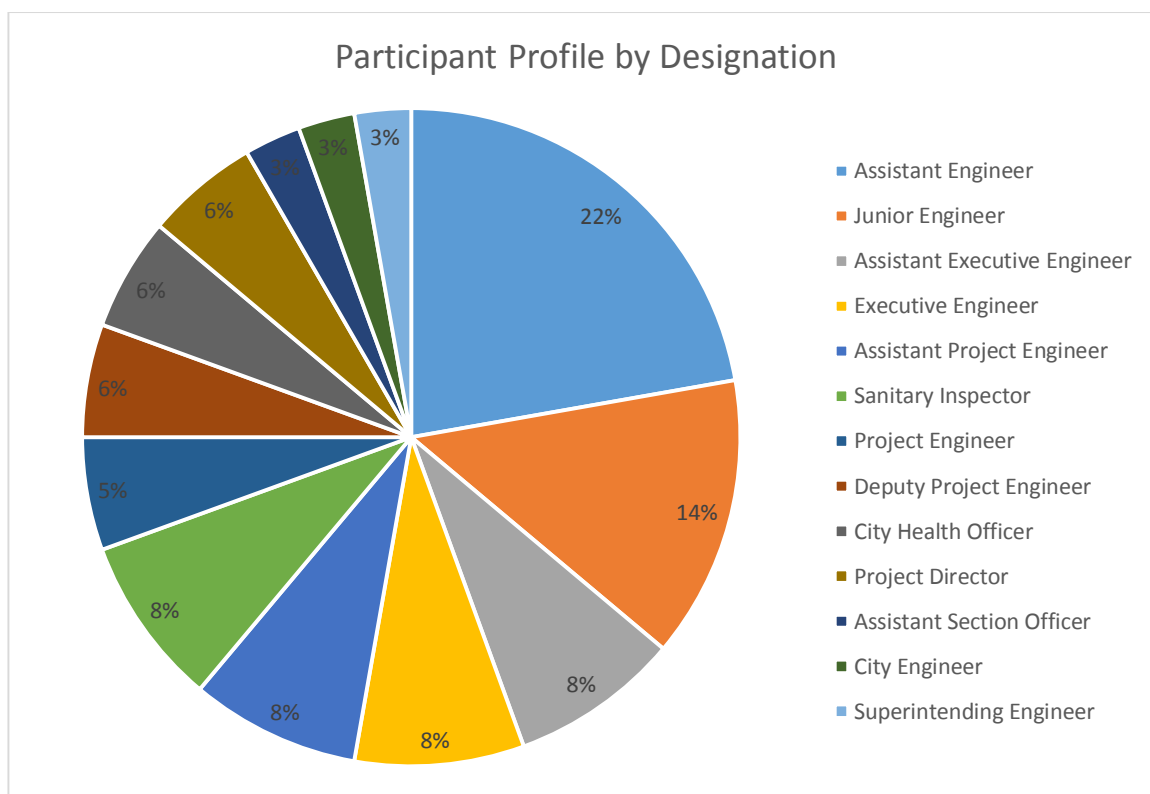
Participant Feedback

The course used the feedback format shared by NIUA. Responses from the participants were collected to understand the quality of teaching and content. The responses were collected for: Overall course and facilities, Day wise sessions learning and faculty evaluation. The participants ranked each parameter on a scale of 1-5 where:

5= Exceeded expectations | 4= Met all expectations 3= Met some expectations
2= Needs improvement | 1= Did not meet expectations at all

Feedback was collected on whether participants felt the sessions were interactive enough to reinforce learning outcomes, whether the use of case studies and illustrative material was adequate, whether the handouts and reference material provided were adequate, the quality of the presentations/lectures, and whether overall training methods used allowed proper understanding of the topic

Participant Overall Feedback

Categories (top to bottom):
- Overall support provided during the programme
- Travel and logistics management
- Quality of food and overall service
- Quality of accommodation facilities
- Convenience of location
- Quality of training venue and facilities at the venue
- Were the sessions interactive enough?
- Was use of case studies adequate?
- Were the reference materials adequate?
- How was presentation quality
- Did training methods used allow understanding of topic?
- Extent to which the course has improved skills
- Has the course resulted in improved understanding of the subject?
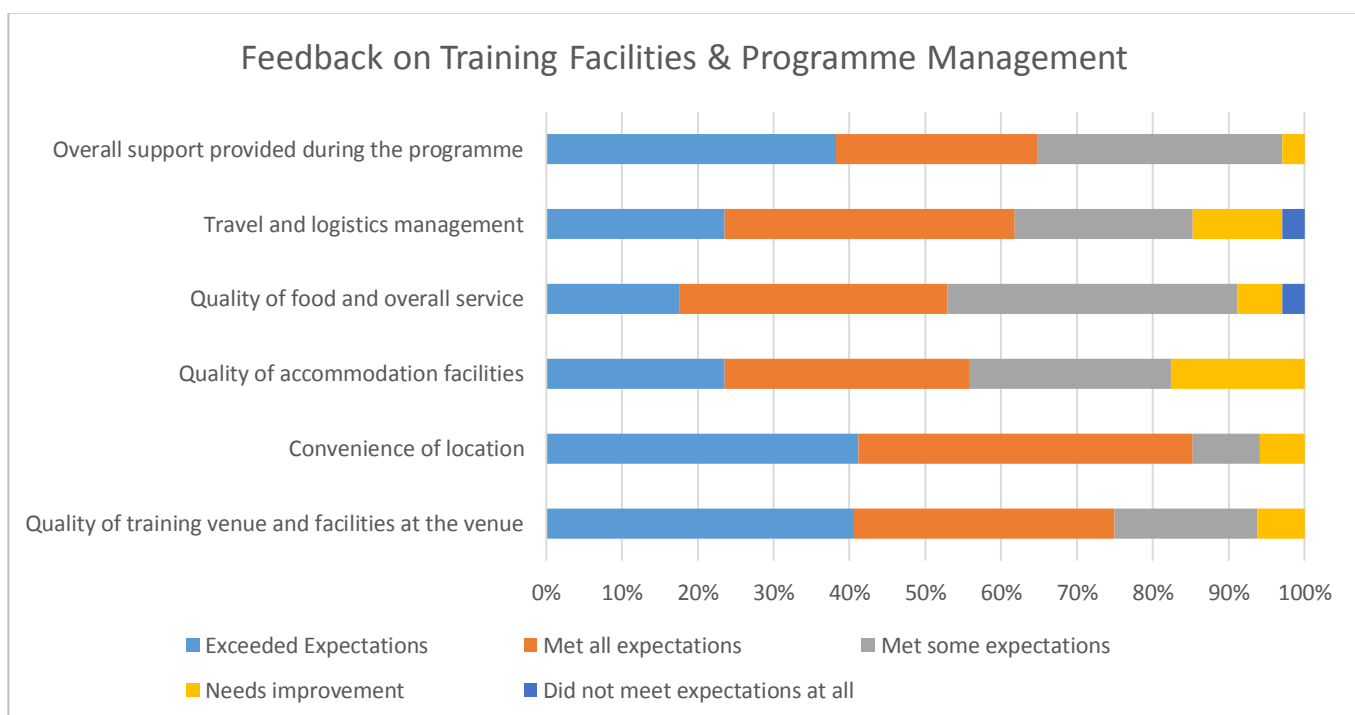- How relevant was course content for your present job?

Legend:
- Exceeded Expectations
- Met all expectations
- Met some expectations
- Needs improvement
- Did not meet expectations at all

With respect to logistics and facilities, feedback was collected on overall support provided during the programme, travel and logistics management, quality of food and overall service, convenience of location and quality of training venue and facilities at the venue.

Feedback on Training Facilities & Programme Management

Categories (top to bottom):
- Overall support provided during the programme
- Travel and logistics management
- Quality of food and overall service
- Quality of accommodation facilities
- Convenience of location
- Quality of training venue and facilities at the venue

Legend:
- Exceeded Expectations
- Met all expectations
- Met some expectations
- Needs improvement
- Did not meet expectations at all

FEEDBACK ON COURSE MODULES

This grading was carried out for each session in each day. The participants ranked each parameter on a scale of 1-5 as explained earlier. The following set of illustrations represent the gist of day-wise, session feedback:
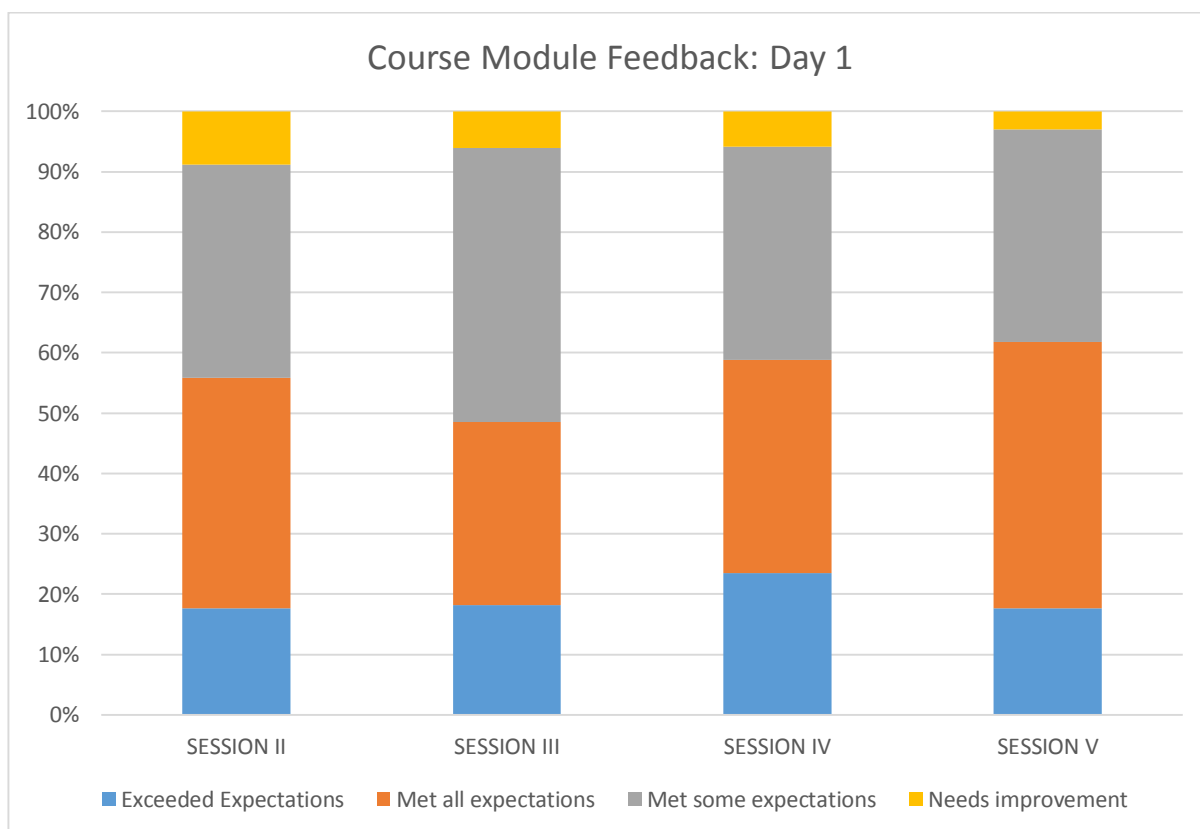
DAY 1:

SESSION II- Urban Management in India: Overview and Challenges

SESSION III- Public Health and Engineering

SESSION IV- Odisha Overview and City Diagnostics

SESSION V- Government's Response to Urban Challenges

DAY 2

SESSION I: Understanding AMRUT: Guidelines, Reforms and Processes

SESSION II: Overview of Odisha SAAP

SESSION III: Perspectives on Urban Finance

SESSION IV: Field visit to Devanahalli

DAY 3

SESSION I: Urban water supply and sanitation

SESSION II: Role of GIS in AMRUT

SESSION III: Group Exercise- SLIP
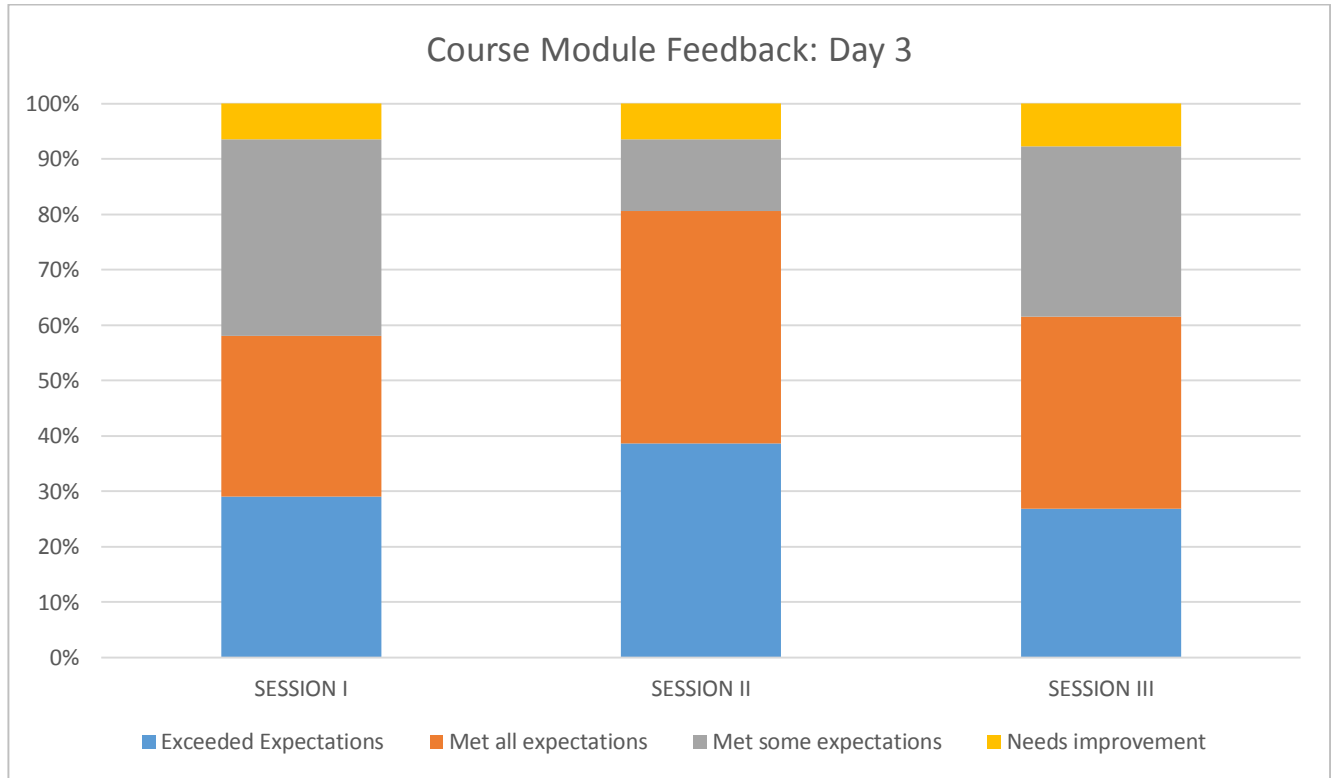
SUGGESTIONS FOR IMPROVEMENT

The responses from the daily feedback by learners were reviewed each day to analyse teaching, content and learner's concern (if any) for the remaining course. The graphs exhibit day wise feedback of the learners on how the courses could be made better. Out of the 36 participants, 7 participants did not give any suggestions for improvement at all, implying that they were completely satisfied with the quality of the course.

DAY 1:

SESSION II- Urban Management in India: Overview and Challenges
SESSION III- Public Health and Engineering
SESSION IV- Odisha Overview and City Diagnostics
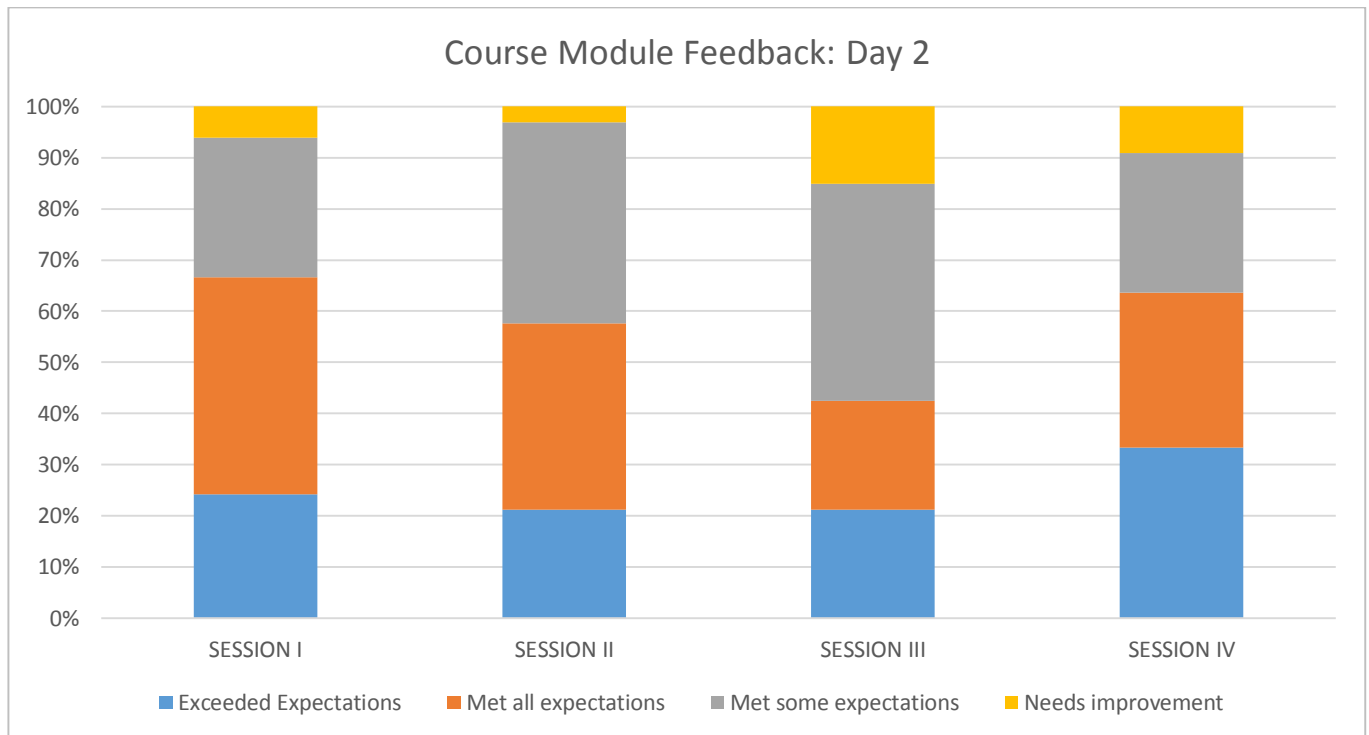SESSION V- Government's Response to Urban Challenges
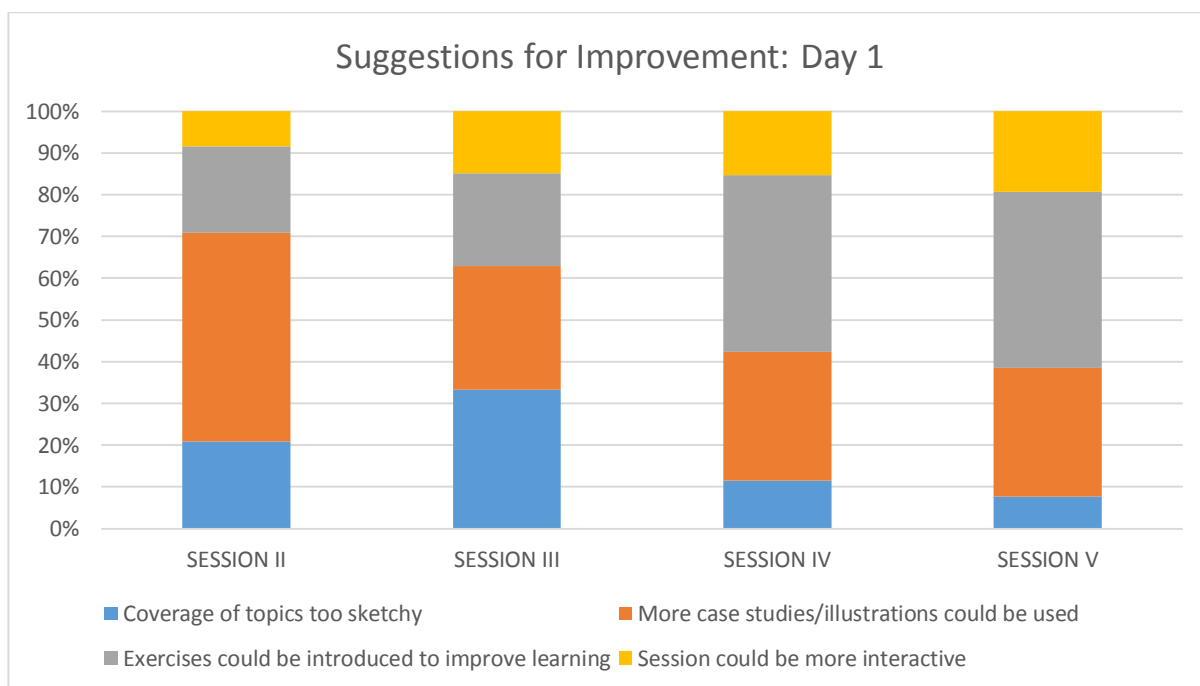
DAY 2

SESSION I: Understanding AMRUT: Guidelines, Reforms and Processes
SESSION II: Overview of Odisha SAAP
SESSION III: Perspectives on Urban Finance
SESSION IV: Field visit to Devanahalli

DAY 3

SESSION I: Urban water supply and sanitation
SESSION II: Role of GIS in AMRUT
SESSION III: Group Exercise- SLIP

FEEDBACK ON FACULTY

The participants were also asked to rate the faculty associated with each course on the same scale of 1 to 5. The average score for each faculty member was taken and made into a percentage score, as delineated below.

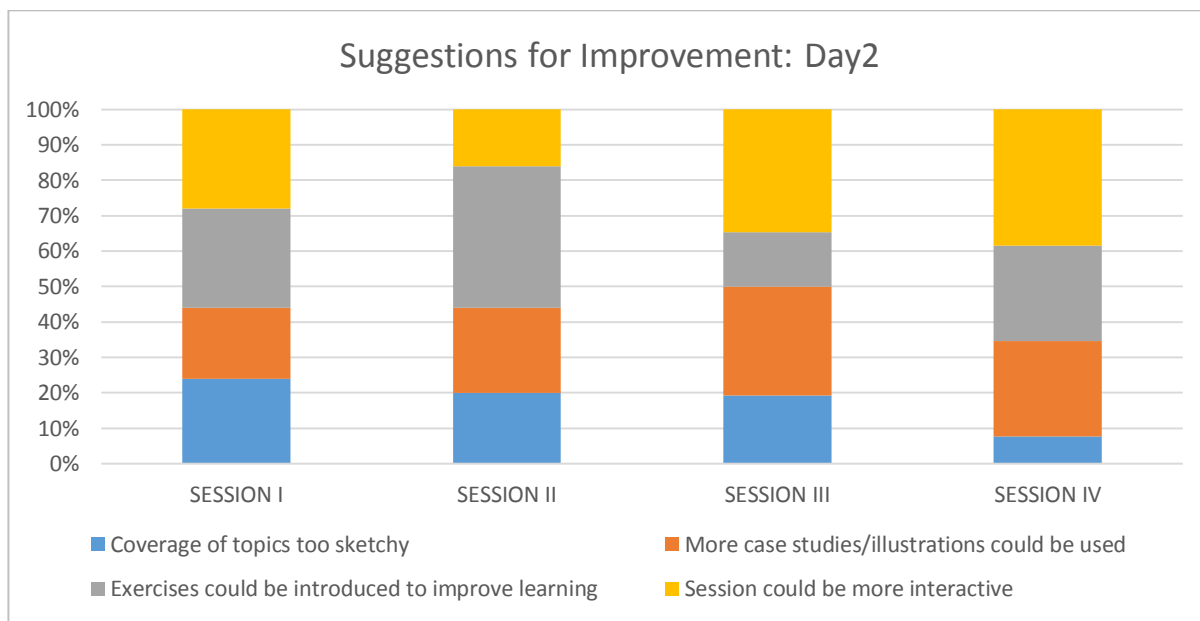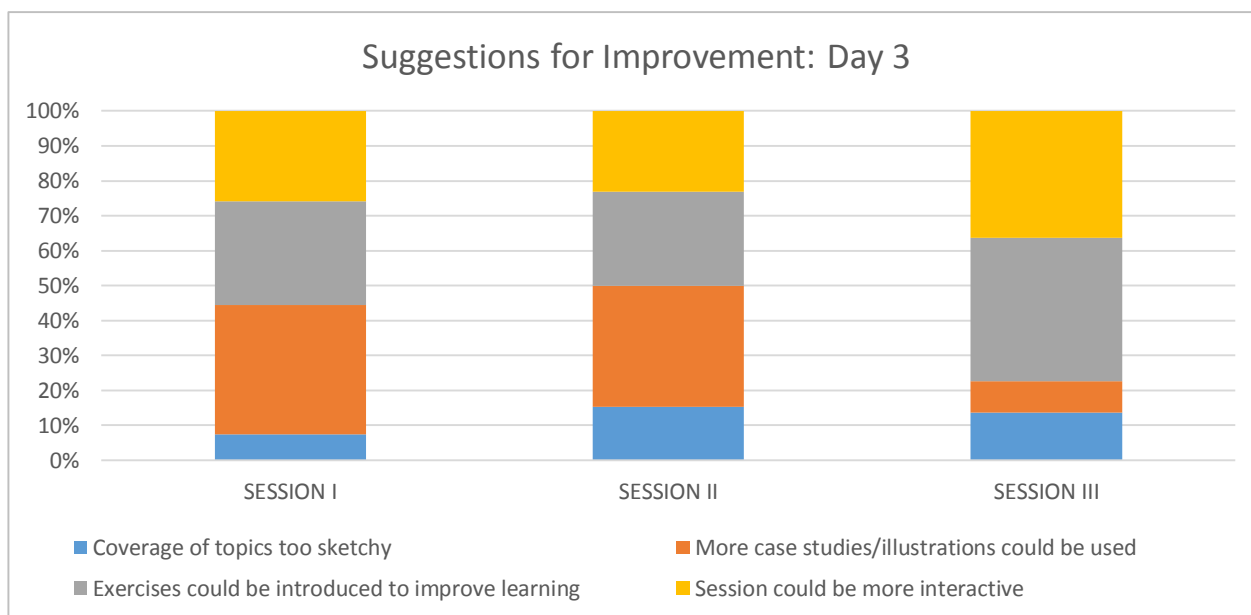| FACULTY NAME	PERCENTAGE SCORE	COURSES DELIVERED
Sathish S.	80%	1) Urban Management in India: Overview and Challenges 2) Understanding AMRUT: Guidelines, Reforms and Processes
Vikas Desai	72%	Public Health and Engineering
Geetika Anand	82%	1) Odisha Overview and City Diagnostics 2) Government's Response to Urban Challenges 3) Overview of Odisha SAAP 4) Group Exercise- SLIP
Sahil S.	78%	Understanding AMRUT: Guidelines, Reforms and Processes
Sudeshna Mitra	72%	Perspectives on Urban Finance
Amir Bazaz	68%	Perspectives on Urban Finance
CDD Team	78%	Field visit to Devanahalli
M N Thippeswamy	76%	Urban water supply and sanitation
Ravi Chopra	82%	Role of GIS in AMRUT

Other suggestions by Participants:

1. Course management related:
   - Course should be conducted periodically every 3 to 6 months.
   - Each time, the course duration should be of 4 to 5 days.
   - More days for practical training and on-field training could be allotted.
2. Teaching related:
   - Hindi or Odiya language medium should be used while teaching.
   - IT and technical training could also be a component of the training.
   - Use of more case studies should be incorporated.
   - Courses could be made more interactive.
   - Course model is required to be designed to address the challenges that are being encountered on field during the implementation of projects.

3. Logistics related:
   - Travel and accommodation arrangements should be made keeping in mind that the participants are coming from far away. The check-out time for the participants should have been a day later than it actually was.
   - Communication between the organizing team and the GoI regarding logistics should be better.
   - It would have been preferable for the course to be held in Odisha.

WHAT PARTICIPANTS HAD TO SAY

"It is a very good AMRUT orientation programme. It should ideally be conducted at six month intervals for a minimum of 4 days each time."-Ajit Kumar Sahoo, Assistant Engineer, H&UD Dept, Govt. of Orissa

"The Understanding AMRUT session could have had more discussion and time allocated to understand the topic better. The courses by Sathish S and Sahil Sasidharan had an admirable approach and method, but more interaction is required."-Mamita Bisoi, Assistant Section Officer, H&UD Dept, Govt. of Orissa

"It is a good programme. It may be conducted at 3 month intervals having a minimum duration of 5 days each, including food, hostel and conveyance facilities. It could preferably be conducted at different metropolitan cities of India."-Dhirendra Kumar, Assistant Engineer, H&UD Dept, Govt. of Orissa.

Graded Knowledge Check on AMRUT

On the first day, all the participants had to undertake an introductory version of a knowledge check on AMRUT as part of the first session i.e., the Introductions and Course Overview session. This exercise was undertaken in order to allow them to evaluate themselves before their orientation course began. This iteration had a simple set of 21 introductory multiple choice questions that had only one correct response. This test of their knowledge was neither graded nor discussed with them afterwards in order to motivate them to look for the correct answers and realise their mistakes as they progressed through the three day course.

However, on Day 3 when the course came to an end, the participants were again evaluated through a graded knowledge check. This upgraded version of the knowledge check contained a much tougher set of 15 multiple choice questions which included 5 questions that contained more than one choice as correct responses. These questions were distributed across the following domains of knowledge under AMRUT: the structure or hierarchical arrangement of programme management, the components and thrust areas of the Mission, the funding and financing aspects of the Mission and the process or procedural responsibilities at the various levels of the government. The following graph illustrates the distribution of the questions across these four heads:

Distribution of Questions

- Components
- Funding
- Process
- Structure
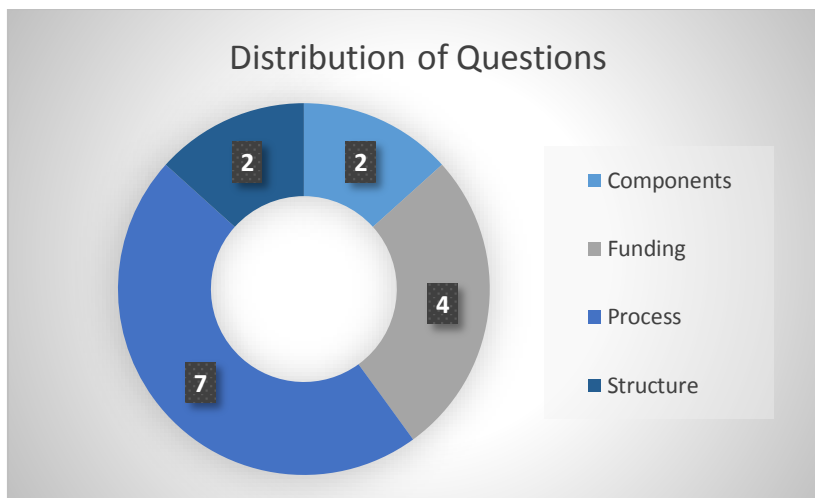
Given the nature of difficulty and complexity of this graded version, the knowledge check exercise was conducted in an open book format where the participants were permitted to refer their Mission Guidelines documents and any other literature provided as part of previous sessions within a prescribed time limit. 37 out of 38 participants undertook the graded knowledge check and after the submission of their responses, the answer key was shared with them and each question and its correct response or responses were discussed in order to ensure their understanding of AMRUT deepened.

The maximum score possible in this graded version of the knowledge check was 24. The first ten multiple choice questions, each having only one correct response carrying 1 mark, came to a total of 10 marks, while the remaining 5 questions, that contained more than one choice as correct responses, carried a total of 14 marks distributed unequally across them. The average score of the 37 participants who took the graded knowledge check is 14.1 out of 24 which equals to an average grade of 59% across the batch. The following illustration shows the range of learner scores and their count and reveals that 11 learners have scored less than 50% (12 marks out of 24) while only 5 people have managed to score 20 marks or more:

Count of Learner scores
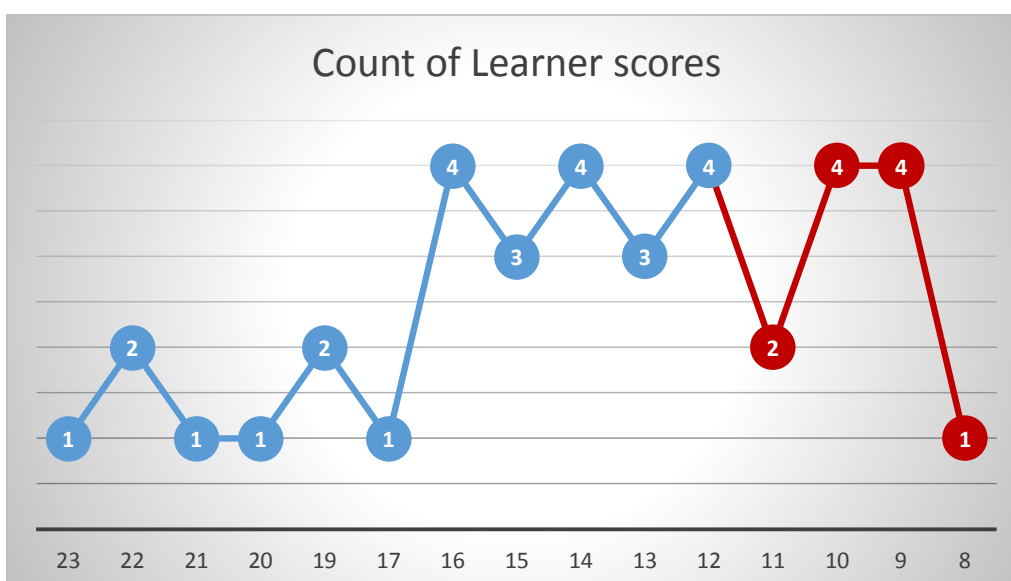
The slightly lower average score of the learners can be explained by two factors. The first could be the failure of 6-7 respondents in marking more than one correct response for questions 11 to 15 which carried the bulk of the marks (14 out of 24). This was despite repeated clarifications verbally and a note on the bottom of each page of the knowledge check questionnaire along with another at the end of each one of those questions. The second reason can be attributed to the relative difficulty of the test itself which is reflected in the following illustration that shows the percentage of correct responses by the learners distributed across the type of questions:
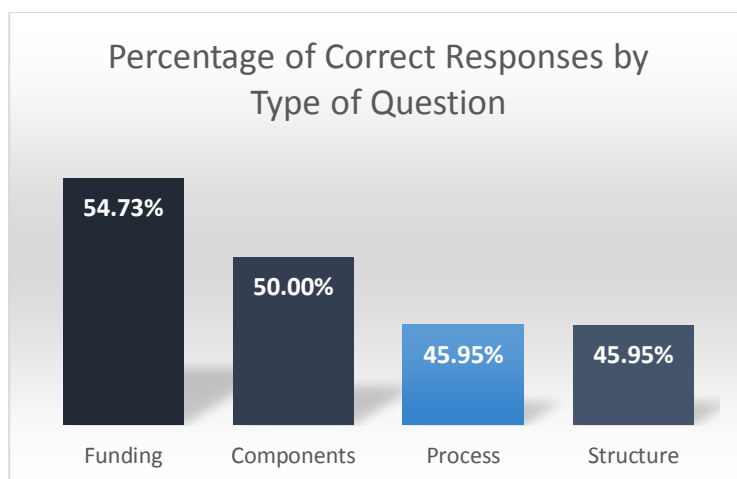
Overall, the graded knowledge check allowed the learners to re-evaluate their understanding of the Mission especially during the discussions that ensued when the answer key was discussed and the reasons behind the right answers were explained. Moreover, the session itself ensured that all the participants became familiar with the Mission Guidelines document, the Mission toolkit and the Odisha SAAP document in the process of finding the correct responses to the test. Lastly, both the knowledge check exercises made the participants understand the importance of evaluating themselves regularly as they undergo a long term capacity building and training initiative under AMRUT. The questionnaire of the graded knowledge check is available at Appendix C for reference.

Way Forward

The Course concluded successfully with most of the participants expressing their satisfaction with the Course and expressing their desire to continue the training programme with IIHS. The Course content would require some reworking and re-orientation based on suggestions of the participants and the intended audience. An initial training needs assessment has been conducted for the participants. In case the Government of Odisha chooses to allocate the further two training programmes for this batch under Individual Capacity Building programme to IIHS, then we can build on it and customize the course offerings accordingly.

Appendix A: Participant List

The nomination list for the Capacity Building Training Engineering and Public Health Department under AMRUT is given below. The names of participants have been highlighted.

S. No	Name of ULB/ Parastatal/ Department	Name of participants	Designation	Mobile No	Group
1	Bhubaneswar	Jagannath Pattnaik	AEE	9437216742	A
2	Berhampur	Sri M. Nageswar Subudhi	AEE	9437140053	A
3	Cuttack	Lalit Mohan Das	Executive Engineer	9437492244	A
4	Rourkela	Manoranjan Dash	Executive Engineer	9437358973	A
5	Bhubaneswar	Dwaipayan Pattnaik	City Engineer	8895351519	A
6	Berhampur	Sri Kedar Chandra Khatua	City Engineer	9938390911	A
7	Bhubaneswar	Bikram KeshariRoutray	Environment Officer	9437138588	A
8	Cuttack	Dr.Pradipta Ku Pradhan	City Health Officer	9437027115	A
9	Berhampur	Dr. SubhaKanta Dash	Health Officer	9861276143	A
10	Bhadrak	Sri Ajaya Kumar Parida	AEE	9437656341	A
11	OWSSB	Sri B.K.Sahoo	PD,PMC, Cuttack	9437213155	A
12	OWSSB	Sri S.S.Samanta	PD,PMC, BBSR	9438479926	A
13	OWSSB	Sri P.K.Sahoo	PE(TC)	9937564544	A
14	OWSSB	Sri B.P.Panda	PE,PMU-II, BBSR	9437241499	A
15	OWSSB	Sri SarbeswarBarik	PE, PMU, Ctc.	9439365365	A
16	OWSSB	Sri E. Sunder Babu	AEE, PMU-II, BBSR	9437505834	A
17	OWSSB	Sri S.S.Nanda	AEE, PMU, Puri	9438320381	A
18	PH-SD-BBSR	B.K. Pradhan	AEE	9178511814	A
19	PH Division-PURI	Er. P.K. Swain	Executive Engineer	9937729506	A
20	SE-Circle-BBSR	Er. C.R. Jena	S.E	9437027106	A
21	OWSSB	Sri A.K.Acharya	APE, PMU-I, BBSR	9437921951	B
22	OWSSB	Sri Sukanta Nayak	APE, PMU-II, BBSR	9437411770	B
23	OWSSB	Smt. Bijaylaxmi Dash	APE, Head Office	8260824025	B
24	Bhubaneswar	Suchismita Soren	Junior Engineer	9439453427	B
25	Bhubaneswar	Punyatoya Badu	Junior Engineer	9437632380	B
26	Berhampur	Smt. Subhashree Sahoo	Junior Engineer	9439027576	B
27	Puri	Pramod Ku. Samal	Junior Engineer	9438419852	B
28	Bhadrak	Sri Lala Debasis Ray	Junior Engineer	9861195227	B
29	Bhubaneswar	Prakash Kumar Pradhan	Asst. Engineer	9438790690	B
30	Bhubaneswar	Srikant Ku. Acharya	Asst. Engineer	9432791411	B
31	Cuttack	Dhirendra ku. Pradhan	Asst. Engineer	9437306860	B
32	Baripada	Jyanendra Rout	Asst. Engineer	9437321763	B
33	Balasore	Biplab Keshari Das	Sanitary Inspector	9853157267	B
34	Cuttack	Sri Bhagaban Lenka	Sanitary Inspector	8895572141	B
35	Puri	Khetramohan Das	Sanitary Inspector	9040741520	B

S. No	Name of ULB/ Parastatal/ Department	Name of participants	Designation	Mobile No	Group
36	PH-SD-BBSR	Ms Ipsita Bisoyee	J.E (Con)	8763641122	B
37	PH-SD-PURI	Sri Kamala Kanta Behera	Junior Engineer	9938177200	B
38	PH-SD-Cuttack	Sri Manoranjan Behera	Junior Engineer	9437314140	B
39	PH-SD-Rourkela	Smt. S.R. Mohanty	Junior Engineer	9438082699	B
40	PH-SD-BBSR	Sekh. Naimul Amin	Asst. Engineer	9861172709	B
41	PH-SD-BBSR	Sri Ajit Kumar Sahoo.	Asst. Engineer	9439178899	B
42	PH-PSD-PURI	Sri Jyotiprakash Mishra,	Asst. Engineer	9438736411	B
43	PH-SD-I-Sambalpur	Sri Sukhamaya Sarkar	Asst. Engineer	9437150926	B
44	PH-SD-Rourkela	Sri Mansing Soren	Asst. Engineer	9437987820	B
45	PH-SD III-Berhampur	Sri D.Prakash	Asst. Engineer	9438039913	B
46	H&UD Department	Sh. Surendra Das, OAS	Additional Secretary	9437287422	A
47	H&UD Department	Smt. Mamita Bisoi	Asst. Section Officer	8895698779	A

The following are participants whose name was not in the above list, but participated in the programme:

1. Ajay Kumar Pradhan
2. Kamala Kumar
3. Suchismita Sahoo
4. S. K. Das
5. Surendra Das

Appendix B: Course Schedule

DAY 1 | 1ST MARCH, 2016			
Time	**Session**	**Theme**	**Facilitator Team**
0930 - 1000 hrs		Registration	
1000 – 1030 hrs	I	Introductions and Course Overview	Sathish Selvakumar
1030 – 1145 hrs	II	Urban Management in India: Overview and Challenges	Sathish Selvakumar
1145 - 1200 hrs		Break	
1200 – 1330 hrs	III	Guest Lecture on Public Health and Engineering	Vikas Desai
1330 – 1430 hrs		Lunch	
1430 –1545 hrs	IV	Group Exercise: City Diagnostics	Geetika Anand, Anushree Deb
1545 – 1600 hrs		Break	
1600 – 1645 hrs	V	Government's Response to Urban Challenges	Geetika Anand
1645 - 1700 hrs	VI	Recap of the day	Sathish Selvakumar
DAY 2 | 2nd MARCH, 2016			
0930 – 1045 hrs	I	Understanding AMRUT: Guidelines, Reforms and Processes	Sathish Selvakumar, Sahil Sasidharan
1045 - 1100 hrs		Break	
1100 – 1140 hrs	II	Overview of Odisha SAAP and cities' SLIPs	Geetika Anand
1140 – 1300 hrs	III	Perspectives on Urban Finance	Sudeshna Mitra, Amir Bazaz
1300 – 1345 hrs		Lunch	
1345 –1400 hrs	IV	Introduction to Field Visit	CDD Representative, Geetika Anand
1400 – 1800 hrs	V	Field Visit to Devanahalli (Septage Management)	CDD Representative, Geetika Anand

DAY 3| 3rd MARCH, 2016			
Time	**Session**	**Theme**	**Facilitator Team**
0930 – 1100 hrs	I	Guest Lecture on Urban Water Supply and Sanitation	MN Thippeswamy
1100 – 1120 hrs	Break		
1120 –1300 hrs	II	Group Exercise: SLIP	Geetika Anand, Anushree Deb
1300 – 1400 hrs	Lunch		
1400 - 1500 hrs	III	Role of Geospatial technology (GIS) in AMRUT	Ravi Chopra
1500 - 1540 hrs	IV	Individual Training Needs Assessment	Sathish Selvakumar
1540 – 1600 hrs	Break		
1600 – 1630 hrs	V	Workshop Feedback	Sahil Sasidharan
1630 - 1700 hrs	VI	Workshop Closing and Next Steps	Sathish Selvakumar

Appendix C: Graded Knowledge Check Questionnaire

1. Apex Committee shall give project by project approval under AMRUT:

   ☐ True

   ☐ False

2. Which one of the following is supported under AMRUT?

   ☐ Urban Roads

   ☐ Ferry Vessels

   ☐ Sanitary Landfills

   ☐ Public Health Centres

3. Request for subsequent instalments of Project funds as part of the Annual Central Assistance (ACA) under AMRUT shall not require which of the following:

   ☐ Score Card

   ☐ Utilisation Certificates

   ☐ Self-evaluation for Reform Implementation

   ☐ Project Funds Request

4. What is the maximum percentage of Annual Central Assistance (CA) under the SAAP earmarked for green spaces and parks?

   ☐ 3.5%

   ☐ 2%

   ☐ 2.5%

   ☐ 1.5%

5. O & M costs of projects have to be calculated as part of the SLIP exercise under AMRUT:

   ☐ True

   ☐ False

6. Incomplete projects that are not part of JnNURM but fall within the focus areas of AMRUT can be included in the SLIPs:

   ☐ True

   ☐ False

7. Which of the following is an admissible component under State A & OE funds?

☐ Staff salaries of executing agency (ULBs)

☐ Purchase of vehicles for capacity building and training organisations

☐ Contractual hiring of professionals and support teams

☐ Furniture for support units

8. Creation of a corporatized model of operations in the water & sewerage sector through formation of WATCOs serves the following objectives:

☐ Rational tariffs

☐ Improved service levels

☐ Cost recovery

☐ All of the above

9. Under AMRUT, the Project Development & Management Consultants (PDMC) shall be appointed by:

☐ State High Powered Steering Committee (SHPSC)

☐ Apex Committee

☐ State Level Technical Committee (SLTC)

☐ District Level Monitoring & Review Committee (DLMRC)

10. Under AMRUT, States have to make a policy to implement the parameters given in National Mission for Sustainable Habitat?

☐ True

☐ False

11. With reference to Odisha SAAP, the following financing approach is followed: (*Tick multiple options if applicable*)

☐ Pubic Private Partnership

☐ Viability Gap Funding

☐ Municipal bonds

☐ None of the above

12. Odisha SAAP, recognizing the need for ULBs to improve their 'own' revenue, has noted some progress in the following: (*Tick multiple options if applicable*)

☐ Property tax act and rules

☐ Restructuring water tariffs

☐ Market borrowing

☐ None of the above

13. Which of the following is included under AMRUT? (*Tick multiple options if applicable*)

☐ Decentralised Wastewater Management

☐ Faecal Sludge Management

☐ Construction of Community Toilets

☐ Septage Management

14. The PDMC shall provide assistance for the following processes under AMRUT (*Tick multiple options if applicable*):

☐ Preparation of SLIPs

☐ Preparation of SAAPs

☐ Preparation of DPRs

☐ Preparation of City-wide Concept Plan

15. Under AMRUT, which of the following processes do city officials have to be directly engaged in? *(Tick multiple options if applicable)*

☐ Preparation of SAAPs

☐ Preparation of SLIPs

☐ Preparation of DPRs

☐ Monitoring of projects

Appendix D: Faculty Profiles

Detailed faculty profiles of the below listed faculty are included in the following pages:

1. Amir Bazaz
2. Anushree Deb
3. Geetika Anand
4. M N Thippeswamy
5. Ravi Chopra
6. Sahil Sashidharan
7. Sathish Selvakumar
8. Sudeshna Mitra
9. Vikas Desai

Amir Bashir Bazaz

Amir started his career in the manufacturing industry, working across functional responsibilities of projects, production planning/control and engineering. He had been the Expert Consultant to the Ministry of Environment & Forests, Government of India for the National Communication to the UNFCCC project.

Amir works on issues at the intersection of economics, climate change mitigation and sustainable development. He has substantial experience of working with various top-down & bottom-up economy- energy-environment modeling frameworks/architectures. His current research interests are low carbon societies/infrastructure, climate change adaptation, urban-climate change linkages. He holds a doctoral degree from IIM Ahmedabad and has a bachelor's degree in Electrical Engineering from Indian Institute of Technology, Roorkee. He has taught courses in Development & Environmental Economics during his academic engagements and also teaches on the topics of Economics of Climate Change, Energy & Environment Policy and Public Systems/Policy.

Anushree Deb

M.A. Habitat Policy & Practice, Tata Institute of Social Sciences; B.A. (Hons) History, Sri Venkateswara College, Delhi University

Anushree has interned at the Centre for Policy Research wherein she undertook a comparative analysis of the 'Gramin Sewa Transport Scheme' scheme as against the existing transport services with respect to transportation planning in Delhi. Her master's dissertation at TISS was on the challenges of preserving built heritage in Mumbai, which analyzed the context for preservation policies within the larger framework of city planning. At IIHS, Anushree works across affordable housing, heritage conservation and water and sanitation. She has co-authored a chapter titled "Urban Housing and Exclusion" published in the India Exclusion Report, 2014. Anushree also creates teaching content for capacity building programmes around heritage planning and affordable housing.

Geetika Anand

Trained as an Urban and Social Planner, Geetika has over eight years of experience in the development sector. She has experience of working with diverse set of agencies including the government, education institutions, NGOs, CBOs, private sector and the community. Geetika has taught as a visiting faculty at School of Planning and Architecture, New Delhi. Her areas of interest include spatial planning, planning legislation, housing, water and sanitation. Her recent assignments include research on urban water and sanitation from the lens of exclusion; studying state of development controls in Delhi; supporting geo-spatial analysis for the state of Odisha and selected cities; making short films on urban water and sanitation; baseline study for a sanitation and livelihood intervention in Katihar, Bihar; policy brief for urban sanitation in Bihar; co-authoring a chapter on urban housing in the India Exclusion Report; a sustainability analysis of the Jawaharlal Nehru National Urban Renewal Mission; and technical support to Bangalore Development Authority for Master Planning.

Other key assignments include research and public consultations for rural habitat policy; preparation of project profiles for rural tourism for the Government of Rajasthan; preparation of city development plans for four cities in Madhya Pradesh; writing sustainable rural habitat case studies for Lok Awaas Yatra organised by Development Alternatives; conducting and documenting 'Community Led Total Sanitation Workshops' for World Bank and UNICEF. At IIHS, Geetika works across the academic, research and practice teams. Geetika holds a degree in B. Planning from SPA and has done her masters in Social Policy and Development from London School of Economics where she was a recipient of the P. J. D. Wiles Scholarship. She teaches on topics related to Planning, Built Form, Infrastructure and Sustainability, Integrated Practica and Integrated Urban Water Management.

M N Thippeswamy

M N Thippeswamy was Chief Engineer, Bangalore Water Supply and Sewerage Board (BWSSB) where he was responsible for identification, planning, and development of various water supply and sewerage schemes in Bangalore. He has been Co-ordinator, City Managers Association of Karnataka as well as an advisor to the Integrated Urban Water Management project of Arghyam Trust, along with being the Chairman of the Technical Committee for the Bangalore World Water Summit held in February 2012. He has consulted with many international and bilateral agencies on issues of water supply and sanitation including JBIC, World Bank, Asian Development Bank, HUDCO and others. He is also an advisor to IIHS.

Ravi Chopra

SMP, IIM Calcutta; MUDP, Maulana Azad National Institute of Technology, Bhopal; B.Arch, Maulana Azad College of Technology, Bhopal; DGI, CDAC Pune; ACSE, IBM ACE.

Ravi has more than 12 years of experience. His professional career include medium to large Enterprise GIS projects implementation comprising of multidisciplinary teams of professionals in engagement with professional, academic, research, business, government, non-profit and multi-lateral funding institutions. He has experience in implementing Enterprise GIS implementation, worked in projects related to City planning and Development, Urban Governance, Land Management, Urban Utilities and Infrastructure, State welfare and Development, Studies and Surveys and Geospatial information management system. Ravi was managing GIS projects and Business Development in Rolta India Ltd, Gurgaon. He has also worked with organizations of repute like RMSI-Noida, Space Application Center-Ranchi (JSAC), Manipal Institute of Technology-Manipal, Institute of Environmental Planning and Technology-Indore.

At IIHS, Ravi is looking after the GIS activities for Practice, Research and Training.His expertise lies in Geospatial Information System.

Sahil Sasidharan

B. Arch, Masters in Planning (Housing)

Sahil works with the Academics & Research team at IIHS on urban issues that focus on contestations around land assembly, scalar transformations in city governance and access to housing for the disadvantaged. Sahil was Planning Officer; Master Plan Unit at Delhi Development Authority where he worked extensively on the city's newly notified Land Policy and assisted in formulating regulations for its operationalization. Additionally, he dealt with various inter-agency queries/interpretations related to the Master Plan of Delhi-2021 and was involved in public participation processes to facilitate modifications to the Plan. He has also worked with Emaar MGF Land Ltd., a real estate major in Gurgaon as part of the Central Design Team responsible for residential and mixed-use developments.

Sathish Selvakumar

Sathish has more than 17 years of experience in the IT, ITES and Urban Capacity Development sectors. As Director, Learning and Organisational Development at 24/7 Inc, he was responsible for the Learning Lifecycle Management of more than 3000 employees working in different centres across the country for more than 25 Clients. As CEO of Spatial Data Pvt Ltd (Spinfo) he was responsible for overall management and performance of the organisation. He led large projects in GIS Software and Database development and worked with Government, Corporate, Academic and NGO sectors. Spinfo also developed products for the home desktop segment.

At IIHS, Sathish is responsible for the Urban Practitioners' Programme. In this capacity, he is working on capacity development programmes in partnership with the Ministry of Housing and Urban Poverty Alleviation (HUPA), State Institute for Urban Development (SIUD) Mysore, UNDP and HUDCO. His expertise lies in Leadership Development, Capacity Development for Working Professionals, and GIS. He is interested in the study of Vedic Sciences and is looking forward to contributing to the development of the Core Curriculum for Urban Practitioners at IIHS.

Sudeshna Mitra

Sudeshna has a PhD in City and Regional Planning, and a Masters in Regional Planning, from Cornell University. She did her Bachelors and Masters in Planning from the School of Planning and Architecture, New Delhi. Sudeshna works on urban and regional economic development, particularly the political economy of land and real estate leveraging in public- private project negotiations. She has researched peri-urban land and livelihood issues, emerging from city level strategies to attract investments. She was previously a consultant with CBRE, and worked on highway projects, airports, industrial parks and Special Economic Zones. She has taught graduate students as Visiting Lecturer at Cornell University. She also taught Land Economics and co- taught studio projects at the School of Planning and Architecture.

Vikas Desai

Dr Vikas Desai is qualified and experienced in Public health, community Nutrition and Reproductive and child health and has 38 years in public health teaching & training to Medical, Health, Nutrition & Public health engineering students, in service candidates and faculty. She has served as Additional Director (FW), Director RCH for 5 year at state level and has actively participated in community level trainings and advocacy process. She is a member of editorial board of Text book on "Environmental Epidemiology" World Health Organization. She has several national and international publications to her credit and has designed and implemented various state level child health programs like Nirogi Bal, MAMTA Abhiyan, MAMTA Taruni, IMNCI, Bal sakha, Integrated Nutrition program. She is a founder secretary of Urban Health Society of India. At Urban Health and Climate Resilence Center (UHCRC) as the Technical Director, she is focussing on various studies on health vulnerability on climate change, heat effect on allcause mortality and development of training manuals for Urban Planners in relation to climate change.