Integrated Urban Water Management Planning and Implementation in Ajmer, Rajasthan

Programme Duration
Overall Duration (12)
- Start Date (04.01.2018) End Date (31.12.2018)

Report Submitted to: India
Water Partnership (IWP)
Secretariat - WAPCOS Ltd.,
76-C, Sector-18, Institutional Area, Gurgaon - 122015 (Haryana)

Submitted By:
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Year: 2018
Background

The increasing variation in the intensity and frequency of rainfall and temperature has impacted the water availability in state of Rajasthan. Whereas due to the lack of management of basic services (water, waste water and solid waste management) has affected the water quality as well as availability of traditional local water sources. Indeed water scarcity might be the one factor that can derail the economic growth and development process of the cities in Rajasthan. Hence, there is need for an integrated and innovative approach that helps in attainment of water security and enhances the efficiency and effectiveness of the present water management system in Indian cities.

ICLEI South Asia in collaboration with India Water Partnership (IWP) initiated “Integrated Urban Water Management Planning and Implementation” project in Ajmer and Kishangarh cities of Rajasthan to achieve sustainable water management approach by promoting integration, coordination, participation and innovation. The project is funded by Global Water partnership and aims to instigate integration in the municipal line of functions through the implementation of IUWM toolkit developed by ICLEI SA.

In the first phase (2017) Kishangrh city was selected to implement the project focused to build the capacity of the Kishangarh Municipal Council (KMC) to undertake water sector reforms. A pilot project on “Door to Door Waste Management” in two more wards of the city was implemented to secure the degrading catchment areas of Hamir Sagar Lake. An IUWM action plan was prepared for the city to undertake IUWM approaches focusing on the conservation of ponds in the city through measures for pollution abatement (for liquid and solid waste) in the city. As part of this initiative, 500 houses in 2 wards of Kishangarh (ward 13& 18) were sensitized on waste segregation to reduce pollution in the natural drain and catchment of the Hamir Sagar Lake. More than 30 Municipal officials and sanitary workers were trained on segregated waste collection and vermi-compost. The project was able to achieve more than 40% segregation and total 120 kg of wet waste was composted. Series of IEC activities and training programs were conducted to generate awareness on waste segregation, WASH, rain water harvesting methods and wet waste composting. Training programs were also conducted for the sanitary workers to build the efficiency of the waste segregation and management. Witnessing the benefits and success of the approach, KMC linked the pilot activities to on-going National Clean India Mission in the city.

In the Phase two (2018) Ajmer city was selected to implement the project. The catchment area of Aana Sagar Lake in Ajmer City was selected to implement the project activities. A pilot intervention was implemented in Ward 60 covering major portion of the catchment area of Anasagar Lake. The project activities were based on the recognition that waste management and urban water sectors are elements of the same Urban Water Loop. The co-operation among these sectors and between stakeholders was identified for efficient water management. A pilot intervention was implemented covering 100 households in ward 60. More than 50 Municipal sanitary staffs, including 15 women’s were trained on solid waste management and techniques for composting kitchen waste. Local residents in the wards were provided with dustbins to segregate waste at household level. A decentralized compost plant was set up to facilitate decentralized composting. Various activities were conducted targeting women; children and local NGO’s to successfully implement the project.

Series of IEC activities were conducted to generate awareness on waste segregation, WASH, rain water harvesting methods and wet waste composting. The project has enabled the Municipal Corporation to adopt a sustainable and holistic waste management approach that indirectly promotes an alternative approach for water management (to improve the quality of water in the natural drains connected to the Lake). It also helped to involve
communities to protect the local water bodies and natural drainage systems in the cities and implement IUWM initiatives economically and efficiently. The pilot intervention helped in building ownership at grass root level and community involvement at all stages. The community and local municipal staff were encouraged to come forward and take part in this system, which they can subsequently operate and maintain. Monitoring and Evaluation framework has also been developed with Municipal council to define the roles and responsibilities to maintain the system.
Executive Summary

Anasagar Lake is a major attraction among the tourists and local residents in the city as well is an important water storage tank. The Lake is situated in the north-west of Ajmer city, was created in the 12th century by building a dam across the river Luni for domestic water supply. The lake’s water spread area varies between 97 and 182 ha, and the depth ranges from 1.9 m to 4.4 m. Its catchment covers 70.6 sq.km. Nearly 30% of the population of the city resides within the catchment area of the lake.

Under the project on Integrated Urban Water Management Planning and Implementation, ICLEI South Asia in collaboration with India Water Partnership (IWP) initiated activities in Ajmer city to implement ICLEI’s Rapid IUWM toolkit. A pilot intervention was implemented in one of the ward (ward 60) in the catchment areas of the Lake Anasagar to showcase adaptability of IUWM approaches. In ward 60, 100 HH were facilitated with regular solid waste collection and management system. More than 400 local residents including women were trained on decentralized management of kitchen waste. Almost 150 school children were covered under various IEC activities conducted in the ward. One of the objectives of the project was to build the capacity of Local authorities; hence various training programs were conducted for municipal officials and sanitary staff in the city. More than 30 municipal officials were trained on solid waste management and IUWM toolkit whereas more than 50 municipal sanitary staffs were trained on segregated waste collection and composting. The project has been able to achieve more than 60% segregation as of now and total 150 kg/month of wet waste is being collected and composted. The pilot project highlighted how efficient door to door waste segregation and management can revive the natural drainage system and improve natural resource management. Municipal Corporation Ajmer is facilitated with a decentralized compost plant to manage the collected kitchen waste more efficiently.

The adoption of an IUWM-based approach helped the city to work towards Sustainable Development Goals: good health and wellbeing (Goal 3), for clean water and sanitation (Goal 6) and for sustainable cities and communities (Goal 11).
Acknowledgement

This Report is an output of collaboration between India Water Partnership and ICLEI-South Asia. This project would have not been successfully implemented without the support and guidance of Ajmer Municipal Corporation.

The aim of the project was to build the capacity of the Local authority and community to undertake water reform to conserve local water bodies/ponds in the city through measures for pollution abatement (for liquid and solid waste). The project was supported by Global Water Partnership under core activities Goal 1 – Catalyse change in policy and practice.

We gratefully acknowledge the support of Mr Himanshu Gupta (IAS) Commissioner Ajmer Municipal Corporation, Ms. Jyoti Kakwani, Deputy Commissioner, AMC, Mr. Arvind Yadav, Executive Engineer Ajmer Municipal Corporation and Mr Chandresh Sankhla, Councillor Ward-60. We especially like to thank the team from PRIYA Mr Ramesh Yadawar, Senior Programme officer and Ms. Kirti Tak, Senior Programme Officer for their continuous support to conduct awareness programs.

The project would have not been possible without the generous support of all the concerned departments from the state level and city level as well as the local residents within ward 60. We extend our sincere gratitude towards all those who were part of the implementation of the project and preparation of the project report.

Emani Kumar
Deputy Secretary General, ICLEI &
Executive Director, ICLEI South Asia
ICLEI - Local Governments for Sustainability - South Asia
1.1 Details of Training Programs/Workshops

Capacity building and awareness generation was the main component of the Project. During the implementation of the project, 3 capacity building workshops and more than 4 awareness programs were conducted targeting specific stakeholders.

1. Municipal officials and staff (including both Administrative staff and political member of the council),
2. Local residents especially women',
3. Children

1.1.1 Stakeholder Workshop to Implement Rapid IUWM process

The first stakeholder consultation and training workshop was organised on 2nd May 2018 in Ajmer city. The workshop was attended by the Deputy Commissioner Ajmer Municipal Corporation (AMC), Executive Engineer AMC, Assistant Engineer (Environment and Solid Waste) AMC, Sanitary Inspector (Ward 60), Ward Councillor (Ward 60). More than 15 participants mostly women from local institutes, NGO's and residents from Ward 60 also attended the workshop.

The objective of this workshop was to implement IUWM tools to assess the level of integration among various sectors and departments, to formulate an IUWM vision for the city, and to develop integration targets to achieve the vision. Water cycle mapping tool was implemented to inform local stakeholders about water cycle loop and to mark the potential sites for pilot project demonstration. The implementation of IUWM tools will ensure promotion of IUWM approaches and stakeholder involvement in planning, designing and implementation of integrated strategies.

Outcome:

i. Key issues in various sectors identified by the stakeholders during the workshop were:

- Dependence of the city on a single water source which is located 200 km. from the city.
- Pollution of the local water resources due to discharge of waste water into water bodies. The current STP is located at the banks of Anasagar Lake. Also there are many open drains in the city discharging waste water in the lake.
- The city has already taken initiatives under the SBM on door to door waste collection and seeking advice to implement source segregation and feasibility to construct compost facilities.
- Immense pressure on the water supply system as Ajmer is a tourist city and a religious place for pilgrims.
- Lack of awareness among local residents and Municipal sanitary team.
- IEC Activities and Training program are required on solid waste management (SWM) and WASH.
- Lack of institutional integration in the city.
ii. Existing level of Integration:

<table>
<thead>
<tr>
<th>Table 1: Ranking for the first Integration Assessment for Ajmer City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Score</td>
</tr>
<tr>
<td>Existing status of integration in the city (Excellent, Good, Average, Poor)</td>
</tr>
<tr>
<td>Focus sector (based on First Integration Assessment Matrix)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Status/Rank</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 410</td>
<td>Excellent</td>
<td>• Good level of integration in place at most levels, city needs to continue existing measures</td>
</tr>
<tr>
<td>330 to 410</td>
<td>Good</td>
<td>• Good level of integration but certain sectors might require attention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Additional measures towards integration can improve situation</td>
</tr>
<tr>
<td>165 to 330</td>
<td>Average</td>
<td>• Some level of integration across sectors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Measures towards integration should be taken to solve the water related issues being faced</td>
</tr>
<tr>
<td>80 to 165</td>
<td>Poor</td>
<td>• Hardly any integration and there is a need for immediate measures towards integration across sectors</td>
</tr>
<tr>
<td>Below 80</td>
<td>Critical</td>
<td>• No integration across sectors and immediate measures towards integration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• City needs to rethink the planning and management concepts for redesigning the urban water cycle</td>
</tr>
</tbody>
</table>

iii. Vision for Ajmer city:

“Promotion of traditional knowledge on rain water harvesting and revival of local water bodies for recreational purposes by involvement of communities and local experts

iv. Mapping of the areas within ward 60:

The water logging areas within the ward 60 were identified by the stakeholders in consultation with the local ward councillor and local residents. Potential sites for the pilot project implementation were also selected and mapped.

Figure 1 Waterlogging areas in Ward 60
1.1.2 Capacity Building and Training Program on Solid Waste Management

ICLEI SA with the support of Municipal Corporation Ajmer organized a training program on solid waste management at Municipal Corporation Meeting Hall, Ajmer City on 28th August 2018. The aim was to build the capacity of municipal sanitary workers and teams working on door to door solid waste collection under Swatch Bharat Mission in Ajmer city. The training program was chaired by City Sanitary Officer, Ajmer Municipal Corporation (AMC), Mr Chandresh Sankhla, Councillor Ward-60 also District head for Cleanliness in Ajmer and Dr. Veena Khanduri, Executive Secretary, India Water Partnership (IWP).

More than 40 Municipal staff was trained on solid waste management this includes municipal sanitary staff of AMC, door to door solid waste management teams in the city, Sanitary Inspectors Municipal Corporation Ajmer and local residents.

Outcome:

i. Trained team for the implementation of the pilot project

Information about the current scenario of solid waste management in country and informed about Municipal Solid Waste Management Rules 2016 in India. During the training program a discussion on the importance of baseline assessment of data and Principals of Waste Management was conducted. The importance of the source segregation and benefits of segregating the wet waste and dry waste were shared in details with the participants. Mr Ritu also trained the sanitary staff and participants on methods and techniques to practice waste characterization. After the training program, a team was constituted to implement the pilot project in the selected area within ward 60.

ii. Awareness and peer learning for the municipal staff

Training was given to 40 municipal staff working on National Clean India Mission (Swatch Bharat Mission) on waste segregation, collection and compost methods. A session was conducted with the participants to discuss issues with current solid waste management system in practice and on ground scenario. Discussions were also held to understand the level of awareness among local residents and issues faced by sanitary workers in segregated waste collection. Some of the participants from the door to door waste collection teams informed about the issues with collection vehicle timings need for modifications in the collection vehicle. Municipal Corporation is using tippers that are not equipped with waste segregation compartments. Municipal workers also informed about issues related to lack of awareness among local residents on solid waste segregation and limited support from the administration. The helpers from the door to door waste collection teams shared the need for personal protective gears like gloves and masks etc.

1.1.3 Training program for municipal team working on pilot project

A hands-on training program was organised in November for the municipal team implementing the pilot project. Ajmer Municipal Corporation was facilitated with a decentralised compost centre in ward 60 and a team of 5 members along with ward councillor were given hand on training on composting method and ways to segregate collected waste. A monitoring framework was also shared with the municipality to make initiatives more sustainable. An awareness program was also conducted alongside the
training program for local residents. Information on compost and hands on training was given to the interested residents of the area.

**Outcome:**

- Awareness and capacity building of local residents
- Capacity building of local authorities
- A sustainable system at place
- A success story from Ajmer city to protect catchment of local water bodies

### 1.1.4 Awareness and IEC programs

Various stakeholder consultations and meetings were conducted to introduce the project to the local residence. Emphases was given on water cycle and linkages among various sectors

#### i. Awareness and IEC among local residents of ward 60 in June, 2018

- **Pamphlet and a Success Story:** A pamphlet is developed containing general information on solid waste segregation method. This pamphlet was distributed among all the stakeholders and local residents. Success story of the previous project implemented in Kishangarh is also shared with the Ajmer Municipal Corporation (AMC), local staff and resident in Ajmer. Adopt IUWM poster developed by ICLEI South Asia was also displayed during the meetings.

- **Stakeholder Consultations and Meetings:** Stakeholder consultations were conducted with the local residents in the Shivasgar colony and RPSC Colony. Information on project and activities were introduced. Discussions were held on water cycle and related issues in ward. During the discussion the stakeholders acknowledged their problems related to water logging, clogged drains, foul smell and issues related to stray animals. They also gave feedback of the present waste collection system.

- **FGD’s:** Discussion with local women’s was also conducted to understand the water and solid waste sector related issues. In the discussion they were informed about the participation to segregate waste and collection. They were informed in detail about the waste segregation process. Most of the women complained about the timings of the waste collection vehicle of AMC.

#### ii. IEC Activities with the School Children in Ward 60 in July

An inter school drawing and painting competition was organised on 28th July 2018 in the Tikam Chand Government Senior Secondary School located in ward 60. Around 80 students from 5 schools located within the ward 60 participated in the competition. The competition was organised with the students of 9th standard on the theme of water conservation and clean environment.
iii. Discussion and Short Quiz on Cleanliness and Urban Water Cycle in July

A short quiz was also conducted with the students. They were asked questions related to the categorization of dry and wet waste about which they answered well. They were informed about the importance of local water bodies and the impact of solid waste management on these water bodies. Importance of the cloth bags over the plastic bags were also shared with them. In the discussion some of the students also gave suggestions regarding improving the solid waste management and improving the conditions of local water bodies and natural drains.

iv. IEC Activities conducted at City Level in three Schools

ICLEI South Asia in collaboration with the Municipal Corporation and Participatory Research in Asia (PRIA) organised IEC activities in three schools. These IEC activities included organising drawing and painting competition between students of class 10th to 12th and to promote the waste segregation in city a video clip from the Swachh Bharat Mission portal was shown to the students and later questions were asked to them. A rally was also organised in these schools in their nearby areas.
v. **Animated Movie on Solid Waste Management**

An animated clip of 10 minutes was shown to the students in a classroom through projector to provide information on the categories of waste with their detailed sub categories, use of dustbins and its importance. Emphasis was given on the importance of the segregation of the waste and its safe disposal after segregated collection. An overview of the dumping sites in different cities of India was also shown. Cleanliness and use of dustbins was very well taught through the animated clip.

vi. **A City Rally-“SAVE THE ENVIRONMENT”**

A rally was organised in Ajmer City and around 60 students and teachers of the respective classes participated in the rally. The students were provided with the flyers on water conservation, segregation of waste, use of dustbins etc. Some of the drawings prepared by the students were also used in the rally.

**Outcome**

- Capacity building of more than 400 residents including 60 women under the project
- Capacity building of more than 150 students within the city (including ward 60 students those participated in competitions and quiz)
- Community engagement to make the program more sustainable
- Awareness on water and its allied sectors among the local residents.
- Efforts made to spread the message at city level through the rallies conducted.
- Municipal Staff and the local residents got trained on waste segregation.
1.2 Narrative Reporting on Results

Ajmer is Rajasthan's 5th largest city with the population of about 5, 51,360 according to the 2011 census. It is important to note that Ajmer is an important tourist destination and one of the most important pilgrimage centres for different religions. The city receives 15,000 pilgrims every day on an average and about six lakh devotees including celebrities attend the yearly Urs here. During the summers the city faces sever water availability.

Ajmer is dependent on surface water for its water demands. At present, Ajmer town is dependent on Bisalpur Dam, which is situated about 115 Km away from the city. Piped water supply in Ajmer started in 1884 from Anasagar reservoir to the then population of 50,000. In 1892, Foysagar Lake was constructed to cater the increased population of the town. Historically, the city is understood to have an efficient system of rain water collection through interlinked lakes. Over the time this interlinked system was captured by illegal encroachment of land and unplanned residential growth which did not allow the rainwater to properly accumulate in the previously designed reservoir. The city is fighting hard to provide the basic quality of living standards. Waste water and solid waste management is one of them. Lakes and natural drains are logged with solid waste and have become garbage dumps. During monsoons Ajmer city is often flooded due to improper outlets for water that accumulates. The drains are often clogged with solid waste which blocks the easy flow of rain water.

1.2.1 Implementation of IUWM toolkit

Various tools from the ICLEI SA's IUWM Toolkit were implemented in the city through a stakeholder consultation workshop. The workshops were helpful to assess the present situation of the city in terms of service sectors and to understand the level of integration among various departments and actors in the city. Through the implementation of the first integration matrix tool, it was analysed that the integration among water sectors and its allied sectors is hardly present in the current institutional framework and most of the departments work in silos. Main sectors selected after the integration matrix and discussions were storm water drainage and solid waste management.

1.2.2 Vision for the city

A vision was formulated based on the prioritised issues identified by the stakeholders.*Promotion of traditional knowledge on rain water harvesting and revival of local water bodies for recreational purposes by involvement of communities and local experts *

1.2.3 Water cycle mapping

A water cycle mapping was conducted to identify areas with issues and select the most potential site for the implementation of the project. Some of the major drains were mapped:

- Bandi River
- Kazi ka Nalla
- Arihant colony drain
- Anted Chatri Yojna Drain
- Vaishali Diversion Channel
- Anasagar Escape channel
- Bh rampuri Drain
- Inderkot Madargate Drain

It was analyses that the Anasagar Lake is the main water body of Ajmer city and waste water of the city enters into it through several waste water drains coming from the nearby area. Along with proper Solid Waste Management, drainage facilities are urgently required.
Through the discussion with the stakeholders a site was selected which is located in the eastern part of the ward 60, and covers three colonies covering around 160 households. These localities are RPSC Colony, Shivasagar Colony and Choudhary Colony. The population of this area is around 700 people.

**Major issues identified in these colonies are as under**

- Water logging in monsoon - The colony is located near a large drain connected to the AnaSagar Lake in the city. This area faces issues related to the solid waste. Even after the door to door waste collection by AMC, the local drains are still choked due to plastic and waste.
- Solid waste collection and management – The solid waste collection efficiency in the ward is very low. The project area lies in zone 2 of ward 60. There are total three zones in ward 60. Each zone has one waste collection vehicle. There are only two sanitary staffs working in each zone consisting of one sanitary labour and a driver. The waste dumping depot (Mittal Depot) is around 1 km from the site. The team usually takes two trips to collect the waste daily. Transportation of solid waste is carried out partially by AMC and partially by private contractors. AMC is responsible for transportation of about 30-35% of solid waste generated, while the private contractors are responsible for the rest 65-70% waste. The solid waste is collected and then transported to nearby depots. From the depots the waste is loaded in trucks and tractors and then transported to the dumping ground which is located at makhpurana. The site is not provided with any fencing facility.
- Lack of interaction and communication: There is no interaction and coordination between the sanitary staff and local residence resulting in friction between the local people and AMC. Timings of the collection vehicle and practice to feed food to stray animals and religious beliefs of the local residents are some of other factors affecting the efficiency of the system.
- Capacity building and awareness – Lack of awareness on water cycle, waste management and the linkages among various sectors is lacking, leading to an unresponsive behaviour and lack accountability among the local residents.

**1.2.4 Prioritised strategies:**
A set of strategies were developed as a pilot project to be implemented at the project site (including 100 HH)

- Solid waste segregation at source and decentralised management of collected wet waste to protect the local drains
- Channelization of natural drains and reviving the linkages
- Reviving traditional rain water harvesting structures

A discussion with the municipal authorities and local councillors were held to select one strategy to implement as a pilot intervention in the city. Based on the discussion and as per the scope of the study intervention on solid waste segregation at source and decentralised management of collected wet waste to protect the local drains was selected.

**1.2.5 Pilot Project Implementation**
100 households were targeted from three different colonies in ward 60. The households from these colonies were targeted with focus group discussions and other capacity building activities. They were also provided with the pamphlets having information on segregation of the waste. The waste collection vehicle was also provided with information to collect the segregated waste. A waste segregation sticker was also stuck on the vehicle to spread the message of segregation. The sanitary team working in that area was also trained to collect
the segregated waste and to convince the people through behavioural approaches. An effort was also done towards increasing the door to door waste collection as due to the vehicle routing and dead ends of the routes, many people were not able to participate in the daily waste collection. Vehicle routing and motivating people worked and the waste which was earlier going in the drains was collected by the vehicle directly. Later two compost beds were also installed and the segregated waste was transferred to those beds. Due to this initiative the stray animals also stopped coming in the colonies and the problem of choking of drains also got stopped.

1.2.5.1 Capacity building and awareness program to implement the pilot project

Various activities were conducted to build the capacity and generate awareness among the municipal staff as well as the local residents in ward 60 targeting specific stakeholders like local authorities specifically on ground staff working in solid waste management sector, local resident’s specially women and children. Training programs focused on integrated urban water management principals and strategies to close water cycle loop, interlink-ages among various sectors (water and allied sectors) solid waste segregation and management techniques.

- Trained more than 30 municipal staff and 25 stakeholders on solid waste management and IUWM toolkit.
- Hands on training for 10 sanitary staff and local residents on composting
- Capacity building of more than 400 local residents including women
- IEC activities with more than 150 students in the city.
- Awareness programs for 100 HH in the ward on composting
- Facilitated municipal team working on door to door solid waste collection with dustbins for collection of waste along with modified collection vehicle

1.2.5.2 Decentralised Compost Facility

A waste audit was conducted in the month of September in the selected colony (100 HH). The waste collected from the selected 100 households was monitored and assessment for a week. The details of the status of solid waste in selected colony (100 HH) areas under:

Details of the component inside the waste (per day basis):

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Component</th>
<th>Details</th>
<th>Approx. Weight (In kgs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wet Waste</td>
<td>Includes green waste coming from kitchen, fodder of animals etc.</td>
<td>70- 80</td>
</tr>
<tr>
<td>2</td>
<td>Thick Carton (Mb)</td>
<td>Thick carton boxes used for packaging</td>
<td>3-4</td>
</tr>
<tr>
<td>3</td>
<td>Thin (Mb)</td>
<td>Paper, thin boxes used in packaging gifts , sweets etc. , paper</td>
<td>6-7</td>
</tr>
<tr>
<td>4</td>
<td>Plastic (Mix)</td>
<td>Plastic mineral bottles. Shampoo bottles, milk polythens, plastic toys, plastic items etc.</td>
<td>6 kg</td>
</tr>
<tr>
<td>5</td>
<td>Diapers</td>
<td>Includes the used diapers</td>
<td>1.5 – 2 kgs</td>
</tr>
</tbody>
</table>
Based on the waste audit conducted in the project area, Municipal Corporation Ajmer was facilities with two compost beds in ward 60 to manage solid waste in 100 households. This compost facility have two (HDPE) Compost beds , UPVC Standing Handle for Compost Bed (02 Ft. each Handle) 16 Pcs. in each Bed, Green Shade Net for Outer Compost Bed Covering (10x6.5ft.) 75% G/G with Switching, UPVC Pipe for Net Cover House for shade of Compost Bed and a Pipe Length 10 Ft. (06 Pipes in each Bed). The compost beds have a capacity to manage 1000 kg of wet waste.

**1.2.5.3 Monitoring Arrangements**

The pilot project is managed by the Ajmer Municipal Corporation. The project activities related to collection of segregated solid waste at the household level and composting of wet waste are monitored by trained municipal staff. Local residents have also shown interest in monitoring the implemented project. Secondary level of segregation is conducted at the compost site. The first set of compost is under production and the sample will be tested in the laboratory by the municipality. The project will be upscaled to the whole ward by AMC.
1.2.6 State level Meeting

A State level meeting was on “Integrated Urban Water Management Planning and Implementation in Ajmer City” by ICLEI South Asia at Directorate of Local Bodies Jaipur on 14th February 2019 at Directorate of Local Bodies (DLB) conference hall, Jaipur.

It was chaired by Chief Engineer Mr. Bhupendra Mathur and was attended by Mr. Shivraj Singh Poonia, Superintendent Engineer; Mr. O P Kala, Executive Engineer; Mr. Satish Gupta, Executive Engineer; Mr. Lokesh Saini, Executive Engineer Mr. Ravi Shankar, Executive Engineer, Mr. Vishvas Singhal, Assistant Engineer; Dr. Anurag Sharma, Team Leader PIU SBM; Mr. Ajit Singh, Waste Management Expert PIU SBM and Mr. Prateek Kumawat, Assistant Engineer Ajmer Municipal Corporation.

The aim of this meeting was to update the state level officials/engineers about the project activities conducted in Ajmer city. Officials were informed about the ground level implementation done under project in ward 60 in Ajmer. The project activities were discussed in details which included training program organised for the sanitary workers, IEC and awareness activities conducted in Ward 60 and in the city. A detailed discussion was carried on the pilot implementation conducted in ward 60 of Ajmer city.

Officials were informed in detail about the initiative taken for the 100 households related to waste segregation. The impact and the present scenario of the pilot implementation were discussed with the officials and the status of the waste segregation was also discussed. The state officials were pleased to know that activities conducted by ICLEI South Asia were able to bring behavioural changes in the public with regards to increasing waste collection and segregation and improving overall environment to project the local water bodies.

The challenges faced during the pilot implementation were also shared and a discussion was held and the Chief Engineer focussed towards bringing new approaches towards the waste segregation. Officials discussed the project outcomes and challenges with the city engineer from Ajmer Municipal Corporation and took feedback over replicating the pilots on waste segregation in other wards.

A discussion was also held to further discuss the upcoming activities under the project. The DLB officials suggested that if the training program is conducted on water then PHE officials must be involved.

At the end officials from DLB thanked ICLEI South Asia for the project done in Ajmer and ensured their support. Need to display best practices conducted under the project was also highlighted.
Minutes of the Meeting: State Level Meeting under the project on Integrated Urban Water Management Planning and Implementation in Ajmer

Directorate of Local Bodies, Jaipur
14th February, 2019

Attendees –

- Mr. Bhupendra Mathur, Chief Engineer, Directorate of Local Bodies (DLB)
- Mr. Shivraj Singh Poonia, Superintendent Engineer, Directorate of Local Bodies (DLB)
- Mr. O P Kala, Executive Engineer, Directorate of Local Bodies (DLB)
- Mr. Satish Gupta, Executive Engineer, Directorate of Local Bodies (DLB)
- Mr. Lokesh Saini, Executive Engineer
- Mr. Ravi Shankar, Executive Engineer
- Mr. Vishvas Singhal, Assistant Engineer
- Dr. Anurag Sharma, Team Leader, PIU SBM
- Mr. Ajit Singh, Waste Management Expert, PIU SBM
- Mr. Prateek Kumawat, Assistant Engineer Ajmer Municipal Corporation
- Geeta Sandal, ICLEI South Asia
- Rahul Rathi, ICLEI South Asia

Key Discussion points

- Presentation on project activities
• The impact and the current scenario of the pilot implementation were discussed
• The challenges faced during the pilot implementation were shared with the officers.
• Mr. Bhupendra Mathur, updated on the status of the waste segregation in different cities
• He mentioned that the project activities conducted under the project must be replicated at a bigger scale to showcase more impact
• The Chief Engineer focussed towards bringing new approaches towards the waste segregation.
• Officials discussed the project outcomes and challenges with the city engineer from Ajmer Municipal Corporation and took feedback over replicating the pilots on waste segregation in other wards.
• Mr. Bhupendra Mathur thanked ICLEI South Asia for the project done in Ajmer. This was followed with the further discussion on the upcoming activities.
• Suggestions on training program for year 3 activities were given by DLB office. Major focus was on Solid waste management supporting activities conducted under Swatch Bharat Mission
• Mr. O P Kala, Executive Engineer suggested that to bring behavioural changes in the public with regards to increasing waste collection and segregation is very important and activities must be conducted at regional level.
• Mr. Ajit Singh also suggested that activities conducted under the project should be showcased as best practices for SBM.
• The meeting ended with a vote of thanks by team ICLEI South Asia.

1.3 Outcomes of the Pilot Project

• More than 70% of segregated waste is collected
• Increase in the door to door collection of waste,
• Reduced the public littering by almost 60% (especially in drains and the open plots).
• Provided separate collection of acid bottles and bio medical waste to improve health hazards
• A decentralized compost facility in the ward.
• People participation to monitor waste management
• A functional and regular SWM model
  U800

1.4 Outcomes of the Project

• An Action Plan for prioritised sectors (storm water drainage and solid waste management)
• Trained more than 30 municipal staff and 25 stakeholders on solid waste management and IUWM toolkit.
• **Hands on training for 10 sanitary staff** and local residents on composting

• **Capacity building** of more than 400 local residents including women

• **IEC activities** with more than 150 students in the city. Awareness programs for 100 HH in the ward on composting

• Facilitated municipal team working on door to door solid waste collection with dustbins for collection of waste along with modified collection vehicle

### 1.5 Conclusion and Recommendation

The goal of the project was to improve the capacity of the local urban bodies and stakeholders to undertaken water sectors reforms and consider integrated urban water management principles and approaches planning water management projects. The project’s timing and impact has adequately changed lives and improved wellbeing of many local stakeholder especially urban poor in the selected ward and children, and communities. This project was “just in time” as Ajmer is a Smart City and currently the city is in motion to undertake innovative measures to overcome common issues. This project has demonstrated alternative and low cost technology options for improving service delivery, especially to the urban poor through the pilot project. It supports the Sustainable Development Goals 6 (Clean Water and Sanitation) and SDG11 (Sustainable Cities). It has successfully aligned its activities and outputs to the on-going national schemes on Swath Bharat Mission.

A list of recommendations has been proposed for improvement of future interventions/activities for the city. These are mentioned below:

• The project has provided small scale benefits through the pilot project, and these needs to be upscaled through a wide approach to actually impact the water quality in the lake.

• Implementing the IUWM Action Plan must be in the prioritised agenda.

• The detailed monitoring framework prepared under the project for maintenance of pilot projects can be replicated for other aspects of city’s activities.

• To ensure sustainability of project interventions, linking them with government schemes can play an important role. The solid waste tender must include source segregation in the city.

• Capacity building is an on-going process that does not stop directly after an intervention (or capacity building activity). Therefore, measuring results must be followed by the city authority. Only this enables to claim about improvements, especially when these have to do with community lead management systems and behavioural change.

• The Trust build during the implementation of pilot intervention among the local residents must be preserve by the Municipality.