

INTEGRATED RURAL URBAN WATER MANAGEMENT FOR CLIMATE BASED ADAPTATIONS IN INDIAN CITIES (IAdapt)

Training Programme on Solid Waste Management and Rain Water Harvesting Techniques

27th September 2018, Solapur

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Introduction

ICLEI South Asia organized two training workshops on Solid Waste Management and Rain Water Harvesting Techniques in the Ekrukhi micro catchment, Solapur on 27th September 2018.

The first training workshop was conducted in Solapur city with the support of Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) Department Solapur Municipal Corporation. The workshop was chaired by Mr Trimbak Dhengale-Patil, Deputy Commissioner, SMC and Ms Vishali Awad, Technical Expert, NULM, SMC. The technical training was conducted by Mr Mahesh Sudhakar Siddheshwar, President, Appropriate Rural Technology Institute (ARTI), Pune to build capacity of the local women from economically weaker section of the society and Self Help Groups member under NULM in SMC. The training was attended by more than 70 women from local self- help groups, municipal sanitary workers and officials working under NULM department, SMC along with ICLEI SA Team.

Inaugural Session and Welcome Address

Ms Geeta Sandal from ICLEI South Asia welcomed the participants with a brief background of the project and updates on the project activities. The meeting commenced with a welcome to Mr Trimbak Dhengale Patil, Deputy Commissioner, Solapur Municipal Corporation Ms Vishali Awad, Technical Expert, NULM, SMC and Mr Mahesh Sudhakar Siddheshwar, President, Appropriate Rural Technology Institute (ARTI) by the team from ICLEI SA.

Mr Trimbak Dhengale-Patil addressed the participants and informed them about Swachh Bharat Mission motive and vision. He shared his view on present issues related to solid waste management and the need for awareness programs and capacity building activities. He encouraged women's to participate in awareness programs and activities as they are the key actors to build informative and aware society. He also shared his thoughts on importance of water management and interdependence of water and solid waste sectors. He thanked ICLEISA for its initiatives and ensured his support to the project.

Ms Vishali Awad, Technical Expert, NULM, SMC thanked ICLEI SA for the initiating the training programs and informed the gathering about major on-going and upcoming initiatives of SMC under various schemes and expected tangible solutions from the project towards water supply and water resource management for Solapur. She thanked all the participants and ICLEI SA and Mr. Mr Mahesh Sudhakar Siddheshwar, ARTI.



Technical Session on Solid Waste Management

Mr Mahesh Sudhakar Siddheshwar started the session by introducing Appropriate Rural Technology Institute (ARTI), its vision and achievements. He informed about the technologies developed by ARTI for household and community sized Biogas, Composting and Low cost Water Tank for RWH. He also detailed out the concept and basic information on composting and biogas. He explained about Production of root mat, Low cost greenhouse, Bamboo treatment – Impregnation and Bamboo Pavilions, Low Cost Water Tank use of Bamboo for Solar Dryer. He also shared a case study about Tissue culture to Farmers field via plant nursery.

He then explained the methods and techniques to generate and store Biogas and uses as the energy source. He explained the Bio-methanation process and Biogas Constituents. He also suggested that on the basis of the gas holder the biogas plants are classified mainly into two groups – Fixed dome and floating drum type. He then explained the process and components used in both the plants. He also showcased a sample model of the floating drum type system.



He also explained how food waste & vegetable cutting pilings collection can be used to generate biogas at individual and community level. He explained the related benefits of the same at household level in terms of health, economy etc. Mr Siddheshwar explained the construction of Ferrocement Deenbandu Biogas System and provided detailed methodology to construct a Community Biogas System. He then presented few case studies from

1. Stara village, where Biogas system with pre-digester with capacity of 5m³ was constructed.
2. KRIBCO, Noida, New Delhi -Biogas system 6m³with feeding food waste Biogas system 10m³ ,
3. Sao Resort, Mulshi, Dist.Pune Pre-digester system 6m³, Crusher (20 to 25 kg capacity / hour)
4. Prathamik Ashram School, Khedked, Tal.Igatpuri, Dist.Nashik - Biogas system (24 m³).

He also explained the Charring of Agrowaste and Charcoal Briquetting and methods for Vermicompost Bin by using bamboo by showcased a model of the same during the workshop. He explained the process and also shared the financial support by Indian government under various schemes to undertake such initiatives.

Conclusion

The Training program received positive response from the participants from Solapur Municipal Corporation. Ms Vishali Awad. Ms Geeta Sandal, ICLEI SA thanked Mr Trimbak Dhengale Patil, Deputy Commissioner, Solapur Municipal Corporation and Ms Vishali Awad, Technical Expert, NULM, SMC for providing support in organising the training program. She also thanked Mr Mahesh Sudhakar Siddheshwar, President, Appropriate Rural Technology Institute (ARTI) and his team for conducting the training and providing information on low cost technologies that useful and easy to implement and also easy to maintain. The training Program was concluded by thanking all the participants and SMC, she also informed about the future activities to be conducted under the project.

Technical Session on Solid Waste Management

The second training workshop was conducted in Haglur Village and was attended by 50 women's from three villages (Ekrukh, Haglur and Hippragh). The technical training was conducted by Mr Mahesh Sudhakar Siddheshwar, President, Appropriate Rural Technology Institute (ARTI), Pune and aimed at building awareness and capacity of the rural women and Self Help Groups member of Mahila Bachat Gat.

Mr Mahesh Sudhakar Siddheshwar started the session by introducing Appropriate Rural Technology Institute (ARTI). He detailed out the concept and basic information need on composting and biogas.



He also mentioned how these technologies can help women's to save money and also use the kitchen waste in a more productive way. He showcased different low cost models and techniques to construct a low cost individual level bio gas plant. He also explained the process to manage wet waste from the kitchen for composting. He also shared a case study on vermin composting from a village in Pune district. He then explained the methods and techniques to generate and store Biogas and uses as the energy source. He explained the Bio-methenation process and Biogas Constituents. He then explained the process and components used in both the plants. He also showcased a sample model of the floating drum type system.

He also answered few of queries from the women like cost of the small bio gas plant and potable compost beds. He informed under NAREGA program, rural areas can construct a compost plants only if the construction will provide employment to the local labours or residents. He also mentioned that these low cost techniques can also be constructed at individual level and the cost is also not very high. Women's from SHG Haglur village informed that they are implementing such activities by using the Mahila Bachat Gat funds .

Conclusion

Women's from the self-help groups appreciated ICLEI SA for conducted the training program; they also assured their support to ICLEI SA and future project activities. Ms Geeta Sandal, ICLEI SA thanked Mr Mahesh Sudhakar Siddheshwar, President, Appropriate Rural Technology Institute (ARTI) and his team for conducting the training and providing information on low cost technologies that useful and rural women and are easy to implement and also maintain. The training Program was concluded by thanking all the participants. and requested if some of the technology like compost beds and be provided to initiate compost at household level.

