











Financing for Climate and WASH services

Center for Water and Sanitation CRDF, CEPT University

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This note covers interventions which have created an impact in assessing and strengthening municipal finance such as budget allocations for WASH and climate related activities, municipal budget analysis, capacity building and property tax assessments for three cities Vita, Karad and Ichalkaranji in Maharashtra which is funded under HSBC CSR grant.

About the project

In many Indian cities, the WASH services and operations are provided through fossil fuel-based energy source, which leads to high carbon emissions and consequently has adverse impacts on climate. Also, cities are spending a large amount of funds for the recurring operations and maintenance of these services. Moving towards non-fossil based / renewable energy sources for WASH operations will help reduce carbon emission, and also help cities to become financially sustainable with reduced recurring expenditure.

The HSBC funded project aims in implementing Energy Transition and Nature-based solution activities across the WASH value chain and ensure equitable and citywide inclusive services through gender empowerment.

Climate related WASH initiatives in HSBC cities

Climate risks need to shape cities' municipal finances

Financing for climate refers to the various methods and mechanisms used to fund projects and initiatives aimed at addressing climate change. This encompasses a wide range of financial instruments and strategies, which can come from public, private, and international sources as well as market-based mechanisms. Effective climate financing is crucial for mobilizing the resources needed to transition to a low-carbon economy and build resilience against the impacts of climate change. The factors which have to be considered are:

- Transparency and Accountability: Ensuring that funds are used effectively and for their intended purpose.
- Scalability and Sustainability: Designing financing mechanisms that can be scaled up and sustained over the long term.
- Inclusivity and Equity: Making sure that financing mechanisms address the needs of vulnerable and marginalized communities.

Approach and Methodology

The entire process was done through a desk-based research and analysis and stakeholder consultation. Municipal budget analysis and understanding annual budgeting process were key themes studied to carry out the process. CWAS team reviewed the annual municipal budgets of Vita, Karad and Ichalkaranji cities. The city budgets were analysed through WASH and climate perspective lens. For analysis, the income and expenditure heads of both its revenue and capital accounts were reviewed in detail and recasting of budgetary line items was done. Taking a step further, the annual budgeting process of these cities was understood through discussions with various stakeholders like City accountant, Chief Officer, and Departmental heads. It has been analysed that the budgets lacked structures and budgeting was merely a submission process. Allocation of funds was done based on the rationale of simply increasing previous year estimates with 5-10%. This made city budgets unrealistic leading to unplanned expenses. In order to improve the financial management of these cities, the following initiatives were taken:

- Suggestions on their annual budgets and budgeting process to make it WASH and climate friendly.
- Assessment of overall municipal budget, understand WASH allocations, actual spending, cost recovery and WSS collection efficiency.
- Capacity building and training of ULB officials to recast city budgets and prepare budget briefs.
- **Detailed assessment of property tax system** and suggest suitable recommendations for improvement.

1. Suggestions on annual budgets and budgeting process to make it WASH and climate friendly.

While understanding the budgeting process of the three cities, it was found that the budgeted estimates for upcoming year was merely based on linear increment by a certain percentage on the previous year estimates. This approach affected the overall financial planning of Vita, Karad and Ichalkaranji MC. The issue was highlighted to the officials based on which a few suggestions were made by the CWAS team to support cities in enhancing their budgets. During the budgeting process, the sanitation budget heads were reviewed in detail and new

line items which supported city's actions to make it climate resilient were suggested. This included adding line items like introducing solar initiatives on WASH systems, energy audit and replacement of pumps and machineries, utilisation of women and child welfare fund for SHG training and engagement, FSTP operations and maintenance, development of urban forest, procurement of PPE equipment for safety of sanitation workers. In total, **INR 12.4** million was allocated for all the three cities for FY 2023-24 and **INR 10** million was budgeted for FY 2024-25.

Table 1 Total funds allocated in the municipal budgets of Vita, Karad and Ichalkaranji

Total funds spent for FY 2023-24	Unit	FY 2023-24	FY 2024-25	
		allocated	allocated	
Karad	INR lakhs	376	274.5	
Vita	INR lakhs	551	432.5	
Ichalkaranji	INR lakhs	319	278.8	
Total funds allocated	1 INR=0.012 USD,	1246	985.8	
(in INR lakhs)	exchange rate as per			
	5th July, 2024			
Total funds allocated (in USD)	USD lakhs	15.0	11.8	

Table 2 Suggestions of line-items and allocation of funds for improvement of WASH and climate friendly line items in three cities

	Karad Municipal Council		Vita Municipal Council		Ichalkaranji Municipal Corporation	
WASH and climate friendly line-Items	FY 2023- 24 allocated	FY 2024- 25 allocated	FY 2023- 24 suggested	FY 2024- 25 allocated	FY 2023- 24 allocated	FY 2024- 25 allocated
Sanitation worker safety (PPE procurement or any safety equipment and training)	20	10	15	12	20	8.8
Urban forest	25	16.5	10	5	30	25
FSTP O&M and Scheduled desludging		55	500	400	91	55
Women and Child Welfare Fund for SHG training and engagement	25	25	15	15.5	25	25
Solar Initiatives O&M	6	168	11		153	165
Installation of solar through Majhi Vasundhara Prize	300					

Total	376	274.50	551	432.5	319	278.8
and machineries)						
(replacement of pumps						
Energy Audit						

Source: Municipal Budget of Vita, Ichalkaranji and Karad, FY 2022-23, 2024-25

2. Detailed analysis of city budget revenue and capital accounts and suggest suitable recommendations for improvement.

Recasting of budgets was required to understand WASH allocations through the City Budget Portal, a simple budget software to digitise and recast municipal budgets developed by the CWAS Team. The budget analysis is done in detail for five years- from actuals of FY 2019-20, FY 2020-21, FY 2021-22, RE 2022-23 and BE 2023-24. **Detailed municipal budget assessments** on key themes like **budget size**, **WASH allocations and utilization**, **inclusivity**, **capital utilization** etc. was done to understand effectiveness of the budget process and documents.

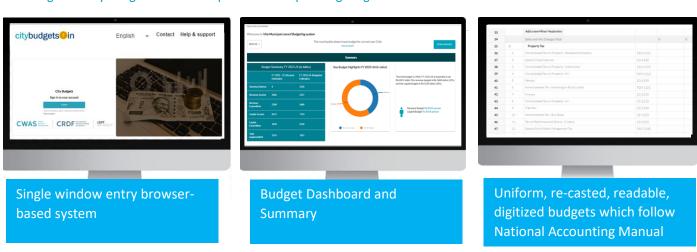
The budgets in all the three cities have increased by three to five folds in the last five years. There is an overestimation of revenues and expenditure with a variance of atleast 25% which leads to overspending and unplanned budgeting. The revenue income analysis identifies that cities are majorly dependent on revenue grants (48-57%) followed by own revenue sources. In terms of expenditure management, cities like Karad and Ichalkaranji were spending high on electricity cost for their water supply services. There are various avenues of inclusion like women and child welfare fund, blind and handicapped and weaker section fund in the municipal budgets, however, they remain utilized. The capital utilization rate of all the three cities is more than 100%, however, unpredictability of capital grants leads to overestimation of capital budgets. For example, in Vita, the SBM and 15th FC grants were estimated to be received in FY 2021-22 which were actually not received leading to delay in projects as well cost over-runs due to inflation.

3. Capacity building and training of ULB officials to recast city budgets and prepare budget briefs.

CWAS along with the Directorate of Municipal Administration (DMA), Maharashtra conducted a training workshop to operate the portal for accountants, computer operator and chief officer as pilot testing in ten municipal councils of Maharashtra. This included training of

officials from Vita, Karad and Ichalkaranji. The city budget portal allows municipalities to prepare uniform, re-casted, readable, digitised budgets which follow the National Accounting Manual. It has various features and modules which quickly analyses the budget document and generates budget summary on the dashboard. The approach from complex manual municipal budgeting to simple time saving budgeting has been adapted. The budget portal is in-built with validation checks which allows the cities to stick to certain rules and guidelines as mentioned in State Municipal Acts while preparing the budgets. It enables cities to prepare budgets both in English and Marathi language. Handholding support to resolve queries of the officials was provided through online sessions. This has also helped the cities in developing budget briefs to make important decisions based on the key sectoral analysis as to where the city gets its revenue from and where does the city spend on its expenditure. This has helped cities track their income and expenditure and plan their annual budgets based on realistic estimates.

Figure 1 City Budget Portal for improved municipal budgeting



4. Detailed assessment of property tax system and suggest suitable recommendations for improvement.

To assess own revenue streams of the cities, their property tax assessments were carried out in detail. This considered various parameters like method of assessment, structure of property tax, billing and collection efficiency of both current and arrear property taxes and expenditure made on property tax. The first key findings of the assessment process is that all

the three cities follow annual rateable method of assessment with revisions of rate tables that were last done 15-20 years ago. The second key finding is that though the current collection efficiency of property tax remains to be 70-77%, the arrear collection efficiency remains to be low ranging from 33-63%. This indicates that cities need to focus on the low hanging fruit of improving their property tax collections. The third key finding of the assessment is that the expenditure made on the property tax ranges from 1.34-22% of the total property tax demand which is generally high though there is no benchmark to property tax expenditures in the State Municipal Act.

Impact and key benefits:

The municipal budgets of all the three cities were discussed in the Standing Committee of the Councils and Corporation. The suggestions were appreciated by the members of the General Body Committee while approving the municipal budget at the city level. All the three cities could allocate realistic funds for their sanitation and climate budgets which will help the cities for better financial planning of their annual expenses. This initiative helped mobilising funds of INR 1256 lakhs in FY 2022-23 and allocation of INR 986 lakhs in FY 2023-24. Also, the local budgets are enhanced -more realistic, **transparent**, **inclusive**, **climate and gender friendly**. The cities are able to re-cast and digitise their budgets through the city budget portal which follow the National Accounting Manual and the budget brief summary reports are helpful in making better decisions during the annual cycle of budgeting.

Scale up and Way Forward:

CWAS Team will support Vita, Karad and Ichalkaranji in utilising and monitoring their funds through capacity building of the city officials. Emerging experience of climate friendly financing in these three cities has a great potential of scaling up to other cities in India and global emerging economies. These cities are a representative of **7400+ small and medium towns in India**. Experience in these cities can potentially impact over **150 million people** (~50% of urban population in India) who live in these towns. CWAS, CEPT has signed an MoU

with Environment and Climate Change Department of Maharashtra under state level mission-Majhi Vasundhara to achieve large scale impacts and improving access to clean energy and reducing carbon emissions. This approach will help in achieving the NDCs that India has committed to UNFCC.

Financing for climate

Linking climate budgeting to existing municipal budgeting

Detailed review and analysis of Municipal Budget, existing programs and schemes. Identify WASH and climate allocations and utilization







Undertake pre-budget consultation process. Budget inputs on possible allocations based on citizen's suggestions through pre-budget consultation meetings, applications, social media and forums

Identify existing WASH and climate related state and national government programmes and schemes through various ministries:





Solar subsidies and schemes: Roof-Top Solar program,
 PM Surya Ghar Muft Bijli Yojana, PM KUSUM etc.

Afforestation Schemes: NAGAR Van Yojana





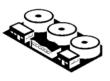


nalization of Climate Budgetary line items in municipal budget . Thus, preparation and integration of climate budgets with municipal budgeting

City Budget Portal developed by CWAS, CEPT helps in preparing digitized WASH and climate friendly municipal budgets and budget briefs which help in understanding sectoral allocations







Adoption of projects at municipal level

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Financing for climate

Integrating climate budgeting with municipal budgeting

Assessment of overall municipal budget and budgeting process



Integrating climate budgeting with municipal budgeting



Integrating WASH and climate friendly line-items with municipal budgeting

Capacity building and training of ULB officials



 Avenues like Women and Child Welfare Fund





- Solar Initiatives
- Sanitation worker safety
- Landscaping initiatives
- Energy audits

Innovative options to integrate climate finance

Carbon Credits Green Bonds

Green bonds can be used to raise capital for infrastructure projects. The Govt of India is offering incentives to cities to raise municipal and green bonds.

Project bundling which reduce carbon emissions can be done to quantify the volume of carbon emissions saved and avail carbon credits. These credits can be traded off / encashed in the market.



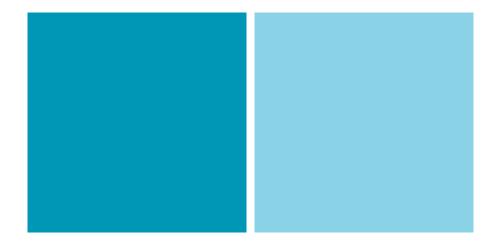
Indore Municipal Corporation was the first Indian civil body to earn carbon credits, making Rs 50 lakhs from selling credits against 1.70 tonnes of carbon dioxide in 2020. Water Credits

Water credits can be thought of as a system of exchange where those who use less water than they are allotted are able to earn credits that they can then sell to those who need more water than they are allotted.



Ghaziabad Municipal Corporation issued municipal green bonds in BSE and raised Rs.150 crore. Funds of these green bonds are used for the construction of a tertiary treatment plant (estimated cost approximately Rs. 239.39 crore) to benefit industries in Ghaziabad.

Junagadh MC in Gujarat issued 9 million water credits for saving one crore litres of water in its Hasnapur water reservoir which meets 30% of city's water demand. This has been approved by UNFCCC authorized agency – United Water Registry (UWR)



CENTER FOR WATER AND SANITATION

The Center for Water and Sanitation (CWAS) is a part of CEPT Research and Development Foundation (CRDF) at CEPT University. CWAS undertakes action-research, implementation support, capacity building and advocacy in the field of urban water and sanitation. Acting as a thought catalyst and facilitator, CWAS works closely with all levels of governments - national, state and local to support them in delivering water and sanitation services in an efficient, effective and equitable manner.





