

Training Need Assessment of ULB Engineers of Tamil Nadu

Prof. K K Pandey
Dr. Sachin Chowdhary

Executive Summary

Introduction

This TNA (Training Needs Assessment) report on virtual training on Urban Governance for municipal engineers in Tamil Nadu (TN) has been prepared at the instance of Commissionerate of Municipal Administration (CMA), Government of TN. TNA has been conducted using inputs from CMA and a survey of municipal engineers (Assistant Engineers, Assistant Executive Engineers, Executive Engineers, City Engineer/Municipal Engineer, Regional Engineer and Chief Engineer) .TNA also cover secondary information from relevant sources and current sectoral focus (recent budget of Govt. of India, report of XV Finance Commission and UN Sustainable Development Goals).

The main outcome of the report is in the form of a training agenda for virtual training on municipal governance covering a policy level framework for capacity building and virtual training and draft structure of the programme for adaptation by respective training entities. The report specifically covers eight interrelated sections :(1) Introduction, (2) Role of Engineers, (3) Working Environment and Facilitation, (4) Work Efficiency and Job Satisfaction, (5) Service Efficiency, (6) Current Sectoral Focus, (7) Competency Assessment and Gap, and (8) Training Agenda on Urban Governance for Municipal Engineers in Tamil Nadu.

Role of Municipal Engineers

The study reaffirms the fairly diversified nature of role to municipal engineers which covers a cross section of activities such as : (i) Project formulation, (ii) Execution of work , (iii) maintenance of municipal services , (iv) proper maintenance and accounting of municipal works and works from the public works department, (v) supervision of engineering works (vi) verification of specifications or standards of roads and bridges and (vii) powers to technical sanction, publicity of tenders, contract design containing rates, extension, measurement of work and inspection of works etc.

Main functions handled by the two types of ULBs (Municipal Corporations and Municipalities) are (i) municipal water supply, (ii) sewages,(iii) roads, (iv) flyover/overbridges (within city), (v) municipal buildings/Assets ,(vi) stadiums/playground,(vii) crematorium,(viii) lakes/tanks and (ix) parks and open spaces .In addition to the technical aspects in the planning, finance and delivery of

municipal services across the households in the ULBs, the role of engineers also involve (i) financial planning and models to arrange investment and budgetary exercise (ii) Monitoring of contractors (iii)Community contacting i.e. grievance redressal and community support for services (iv) upkeep of municipal assets .

Multiple agencies and stakeholders

A proper coordination and communication among multiple agencies /stakeholders is an important task for engineers to effectively manage municipal services. The respective ULBs are the nodal agencies for o&m of capital works on all the nine items (except for tanks and lakes where PWD is involved for capital works). In addition, state level line agencies and other stakeholders are also involved to provide specific support. These include (i) Tamil Nadu Water Supply and Drainage Board (TWADB), (ii) TWFIDCO (Tamil Nadu Urban Finance and Infrastructure Corporation), (iii) Private Sector, (iv) Community etc.

Work Assignment and Performance

Job satisfaction on role as above and the work assigned among engineers reaffirms the existence of encouraging and congenial environment created by ULBs and CMA. It is important to note that 60% respondents are satisfied with the current assignment in the top slab (80-100%). Yet, 39% appear in the lower slabs which indicate the need for additional measures to improve job satisfaction. Involvement in the ward committees, interaction with juniors/seniors, elected leaders, citizen, mode of interaction (social media –WhatsApp group) are important component to show performance on work assignment. It is striking to note:

- (i) Around 71% respondents are involved in ward committee activities. Considering the two third size of AE/AEE (who interact directly at grassroots level) in the sample, this seems reasonable. Yet, seniors (city engineer/executive engineer/regional engineer) may also be regularly updated through necessary reporting channels and follow-up. It may be added in the work agenda of engineers.
- (ii) Monitoring by seniors show that 50% engineers fall in the first four categories (20 to 80%) of satisfaction level and need additional measures to strengthen congenial environment. Similarly, the scope to improve cooperation from juniors is also significantly high. Accordingly, interpersonal communication needs further attention, although the share of top slab of satisfaction is fairly good.
- (iii) The reporting of grievances by community is modest/fairly low being 44 per engineer in December 2020. Second, the community at grass-root level needs handholding to come forward with their grievances
- (iv) The interaction with elected leaders is encouraging to 55% of respondents whereas 45% feel it to be discouraging. Accordingly, the synergy with elected leaders needs due correction.

- (v) It is also important that level of interaction with citizen is either encouraging (53%) or OK (47%) and the incidence of discouraging is not reported. This reaffirms the strong sense of local democracy and downward accountability in TN.
- (vi) In the current phase of time space collapse, social media is used intensively. The WhatsApp groups are used for both intra-departmental communication and interaction with community. The engineers are administrator of 123 WhatsApp groups. In addition, they are also member of 233 WhatsApp group with community.

Efficiency Levels of Services

ULBs in TN have a frame-work (as a bench mark for assessment taken as top slab as a proxy to benchmark in practical term) for wider improvement and potential adaptation. The top slab (80-100%) of efficiency varies from 21% in Sewage and PPP arrangements to 34% for Community Halls and Street lighting. Therefore, efficiency improvement in services is essential and also involves decisive role of municipal engineers. It is particularly important to note that:

- (i) Only 29% engineers feel that efficiency in water supply O&M is in the top slab (80-100%).
- (ii) Only 24% respondents indicate the efficiency of roads in the top slab (80-100%). Yet, efforts are needed to improve roads and related services to achieve desired levels of standards
- (iii) Maintenance of water bodies also needs further attention. More than two third engineers feel that it is below the top level of efficiency. Tamil Nadu being water scarcity state needs special attention. Yet, the ULBs in the top slab also show the way forward which needs to be adopted in a wider context.
- (iv) Municipal assets and buildings also need intensive efforts towards efficiency improvement with only 24% in the top slab (80-100%).
- (v) Municipal Parks, Playgrounds and Open Spaces also deserve special attention with only 24% engineers falling in the range of 80-100%.
- (vi) Value for money, efficiency and equity emphasise on Public Private Partnerships with nearly 80% Engineers feel scope for further strengthening of PPP among various services. At the same time, 'equity' involving designing of contract and follow up involves intensive role of municipal engineers.
- (vii) Community participation in the delivery of services is also lagging behind the desirable standards with 32% respondents feels it to be in the top slab. This also indicates scope to mobilise local elasticity in the form of cash, kind and management responsibility.

Sectoral Focus

The current budget, Report of XV Finance Commission and UN Sustainable Development Goals have created a positive environment for wider attention on municipal services. This focus will at

ULB level involve a larger role of municipal engineers as a focal point for necessary implementation.

Recent budget FY:22 of Government of India has placed special focus along with substantial increase in allocation on SBM-02 (Swachh Bharat Mission), Jal Jeevan Mission including integrated approach to water management, continuation of Smart Cities Mission and AMRUT (Atal Mission for Rejuvenation and Urban Transformation). A quantum jump in allocation and scope of work under this focus, which also involves state as intermediary link, will require a relook and strengthening on the role of engineers

Similarly, many United Nations Sustainable Development Goals (UNSDGs) also have focus on one or other aspects of municipal services particularly in the form of Goal 3 – Good Health and Well Being, Goal 6 – Water and Sanitation, Goal 7 – Affordable and Clean Energy, UNSDG 10 – Reduced Inequalities, UNSDG 11 – Sustainable Cities and communities, Goal 12 – Responsible Consumption and Production, and Goal 13 – Climate Action

Incidence and Scope of Capacity building

The incidence of training is fairly low and needs a larger coverage and updation of engineers as per changes in the different aspects of know-how and do-how. It is important to note that only 18% municipal engineers among municipal corporations and around 8% among municipalities are covered per annum under the various training programmes. On the whole around 12% engineers per annum (out of 610 engineers) get a chance to attend training programmes. Study visits conducted by engineers included only outside visits in 2019-20 in three batches. Accordingly, inter-state/domestic study visits need to be suitably added in the agenda for training of the municipal engineers.

The engineers need special exposure and ways and means to improve inter-agency coordination, more productive use of working hours (which are already long enough) and innovative ways on interpersonal relations, partnerships, budgeting etc under various training programmes and study visits within and outside states in India. Further, as indicated in the National Training Policy a dedicated allocation of 2.5 percent from salary budget should be made for capacity building activities.

Competency Framework and Gap

The competency framework for engineers should focus on (i) Ethos (people first), (ii) Ethics (taking accountability), (iii) Equity (consensus, consultation and delegation), and (iv) Efficiency (result-oriented communication and consensus building) as determined in the UNDP and DoPT study. This also coincides with the norms of good governance namely Decentralisation, Accountability, Transparency, Equity, Efficiency and partnership. The common features of the two set of norms give emphases on interpersonal and inter-personnel relationships, communication, team building, outreach, empowerment information development/dissemination and downward accountability.

In this regard, a typology of areas of competency gap as identified by the engineers in Urban Governance are fairly relevant for capacity building. These are: (1) Management and Finance, (2) Project Management, (3) Energy Savings, (4) Solid Waste Management and Management of Faecal Sludge, (5) Maintenance and Management Techniques, (6) Levelling & preparation of sketches and volume of UGSS, Water Supply, (7) Advanced Waste Water Treatment Technology including Hybrid Annuity Model (HAM), and (8) Advanced Construction Techniques - use of pre-fab technology, Green building etc.

In addition, specific areas of attention include Water conservation initiatives, Water harvesting proposals and follow up, Road safety measures – pollution, footpath, street infrastructure, plantation, storm water drains., Street Lighting – use of non-conventional sources (community, civil society and industry/business) , Budget Estimates – Realistic Calculation, Revision of Budget – Realistic Calculation, Participatory budgeting – local/ward level potential, Monitoring of Contractors – payment to Contractor, Project Management – Cost and time overrun.

Training/Capacity Building Agenda for CMA

On the basis of current role of engineers/ work assignment, efficiency levels of services, incidence of capacity building, sectoral focus and competency norms and framework, Study suggests a twelve -point training agenda for CMA which includes:

- (i) Training for municipal engineers on urban governance should be a regular feature.
- (ii) A competency frame-work should be developed giving due regard to interpersonal relationship, outreach (within communities), clarity of role (suitable elaboration), P2P learning and feedback.
- (iii) Tenure should be rationalised with adaptation of transfer policy
- (iv) Workload (which is also linked with incentives promotion and facilitation should include team building, performance benchmark awards and rewards. Further, the requirements of engineers should be worked out keeping in view the scope of work and current strength.
- (v) State should initiate ‘engineer of the month’ associated with documentation and dissemination of tasks performed and achievements gained.
- (vi) New normal protocol should be adopted to formalise virtual training and sharing of information on a regular basis.
- (vii) Study visit particularly within the states and inter-state level should also be integral part of training and P2P learning.
- (viii) CMA should also develop guidelines, checklists, SOPs (Standard Operating Procedures) to suitably supplement training process and adaptation at local level.

- (ix) On the job training should also be initiated with (a) short-term deployment of engineers from better off/innovative cases to other towns and (ii) short-term placement of select groups of engineers to better of towns.
- (x) Necessary budget as earmarked by DoPT document of National Training Strategy (2.5% of salary budget) should be allocated.
- (xi) Assignment of roles and responsibilities to develop a suitable training plan within CMA, states institute of municipal training at Coimbatore and other entities as may be made
- (xii) Develop a cadre of Engineering Service for Municipal Corporation or merge the two cadres into one.

Draft Structure of Three-day Virtual Course

Finally, the TNA provides a draft structure for three-day virtual course for municipal engineers giving specific objectives to build urban governance capacities in a participatory manner along with contents and session –wise details for suitable adaptation by respective training entity as decided by CMA. Sessions to be designed, developed and delivered are as follow:

- (1) Introduction, Course Objectives, Competency and Good Governance Norms and adaptation for Municipal Engineers
- (2) Interpersonal Relationship, Team Building and Communication
- (3) Global and National Urbanisation, Urban Scenario in Tamil Nadu and Role of Municipal Engineers
- (4) The Main Exercise, Competency Assessment and Gap, Indicators and Follow-up agenda for Municipal Engineers
- (5) Planning for Services, Procurement, Development and Monitoring of Contract
- (6) Community Interface – Modes and Modalities
- (7) Efficiency Improvement in the services – Benchmarking and Case Studies Water & Sewerage/Drainage
- (8) Municipal Solid waste/Roads and Related Services-Benchmarking and case studies
- (9) Municipal Building and Assets-Upkeep and Revenue model
- (10) Budgeting and Follow-up Estimation, Tools and Techniques for participatory and realistic estimation
- (11) Downward Accountability, Modalities and Case Studies
- (12) Presentation of Main Exercise and Take-Home Points and Valediction