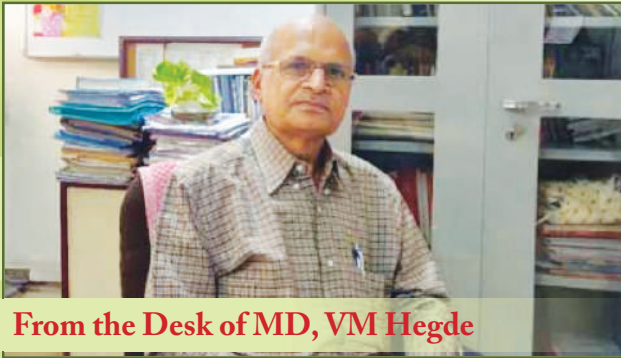


Arena of Program Management Consultancies



From the Desk of MD, VM Hegde

Greetings from STEM!!

Centre for Symbiosis of Technology, Environment and Management (STEM), Bengaluru a Premier Society, registered under the Karnataka Societies Registration Act, 1960. During the last 34 years of the purposeful journey, STEM has completed a wide spectrum of multi sectoral and cross functional assignments. This STEM REPORTER presents the highlights of recent experience of STEM in Program Management Consultancies.

STEM wishes you a Safe, Happy & Prosperous 2022

Bengaluru

January 2022

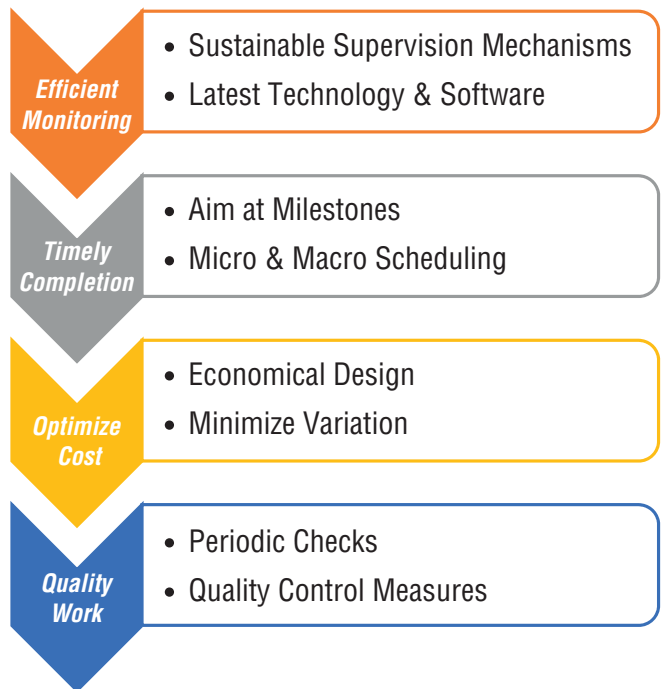
There is a growing challenge to provide basic infrastructure facilities to rapidly increasing population in both urban and rural areas.

With over 3 decades of experience and PAN India presence, STEM's capabilities have been built over the years with diversified projects delivered towards sustainable development. A dedicated talent pool of professionals with wide variety of skill-sets were involved in the successful completion of these assignments.

STEM has extended on-site technical monitoring consultancies for ensuring the compliance of major infrastructure projects (funded by international funding agencies) by rendering services as Project Management Consultants (PMCs) and also as Program Management Units (PMUs).

The objective of engaging PMC/PMU is to provide technical support to the project authorities in facilitating the implementation of the projects through effective management and co-ordination of project activities to ensure timely project execution/ completion.

Our approach for the effective project implementation includes:



1. Facility Management and Institutional Development Consultants (FMIDC-2) for Implementation of ADB assisted Karnataka Integrated Urban Water Management Investment Programme (KIUWMIP) at Bangalore; Sponsored by: Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC); GoK

The project is being implemented in 8 Towns (4 Tranche-1 towns; Davanagere, Harihara, Ranebennur; Byadgi, and 4 Tranche-2 towns; Mangaluru, Puttur, Udupi and Kundapura; total covering 10 UGD works and 15 Water Supply works. The objective of the FMIDC is to provide assistance and facilitate the state and regional project management units (PMUs) in undertaking its program management, monitoring and coordination and institutional reform monitoring functions in implementing the project. STEM provides a team of 17 Professionals at client's office. Of the total duration of 36 months, the team completed 17 months.

Specific project activities for the preparation and implementation of key components in the 8 Project Towns are; a) Institutional and governance reforms; b) Legalizing the unauthorized connections; c) Volumetric Tariff Determination Models; d) Urban Watershed Management Plans; e) State Public Stand Post Policy Plans; f) Water Safety Plans; g) Monitoring & Assessment Framework for Non-Revenue Water (NRW); h) Water Service Charters and Waste water management Plans; i) State Water Council for Drinking Water & Sanitation (DW&S); j) Climate Change Management Guidelines and Plans; k) Management Information System (MIS) and Project Performance Management System (PPMS); l) Mapping and integration of projects' assets into Geographical Information System (GIS) platform; m) Preparation and implementation of five IT Modules viz. a. Consumer Database Management; b. Ring Fencing of Water & Water Accounting of ULBs; c. GIS based MIS Reports including assessment of NRW; d. GIS based Asset Management for Decision Support with SCADA; e. Module for water accounting and water quality and effluent discharge.



Commissioning of Water Treatment Plant, Ranebennur by Sri Basavaraj Bommai, Honourable Chief Minister of Karnataka



Water Treatment Plant, Ranebennur inspection by Managing Director, KUIDFC and Task Manager, KIUWMIP

2. Urban Infrastructure Project (24x7 Water Supply & UGD Projects) under NKUSIP for Ballari Division (7 Towns) and Gulbarga Division (5 Towns) in Karnataka (ADB assisted)

The Government of Karnataka (GoK) through the Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) has prepared the North Karnataka Urban Sector Investment Program (NKUSIP) under the Asian Development Bank assistance. The goal of the program is to improve the level, quality and sustainability of basic urban services in selected Urban Local Bodies (ULBs), contributing to improved quality of life among the urban poor. The NKUSIP is consistent with GoI's urban reform objectives for the Tenth Plan period (2002 – 2007).

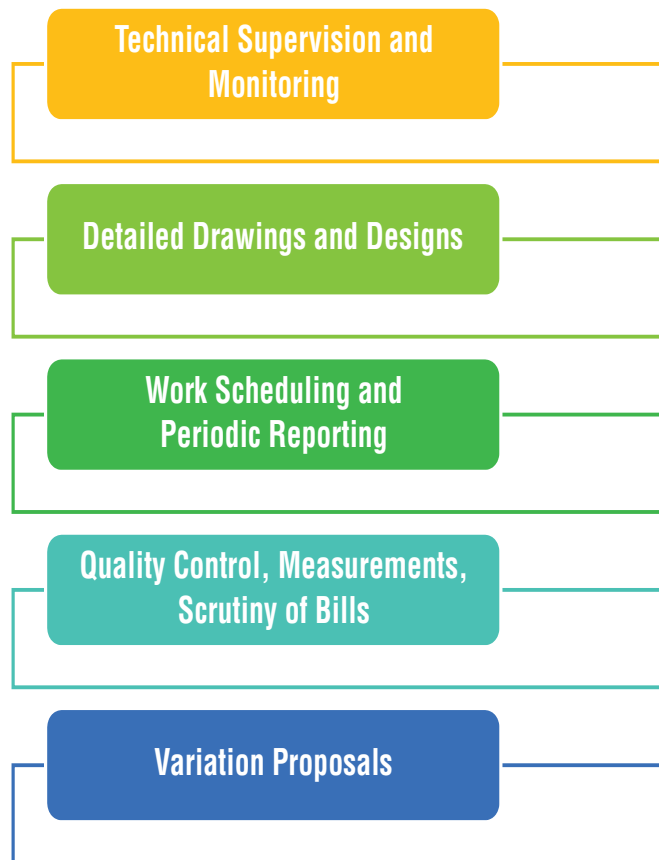
STEM functioned as PMC for Ballari Division comprising SEVEN TOWNS (34 Packages) and Gulbarga Division comprising FIVE TOWNS (24 Packages) (August 2017 to May 2019).

Ballari Division Towns	Gulbarga Division Towns
• Ballari • Hospete • Sindhanur • Raichur • Koppal • Gangawati • Chamarajnagar	• Gulbarga • Bidar • Basavkalyan • Yadgir • Shahbad

Project Components include:

1. Bulk Water Supply
2. 24x7 Water Supply
3. Water Treatment Plant (WTP)
4. Under Ground Drainage (UGD) System
5. Sewage Treatment Plant (STP)
6. Slum Improvement
7. Tourism Development
8. Public Buildings, and
9. Lake Development

Responsibilities of PMC are listed below:



Water Treatment Plant at Ballari



Sewage Treatment Plant at Raichur

3. Comprehensive Capacity Building Program for Urban Development Schemes across India under Jawaharlal Nehru National Urban Renewal Mission (JnNURM) (MoUD, GoI Project)

Ministry of Urban Development (MoUD), Government of India has formulated a Capacity Building Scheme for Urban Local Bodies (CBULB). This scheme is aimed at strengthening urban local governments through capacity building for better governance and financial management. STEM as a Technical Support Unit, (June 2013 to September 2015), carried out following tasks.

Planning & roll out of capacity building programmes:

The key highlights of SSU-CB achievements at MoUD are as below:

- Preparation of Guidelines
- Handholding States in preparation & finalization of Capacity Building proposals
- Handholding States/ Cities in the preparation of Service Level Improvement Plans (SLIPs) and State Annual Action Plan (SAAP) under AMRUT
- Coordinate and monitoring with States / Nodal Depts. in finalization and selection of agencies for development Proposals
- M&E Formats/ Reporting from States
- Also assisted in drafting AMRUT, Smart City related Proposals

Knowledge Management:

- Conducting regional workshops on 'Preparation of Smart City Proposals'
- State level workshops on handholding in preparation of SLIPs by ULBs and SAAP by States under AMRUT
- Consultative Workshops on Urban Governance covering all States



A Consultative Workshop

Articles Published

- Behaviour Change Communication: A Social Marketing Framework for Sustainable Swachh Bharat published in *The Journal of the Indian Institute of Mass Communication*
- Smart Citizen Behaviour: The Core of Smart Cities in India published in *Local Government Quarterly*
- Comprehensive Framework for Training Needs Assessment of ULBs in India published in *Urban India*

4. Fluorosis Mitigation Component under Hogenakkal Water Supply Project in 3 Municipalities (Dharmapuri, Krishnagiri and Hosur) and other rural areas in Tamil Nadu (JICA funded)

With an endeavour to provide potable water, with permissible limit of fluoride, to the affected population in the project area, the TWAD Board implemented the Hogenakkal Water Supply and Fluorosis Mitigation Project (HWS & FM Project) with the financial assistance from Japan International Cooperation Agency. (June 2010 to March 2015).

Project Coverage

- 2 Districts
- 3 Municipalities
- 17 Town Panchayats
- 588 Village Panchayats
- 6755 Rural Habitations

The scope of STEM's technical consultancy includes:

1. Human Resource Development (HRD) & Capacity Building: Preparation of Training Materials & Training:

Doctors - 828

Teachers - 3,785

Community Health Workers- 2,305

2. Survey & MIS

Students - 4,24,047

Households - 6,67,224

Water Sampling & Analysis - 44,360

3. Interventions & IEC Component

Diet Counselling

Medical Camps

IEC Material



Folk media under IEC component

Effects:

An increase of 15% in the consumption of food items rich in Calcium, Vitamin D such as milk products, green leafy vegetables, fruits; usage of nutritive supplements provided and drinking water from safe sources.

Drastic reduction in consumption of items with high fluoride contents.

Impact:

Reduction in symptoms of non-skeletal fluorosis as evidenced by Impact Assessment.

Articles Published

- "Impact of Behaviour Change Communication: on Non Skeleton Fluorosis: A case Study from Tamil Nadu" published in *The Journal of the Indian Institute of Mass Communication*

5. Rural Water Supply & Sanitation Schemes under Jal Nirmal Project of KRWSSA for selected GPs in Raichur and Bagalkot Districts in Karnataka (World Bank assisted)

In the capacity of Technical Support Agency (TSA), STEM was responsible for providing planning, design, technical & community development support to a group of:

- 22 Villages in 5 GPs (Raichur)
- 16 Villages in 4 GPs (Bagalkot)



An Over Head Tank in Bagalkot

6. Multi Village Water Supply Scheme (MVS) in Kotikal and other 8 villages in Bagalkot and Kamthana & 18 Villages in Bidar (World Bank assisted)

- Bidar (9 villages)
- Bagalkot (19 villages)

As TSA, STEM provided integrated technical and social development support in implementation of these Schemes

Areas covered under Technical Support:

Water Supply, Ground Water Recharge, Drainage & Lane Improvement, Environmental Management, Sanitary Latrine Construction, Operation & Maintenance

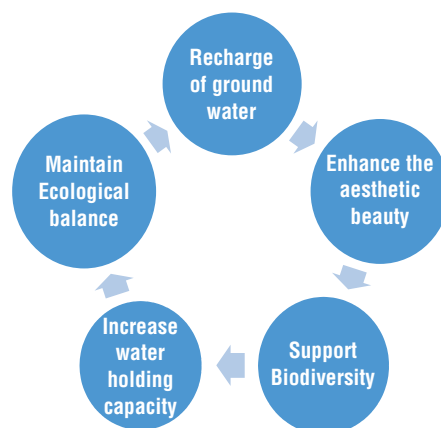
Areas covered under Social Development Support:

Women's Development Programme, Sanitation & Hygiene Promotion, GP Strengthening, Community Cash & Labour Contribution and Monitoring & Evaluation

7. Lake Development Projects under Corporate Social Responsibility (CSR) funded

Lakes are known to be the ecological barometers of the health of a city. They regulate the micro climate of any urban centre.

Importance of Lake Development:



PMC for TWO LAKES' Rejuvenation:

- Abbankuppe Lake, Bidadi (TOYOTA)
- Veerasandra Lake, Bangalore (TITAN)



View of Abbankuppe Lake, Bidadi



Aerial view of Veerasandra Lake

8. Design and Construction Supervision consultancy for Implementation of Bulk Water Supply to KR Pet Town of Mandya District, Karnataka; Sponsored by: Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC); GoK

The objective of the project is to provide safe clean reliable & sustainable drinking water supply contributing to improved quality of life among the urban citizens. STEM is acting as Project Consultant (PC) and manages the project to achieve desired output. Bulk Water Supply 11 MLD existing 3 MLD rehabilitation, WTP Capacity 11 MLD, MS Raising pipeline 5 KM. The specific project activities of PC include; a) Planning & Design inputs, b) Physical and financial monitoring & reporting, c) Construction supervision and monitoring; d) Quality Assurance including 3rd party inspection, e) Contract Management, f) Environment Safeguards & Management; g) Joint measurement and Certification of the works completed and recommending payments of the contractors as well as progress monitoring; h) Frame quality control procedures and quality control of the works. STEM provides 7 Nos. Professionals' Team at project location. Of the total duration of 18 months, the team completed 15 months.



Task Manager, General Manager cum Chief Engineer and Executive Engineer, 9 Towns, KUIDFC site inspection

ONGOING PROJECTS

1. National Level Performance Evaluation Study on Convergence of MGNREGA, NRLM and CFT Strategy Project for Ministry of Rural Development (MoRD), Govt. of India.
2. National Level Monitors. Regular Monitoring visits - 2021 in Andhra Pradesh and Maharashtra for MoRD, Govt. of India.
3. Impact Assessment Studies of Swachh Bharat Mission (Gramin) and Jal Jeevan Mission (JJM) Schemes for Rural Drinking Water & Sanitation Department (RDWSD), Govt. of Karnataka.
4. Manpower Support of SLWM & WQMS consultants, on outsource basis, for Swachh Bharat Mission – (Gramin) for Rural Drinking Water and Sanitation Department, Government of Karnataka.
5. Preparation of GIS Based Master Plan Formulation for 3 Class – I cities viz. Amroha, and Chandausi and Sambhal, for Directorate of Town and Country Planning (DTCP), Govt. of Uttar Pradesh.
6. Preparation of GIS Based Perspective Plan, Master Plan and Zonal Development Plans for Ananthapuramu – Hindupur Urban Development Authority (AHUDA), Govt. of Andhra Pradesh.
7. Preparation of GIS Based Master Plan under AMRUT Scheme" for 3 towns viz. Khammam, Nalgonda and Suryapet for Directorate of Town and Country Planning (DTCP), Govt. of Telangana State.
8. Formulation of GIS Based Master Plan under AMRUT Scheme for 6 towns viz. Chickmagalur, Chitradurga, Davangere – Harihar, Ranebennur, Mangaluru and Udipi (Package 2 & 3), in Karnataka State for Directorate of Town and Country Planning (DTCP), Govt. of Karnataka.
9. Facility Management and Institutional Development Consultants (FMIDC-2) for Implementation of ADB assisted Karnataka Integrated Urban Water Management Investment Programme (KIUWMIP) for Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC), Govt. of Karnataka.
10. Design and Construction Supervision Consultancy for Implementation of Bulk Water Supply to KR Pet Town, Mandya District, Karnataka for KUIDFC, Govt. of Karnataka.
11. Concurrent Monitoring and Evaluation of Agriculture Technology Management Agency (ATMA) Scheme in Karnataka State during 2018-19 for Karnataka Evaluation Authority, Govt. of Karnataka.
12. Conducting Initial Environmental Examination (IEE) Study for Providing Drinking Water Supply to Entire Rural Villages/ Habitations of Yadgir District for Rural Drinking Water and Sanitation Department (RDWSD), Govt. of Karnataka.

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