



# SUSTAINABLE CITIES & INFRASTRUCTURE

**We** are providing solutions for urban planning & management and sustainable infrastructure development for ensuring improved liveability and livelihood opportunities.





**The world's urban population is increasing exponentially.**

With a growing number of informal settlements, inadequate and overburdened infrastructure, and services (such as waste collection, water and sanitation systems, roads, and transport), worsening air pollution, and unplanned urban spaces, there is a need to build cities that are inclusive, safe, resilient, and sustainable.

With an in-depth experience in this domain, we leverage our people capabilities and technology to provide holistic solutions that navigate through complex urban challenges, improve quality of life and drive smart growth. We advise governments in developing countries including South Asia, Southeast Asia, and Africa on how to tackle urban sustainability challenges by developing and implementing strategies for a low-carbon, sustainable future. Our expertise is well-paced with national & international best practices, especially in the core areas of smart cities, climate-resilient infrastructure, water management solutions, sustainable waste management, sanitation, green infrastructure interventions, innovative construction technologies, and social & gender inclusion.



## Thematic Focus



Urban Planning and  
Re-Development



Urban Resilience and  
Climate Change



Infrastructure and Engineering



Urban Transport and Mobility



Smart Cities & Master Planning



Water Management Solutions



Waste Management and  
Sanitation



Urban Reforms and  
Governance



Municipal Financial Reform



Community-Based Planning

## MAKING A DIFFERENCE WITH OUR WORK

### Asian Infrastructure Investment Bank (AIIB)

#### Preparation and Design Consultancy Services - Integrated Solid Waste Management Improvement Project (ISWMIP), Bangladesh

Rapid urbanization and high economic growth are posing immense challenges in waste management in Bangladesh. The proposed investment project aims to improve Solid Waste Management (SWM) services in selected municipalities in Bangladesh. Specifically, the investment project will: (i) improve public health and quality of life by reducing exposure to pollutants and disease vectors associated with solid waste; (ii) strengthen the government's capacity to plan for and implement effective waste management services; and (iii) improve SWM practices in the country, encouraging waste minimization, recycling, and segregation at source.



**USD 250 million+**

investment over next 5 years  
to improve urban waste  
management



**3200**

Tonnes/Day of waste  
generation in 10 cities to be  
addressed



Transition to new waste  
management approaches-  
Regional Integrated Landfill  
& Integrated Resource  
Recovery Facility





**Housing & Urban Development Department (H&UDD), Government of J&K State Urban Development Agency (SUDA), Chhattisgarh Karnataka Urban Water Supply & Drainage Board (KUWS&DB)**

## **Comprehensive Project Management Service (CPMS) to H&UDD for implementing various projects under AMRUT in selected ULBs; Project Development and Management Consultant (PDMC) for AMRUT Mission in Karnataka & Chhattisgarh**

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) is a flagship urban sector scheme of the Government of India launched in June 2015. The mission aims to ensure water supply and sewerage services at the household level in 500 cities with 1 lakh plus population across India. Mission components consist of water supply, sewerage and septage management, storm water drainage, non-motorised urban transport, development of green spaces and parks, along with capacity building and reform implementation. We have provided critical program and project management support to clients in terms of preparation of service level improvement plans (SLIPs), state annual action plans (SAAPs), engineering designs and detailed project reports (DPRs), project procurement and bid process management, contract administration and contract management, construction supervision, third-party inspections, monitoring, and evaluation (M&E), community awareness and IEC activities.



Managed

**70 Million+** worth projects which represents 10% of the overall AMRUT portfolio in India



Supported states ranked among

**Top 10** performers in the national AMRUT rankings



Improved basic urban services in **37 cities**

across India which includes creation of 27 water treatment plants (WTPs), 38 sewage treatment Plants (STPs) and piped water supply connections to more than 6,00,000+ households





## AFD &amp; MoHUA

## Technical assistance to the Ministry of Housing and Urban Affairs for the preparation of Urban Water Supply Guidelines; Support in implementation of AMRUT 2.0 & Design and Operation of a National Investment Challenge

The objective of the project is to assist MoHUA in developing an investment challenge that is in line with the priorities of the urban water sector in order to encourage ULBs and promote demonstration projects in sync with the AMRUT 2.0 policy objectives, including resilience to outbreaks like COVID-19. We are also supporting the AMRUT 2.0 mission launch, with a focus on sectoral institutional improvement and capacity building across all states in areas like water demand-supply management, water conservation techniques, and water management technology, among other things. By creating PPP standards and an implementation framework for states across the nation, we are providing specific support to the ministry in promoting public-private partnerships in the water sector.



Innovating water  
secure initiatives  
as targeting  
reforms in

**AMRUT 2.0**  
Cities



Driving unique  
innovations with  
Climate Resilient  
Water Investment  
Challenge



Facilitating  
capacity-building  
targeting  
more than

**4800 ULBs**  
under AMRUT 2.0





GIZ || Developing Viable Technical Solutions for Planning a LEZ at Lingaraj Temple area in Bhubaneswar (2022-2023)

The proposed Low Emission Zone (LEZ) at 'EkamraKshetra' Heritage Zone in Bhubaneswar has a concept in place for development of LEZ around Lingaraj Temple. The 'EkamraKshetra' heritage zone (houses the famous Lingaraj Temple) was chosen to be developed as a LEZ. The concept visions to provide the people of this city as well as the visitors to this city a unique experience of cleaner air for better health. The concept was put in place by the Odisha State Pollution Control Board (OSPCB) in their concept report on LEZ- Bhubaneswar has some key elements for emission reduction within the zone such as Ambient Air Quality Monitoring and Communication, Green – Sticker System for the Local Resident's Private Vehicles and Intensive Emission Monitoring of Resident's Emission; Generator Sets, Promotion of EVs/ Shared EVs for Tourists; Un-Interrupted Electricity Supply; and Promotion of Cycling and Pedestrian Passage.

We have been engaged to prepare a detailed plan for EkamraKshetra Low Emission Zones (LEZ) for improving the urban air quality by incorporating socially/culturally relevant, technically sound and financially viable solutions with relevant measures traffic and transportation, replanning of the area, heritage conservation, tourism promotion with environmentally sensitive measures, emission control measures, plantation & landscaping, air quality monitoring, waste management and dust control to reduce air pollution and improve air quality in the selected area. The developed plans upon implementation are expected to demonstrate reduction of air pollution and improvement in air quality in the selected area, thereby enabling city to replicate similar measures. The planned LEZ, as envisioned by OSCPB is expected to provide the citizens of Bhubaneswar and the visitors to the city with clean air for better health and improved quality of life, through eco-sensitive planning, without compromising employment growth and ensuring preservation of diverse historical and cultural heritage.

UK Foreign, Commonwealth & Development Office || Cities and Infrastructure for Growth Ghana: Phase 2 (2022-2023)

The Cities and Infrastructure for Growth – Ghana (CIG Ghana) Programme in its first phase delivered support to two cities (Sekondi-Takoradi and Tamale) in Ghana to address climate change. This focused on urban flooding producing flood modelling work, identifying potential soft and hard infrastructure interventions and provided guidance on sources of climate finance. A key finding from this first phase was the lack of focused support for cities to address climate actions in particular for accessing finance. It also highlighted the high level of inputs required to prepare climate interventions to get to feasibility and financing stage.

Whilst nationally technical assistance can be directed to support these stages of project development it is rare that this support is provided at a city level. Therefore, the second phase of the CIG programme will seek to address this gap. A crucial next step will be to build on the technical guidance and data outputs produced in Phase 1 to support the two cities identify potential solutions and work in partnership to take this forward. Additionally, the project will replicate flood risk analysis done under Phase 1 in Phase 2 for another 1-2 towns in line with the British High Commission Ghana's renewed focus on Northern Ghana and respond to the original ask of Government of Ghana under Phase 1 to do more work in the North.

World Bank/PGDF (Project Development Grant Fund) under TNUIFSL (Tamil Nadu Urban Infrastructure Financial Services Limited) || Consulting Services to study the Best Practices and Lessons Learnt from Tamil Nadu Sustainable Urban Development Project (TNSUDP), Tamil Nadu (2022)

World Bank/Govt. of Kerala || Technical Support Consultancy (TSC) Services for Kerala Solid Waste Management Project (KSWMP) for Package B (Alappuzha, Ernakulam, Idukki, and Kottayam) and D (Kannur, Kasaragod, Kozhikode and Wayanad) (2022-2027)

FCDO || Design of Green Urban Growth (GUG) Programme in Somalia (including Somaliland) (2022)

The Tamil Nadu Sustainable Urban Development Project (TNSUDP) is being implemented by Government of Tamil Nadu with the assistance of World Bank for improving urban services in the participating Urban Local Bodies in a financially sustainable manner and to pilot improved management practices in selected cities. As the project is nearing completion, a clear analyses and documentation of outcomes, results achieved, best practices and lessons learnt will be critical for design and implementation of future urban sector interventions through systematic capture of data /information/outcomes after rigorous analyses.

The objective of the consultancy is to extract and document the lessons learnt and best practices of TNSUDP and develop a range of knowledge products for diverse channel and means (guidelines, reports, publications and other materials) and sharing the acquired knowledge and information for their adaptation in design and implementation of future urban sector interventions.

The project objective for the proposed Kerala Solid Waste Management Project is to strengthen the institutional and service delivery systems for SWM in Kerala. KSWMP aims to adopt sector wide integrated value chain approach for enhancing the service delivery for waste management in Kerala. Key components of the KSWMP Project includes:

**Component 1:** Institutional development, capacity building and project management

**Component 2:** Support to ULBs for SWM

**Component 3:** Development of regional SWM facilities

SPMU under LSGD (GoK) has appointed IPE Global as Technical Support Consultants (TSC) for 8 districts and 52 ULBs (under two packages) to provide end to end support to the ULBs in preparation and implementation of 5-year city wide SWM plan including technical/engineering, environment, social and overall institutional/governance support to the ULBs for SWM services improvement. This will include sub-project planning and design; contract management and implementation supervision; supporting in environmental and social safeguard requirements.

IPE Global as TSC will deploy dedicated teams in each district to support the ULBs in the respective districts and provide support on:

**Activity 1:** Technical assistance for SWM planning and institutional reforms

**Activity 2:** Technical support for SWM sub-project preparation and implementation

**Activity 3:** Environmental safeguard management support for SWM sub-project planning, preparation, and implementation

**Activity 4:** Social safeguard, gender inclusion, citizen engagement and communications support for SWM sub-project planning, preparation, and implementation.

Triple Line is supporting the Business Case Design of a new Green Urban Growth (GUG) programme for Somalia (including Somaliland), of up to £25 million over seven years (2023–2030). The GUG programme proposes to unblock access to resilient basic services and create green economic opportunities, benefitting Somalia's urban poor. As part of the project, vulnerable cities with high economic potential (trade corridors) will be prioritised.





## World Bank II Appointment of Independent Verification Agency (IVA) for Assessing Disbursement Linked Indicators (DLIs) to Support Chennai City Partnership Program -Sustainable Urban Services Program for Results in Chennai (2022-2027)

In order to implement the multifaced urban improvement program, Government of Tamil Nadu has set up an urban service delivery improvement program for Chennai Municipal Administration, aligned with Tamil Nadu's Vision 2023 and focused on poverty reduction, good quality service delivery with universal access, and environmental conservation. To cater GoTN's need, The World Bank prepared the Chennai City Partnership Program for Results (PforR) operation. The program will support the Government of Tamil Nadu's Finance Department through IBRD financing of US\$150m (with additional US\$150m co-financing from AIIB), with implementation to be undertaken by the Tamil Nadu Infrastructure Development Board (TNIDB). The program will disburse to GoTN based on the achievement of Disbursement Linked Indicators (DLIs) which are tied to key results from the Program. The program covers multi-sectoral focus i.e., water supply (integrated urban water resource management and resilience), urban mobility services; solid waste management and public health services and are aligned to the following result areas:

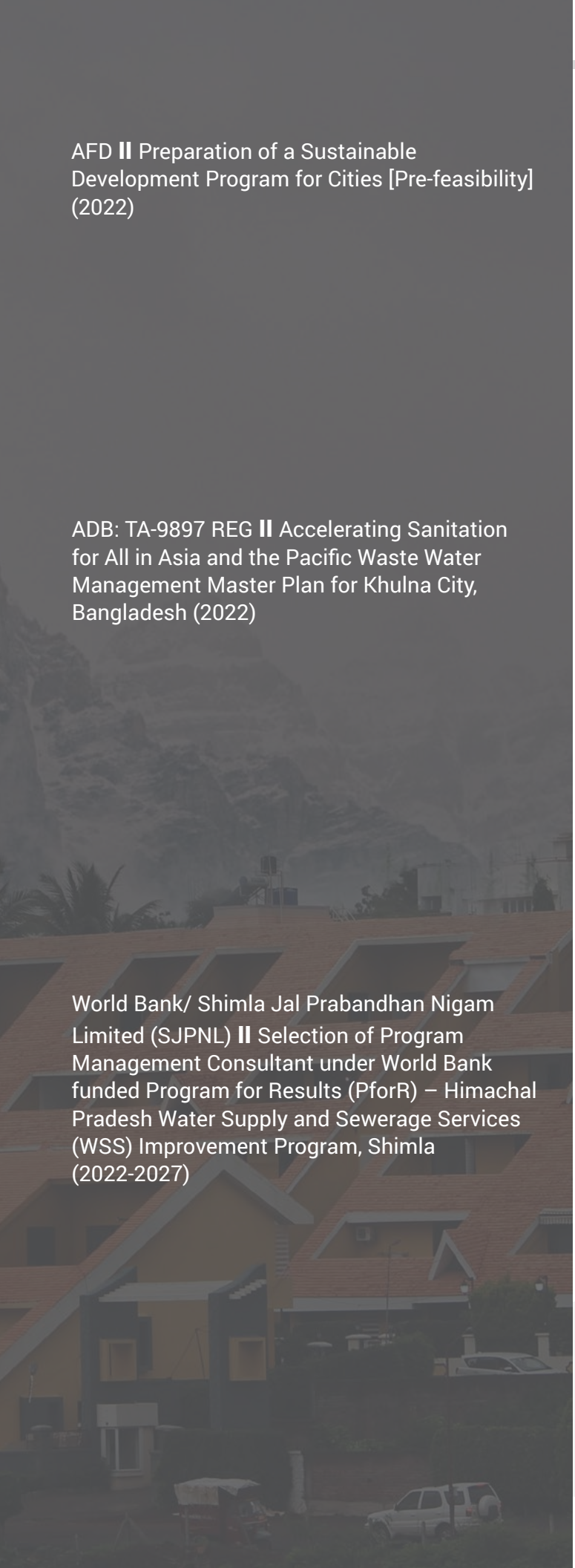
**RESULTS AREA 1:** Strengthening governance and institutions.

**RESULTS AREA 2:** Enhancing the quality, efficiency, and sustainability of urban services

**RESULTS AREA 3:** Improving financial sustainability of urban services

We have been appointed to design, undertake, and provide regular, high quality independent verification of the achievement of the 10 DLIs as agreed under the World Bank supported Chennai City Partnership Urban Services Program for Results.





AFD II Preparation of a Sustainable Development Program for Cities [Pre-feasibility] (2022)

ADB: TA-9897 REG II Accelerating Sanitation for All in Asia and the Pacific Waste Water Management Master Plan for Khulna City, Bangladesh (2022)

World Bank/ Shimla Jal Prabandhan Nigam Limited (SJPNL) II Selection of Program Management Consultant under World Bank funded Program for Results (PforR) – Himachal Pradesh Water Supply and Sewerage Services (WSS) Improvement Program, Shimla (2022-2027)

Triple Line is carrying out a pre-feasibility study to design a technical assistance programme as part of the larger Team Europe Initiative (TEI) and is supporting sustainable urban development in intermediary cities in Tanzania. The focus is on the cities of Mwanza and Tanga; and sustainable urban development in this context is stated as ‘improving the conditions for greening cities and job creation’. The project will look to highlight opportunities for supply chain enhancements to improve market function for key food-related value chains. These opportunities would be based around a list of investments identified in the strategic development/ master plans of Mwanza and Tanga. Further, strong emphasis is to be placed on how these urban food systems can be steered towards climate resilient development pathways.

The Wastewater Management Master Plan for Khulna city was developed in 2016 with support of ADB’s technical assistance. To achieve the target of the Citywide Inclusive Sanitation (CWIS) for Khulna city, IPE Global is now supporting Khulna Water Supply and Sewerage Authority (KWSA) in updation of the existing Waste Water Master Plan by (i) incorporating the ongoing KSSDP components; (ii) preparing the detailed plans on the expansion of sewerage systems to the areas uncovered by the ongoing KSSDP; (iii) identifying effective fecal sludge management and on-site sanitation solutions for the areas not feasible to be connected by sewer networks; (iv) Identifying new areas for a phase-wise expansion of sewerage and sanitation facilities-both for on-site (de-centralised) and centralised sanitation perspectives; (v) Outlining of institutional capacity development plan and resource requirement for KWSA to execute the wastewater/ sludge management system in a sustainable way, and (vi) Preparation of phase wise investment plan as appropriate.

This Program for Result (PforR) aims to support the Government of Himachal Pradesh in strengthening the operational and financial performance of SJPNL Utility and improving access to water supply and sewerage services in Shimla. The program will primarily focus on Shimla Municipal Corporation (SMC) area and will be implemented by SJPNL. The Three Key Result Areas of the Program include:

**Result Area 1:** Improved governance, managerial and financial autonomy

**Result Area 2:** Improved efficiency, financial sustainability, and customer accountability

**Result Area 3:** Improved water supply and sewerage services

As the Program Management Consultant (PMC) under Program for Results (PforR), IPE Global will aid SJPNL in successful delivery around the three result areas by regularly tracking the progress of quarterly targets against the seven Disbursement Linked Indicators (DLIs). IPE Global will also provide comprehensive support in facilitating disbursements from the World Bank.






## ADB II Awareness and Public Participation (CAPP) Consultants for Rajasthan Urban Infrastructure Development Project (2021-2028)

RSTDSP has engaged consultants for coordinating efforts between the executing and implementing agencies as well as public, private, and community stakeholders. The implementation arrangement shall include a CAPP Consultant recruited at project level to assist PMU in management of RSTDSP in meaningful and widespread consultations and public awareness during project implementation. CAPP will have two units i.e. Core Unit based at central office in Jaipur and City Level Units based in 6 major project towns. The CAPP will be required to work/interact with city-level NGOs, civil society organisations, and other stakeholders. The project promotes engaging city-based NGOs, and in case such city-based NGOs are recruited, CAPP will be responsible for coordinating with them and supervising their work.

CAPP Consultants will work for design and implementation of all community awareness and public participation activities, implementation of gender equality and social inclusion (GESI) action plan etc., as well as:

- Design and implement CAPP activities in RSTDSP works
- Create awareness on the project and urban management issues
- Motivate and ensure participation of women in all community activities.
- Motivate the end users to apply for water drainage connections and pay the applicable user charges.
- Coordinate with each project ULB to procure the ward-wise list of BPL households
- Coordinate with Elected Representatives, District Administration, ULBs, Line Departments, NGOs and community to facilitate project implementation and sustainability.
- Conduct baseline surveys for the service delivery, socio economic status, vulnerability, consumer connections, urban service level etc.
- Conduct special campaigns for 100% water and sewerage connection (ensuring inclusion of poor and vulnerable groups), 100% metering & NRW reduction for zero leakage.
- Implement GESI action plan as per approved GESI framework; training on GESI activities.
- Training programs and community-based programs including poverty alleviation plans as required for the target communities.
- Conduct Health and Hygiene Education program
- Design and implementation of extensive media-based project awareness program
- Involve the community, ward committees, educational institutes, CBOs and other relevant organisations in awareness campaign.
- Develop “exit strategy” to be taken over and carried on by local authorities / NGOs.
- Disclose Entitlement Matrix (EM) of the Resettlement Framework (RF) to affected persons (APs).





ADB || Institutional  
Strengthening and Capacity  
Development - Dushanbe  
Water Supply and Sanitation  
Project, Tajikistan  
(2020-2022)

Government of Meghalaya &  
Government of India ||  
Project Management  
Consultant (PDMC) design,  
develop, manage and  
implement Smart City  
projects in Shillong  
(2019-2022)

## TURE

We have been engaged to perform the Institutional Strengthening and Capacity Development for Dushanbe Water Supply and Sanitation Project. The team will be involved in developing and implementing sustainable business model and institutional capacity for improved KPIs and service delivery.

Under the engagement, the team will also support in developing Business model for DVK that will cover technical, operational, institutional organisational restructuring and human resource management; establishing accountability and incentive mechanism with a performance benchmarking matrix; enhancing smart information management system for operational efficiency and seamless integration of customer database, billing, collection, accounting and reporting and operationalising Nonrevenue water management system.

Shillong City is in a highly seismic zone (Zone V) and is prone to frequent earthquake shocks and subsequent hazards. Also, frequent rainfall makes urban living highly vulnerable to climatic impacts such as floods and landslides. The river within Shillong are known to get flooded frequently during heavy monsoons. In addition, poor management of solid and liquid waste, traffic congestion and vehicular pollution, clearance of green areas due to indiscriminate construction, and fossil-fuel energy consumption in city infrastructure contribute to climate change through an increase in GHG emissions and reduction in carbon sinks in urban areas. Various features of urban agglomerations in the state interact with the climate and enhance the vulnerability of the city population.

The Shillong Smart city project is focused on developing Shillong as a liveable, clean, green, inclusive, modern, safe and citizen-friendly and well-governed city. The objective of this assignment is to provide consultancy services to support the Client in planning, designing, implementing and monitoring Shillong smart city projects under the Smart City Mission of India. Area Based Development in Shillong focuses on retrofitting of City Centre, to improve market precincts, transit corridors, public spaces, development of multi-level car parking, Intelligent Traffic Management System and neighborhoods' liveability.

The scope of work broadly includes providing technical and administrative support to plan, design, develop, and monitor smart city projects in Area Based Development projects and Pan City Projects. We are supporting in the overall implementation of Smart City Mission, including project planning, designing, budgeting, implementation, supervision, monitoring and evaluation, reporting and coordination to ensure timely project development and implementation in line with Smart City Proposal and Smart Cities Mission. The process is divided into 5 phases described below:

**Phase 1:** Situation analysis which will include GIS based Base map and ABD Master Plan, Integrated projectivisation and review & re-verification of the integrated modules in the smart city proposal

**Phase 2:** Feasibility Studies which will include Environmental and Social Impact Assessments, Formulation of the work implementation plan, Preliminary procurement plan, etc.

**Phase 3:** Detailed Project Report

**Phase 4:** Procurement Stage

**Phase 5:** Implementation and Construction Supervision Phase





**Government of India Smart City Mission II Project Development and Management Consultant (PDMC) for Smart City projects of Ujjain City, Madhya Pradesh (including Development of MRIDA - Mahakaal Rudrasagar Integrated Development Action Plan under CITIIS) – (2017-2023)**

The objective of this assignment is to provide consultancy services to support the client in planning, designing, implementing, and monitoring smart city projects under the Ujjain smart city proposal. The smart city comprises of an area of 1,023 acres in the old city of Ujjain. The scope of work is broadly divided into two phases: area-based development and ICT-based pan-city solutions, namely - Project Development Phase and Project Implementation and Monitoring Phase.

By conducting a thorough analysis and understanding the city's requirement, we identified Early Bird Projects, which included, water ATM, NRW reduction, smart schools, public bike sharing, Wi-Fi hot spots, and a PoS system for municipal services.

Our Smart City Proposal of Ujjain includes approximately 140 projects and sub projects and the following services:

- Conceptualisation and detail designing of Infrastructure projects
- Secondly among the above ground projects, main project is MRIDA (Mahakaal Rudrasagar Integrated Development Action Plan). This comprise of around 40 Ha of land around Mahakaal temple and proposed project is state of the art facility for pilgrims.
- CITIIS – Phase 2 of MRIDA has been selected for funding under CITIIS program
- Integrated Command and Control Center
- Solar Power Plant on WTP
- Smart Solutions for Public Mobility and Municipal Vehicles
- International Standard Swimming Pool Complex
- Urban Green and Roof Top Lawn
- Public Bike Sharing Scheme
- Bio Methenisation Plant
- Mobile Charging Kiosk for locations such as Mahakaal Temple and Transport nodes
- PR and Branding
- Junction Improvement
- 2.1 km long Cycle track
- Smart Class Rooms



BMGF & ADB || Capacity Building Support for Innovative Sanitation Solutions for Rajasthan Urban Sector Development Program (RUSDP) (2016-2019)

This project aimed to find innovative solutions for pertinent sanitation issues across the value chain during the planning, design, implementation and monitoring process. The work covered conducting pilot studies in various project towns, capturing information for replicable sanitation models, exploring possibility of engaging private service providers, developing conducive institutional framework and undertaking capacity building programs.

We were assisting ADB in providing Capacity Building Support for Innovative Sanitation Solutions in Rajasthan. This program was conceived to include a grant component contributed by Bill and Melinda Gates Foundation, channeled through the RUSDP's existing framework to put focus on non-sewer areas, which lack a centralised sewerage system due to financial or technical unviability.

ADB || Strengthening Institutional Capacity for Project Development and Urban Governance in Tamil Nadu, India (2019-2022)

Tamil Nadu Urban Flagship Investment Program is aimed develop priority water supply, sewerage, and drainage infrastructure in at least 10 cities in strategic industrial corridors in Tamil Nadu. Output 3 of the program focuses on soft components and includes institutional strengthening and governance improvement. Key institutional challenges are (i) weak capacity of ULBs to plan, design and implement projects in a timely, cost effective manner, and to sustainably operate and maintain such facilities; and (ii) the weak capacity of CMA to support ULBs.

IPE Global is supporting GoTN in (a) Strengthening institutional capacity of the Commissionerate of Municipal Administration (CMA) to support urban local bodies prepare, scale up, and manage sustainable and smart urban infrastructure projects in Tamil Nadu; and (b) Strengthening institutional capacity of the CMA to implement urban governance improvement programs.

The World Bank and Madhya Pradesh Urban Development Corporation Limited || Reform Support Consultancy for Madhya Pradesh Urban Development Programme (MPUDP), India (2018-2021)

The project's main goals are to increase revenue for participating urban local bodies and improve coverage for essential urban services in the chosen urban local bodies. The project is running from 2017 to 2022 with a total estimated project cost of USD 166 Million from the World Bank.

The Directorate of Urban Administration and Development, Government of Madhya Pradesh, received strategic policy support from IPE Global as the Reform Support Consultant for a number of financial and governance reforms. The state government has developed notable policies for property taxation, water tariffs, land monetization, credit improvement, procurement, and financial augmentation techniques. 10 ULBs chosen by the World Bank will receive direct assistance in operationalizing policy reforms to enhance municipal performance and service delivery.

Other than institutional development and capacity building of the ULBs across improved taxations, budget adequacy and GIS lead to improved based tax base are delivered for 1500+ government officials.



**GIZ || Consultancy Contract to Provide Support for SWM including C&D Waste and Plastic Waste Management in three Project Cities, India and Baseline of the plastic, non-biodegradable waste monitoring at National, State and City Level, India (2019-2021)**

Approximately 15-20% of all plastics are entering oceans via riverine ecosystems of which 90% are contributed by 10 of the world's most polluting rivers only. The project aimed to streamline data on plastic waste and marine litter and establish a baseline for waste monitoring in India. With this study, the larger 'Cities Combatting Plastic Entering the Marine Environment (CCP-ME) project' focused on marine litter prevention in cities situated in coastal areas, island situations or along rivers.

We were engaged to conduct a study with the goal to strengthen digital monitoring and exchange mechanisms. The team was also engaged in supporting the development of national framework conditions to prevent plastic waste at source through sustainable waste management practices in cities.

**FCO, UK || India Programme - Technical Assistance to better Recover, Recycle, Re-use, Construction & Demolition (C&D) Waste in India (2020)**

We assisted FCO, UK in supporting CPWD, MoHUA, GOI to implement a National Strategy for the management of C&D waste that aimed to improve the applicability and update of C&D waste recycling throughout India.

The purpose of this mandate was to provide Technical Assistance to The CPWD to better recover, recycle / treat and reuse / utilise the construction and demolition (C & D) waste generated in India, by drawing in international best practices, including from the UK, in order to effectively reduce environmental impact in terms of energy consumption, pollution, waste disposal and management.

**The World Bank || Technical Advisory Services for Scaling up Urban Upgrading Project (SUUP), Vietnam (2019-2020)**

The project focused on providing implementation support to seven provincial cities of Vietnam (Bac Lieu, Ben Tre, Long Xuyen, Vinh Long, Tan An, Vi Thanh, Soc Trang) which are in the early stages of urbanisation to adopt green infrastructure principles in design and urban planning, considering adaptability to climate change particularly water-related hazards.

We assisted the World Bank in its long-term engagement in urban upgrading programmes within the Mekong Delta Region (MDR) including Vietnam Urban Upgrading Program (VUUP). Under this project, capacities of cities were strengthened to conceive well-designed upgrading plans that incorporate appropriate resilience measures.

We carried out preparatory tasks for design review, provided advisory services on detailed design for green infrastructure, reviewed city master plan, zoning plan and development regulations, prepared design guidelines, and training manuals on green infrastructure principles.



Founded in 1998, IPE Global is one of the largest South Asia-based development & social sector advisory organisations working across Asia, Africa, and Europe. Headquartered in New Delhi, India with 5 international offices in Bangladesh, Ethiopia, Kenya, Philippines, and United Kingdom, IPE Global has successfully undertaken over 1200 assignments with bilateral & multilateral agencies, governments, and private sector in over 120 countries for partners like USAID, FCDO, World Bank, ADB, JICA, WHO, NITI Aayog, UN agencies, EU etc. and impacted 600 million+ lives globally. The Group offers a range of integrated, innovative, and high-quality consulting services across several sectors and practices like Health, Nutrition, Education & Skills Development, Climate, Urban, Tourism, Social & Economic Empowerment, and Monitoring & Evaluation among others.



#### Office Locations

**National:** Bihar | Himachal Pradesh | Jammu and Kashmir | Karnataka | Kerala | Madhya Pradesh | Meghalaya | Mizoram | Nagaland | Odisha | Rajasthan | Sikkim | Tamil Nadu | Tripura | Uttar Pradesh

**International:** Addis Ababa, Ethiopia | Dhaka, Bangladesh | London, United Kingdom | Manila, Philippines | Nairobi, Kenya

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