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1. Brief information on the project and background

The Ministry of Housing and Urban Affairs (MoHUA) and GIZ India are jointly implementing the "Sustainable Urban Development - Smart Cities" (SUD-SC) project. The project supports the National Ministry and the State Governments (Odisha, Tamil Nadu, and Kerala) in the policy formulation on housing for all, basic services, planning framework, and monitoring of the Sustainable Development Goals (SDGs). It also supports the three select Smart Cities (Bhubaneswar, Coimbatore, and Kochi) in implementing concepts of integrated spatial urban development planning.

2. Context

Cities in India, like their counterparts in the global South, are facing major problems in managing its growth and infrastructure. As a result, improving social and economic conditions for its citizens and promoting sustainable development is increasingly an urban challenge. However, non-availability of city level data, especially those spatial in nature, causes major hinderances during project conception, planning and implementation. Consequently, new and innovative solutions are continually being explored for these cities. Digital information linked to underlying spatial data infrastructures offers significant potential to assist in managing human settlements in developing countries

GIZ SUD-SC project aims at promoting integrated spatial planning by overcoming working in silos of sectoral departments within the three tiers of government (national, state and city). In order to connect the different dimensions of planning, there is an urgent need for digital tool that visualises spatial data from sectoral departments and provides access to such data for cross-sectoral use and understanding.

CityScope

CityScope, developed jointly by the City Science Lab at HafenCity University, Hamburg (HCU) and MIT Media Lab, US, is an interactive, digital tool that helps to analyse urban relationships and enables simulations of development ('what-if') scenarios. City Scope typically consists of a touch table and supplementary info-screen.

With City Scope, multifunctional relationships can be displayed and interacted with to receive fast visual feedback on potential impacts. The tool is particularly suitable for group discussions and participatory workshops in which all key stakeholders, such as government departments, urban professionals, citizens, can participate. The interactive tool, combined with real-time data and custom, open-source applications, fosters openness, transferability and extensibility.

GIZ has previously collaborated with HCU, which will provide the technical know-how and equipment for the CityScope.

In this context, GIZ plans to engage a competent IT firm to provide technical backstopping for the CityScope, and handhold partner organisations to educate and build capacity of its users. GIZ, in collaboration with HCU, shall facilitate these activities in the partner state of Kerala and the city of Kochi.

3. GIZ shall hire an IT firm from **06-2019** until **06-2021**

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4. The IT firm shall provide the following work/services in close coordination with GIZ SUD-SC, HCU, and partners:
- Provide technical backstopping for the deployment of the CityScope device in the partner organisations in the state of Kerala and the city of Kochi, in coordination with HCU, GIZ-India and other partners, to ensure the timely delivery of quality results and achieving the programmatic targets
- Provide strategic advice and technical guidance to the project partners on CityScope.
- Design and develop customised software features and functionality based on HCU open source software and support its implementation.
- Build and integrate custom hardware and peripherals.
- Collaborate through remote communication channels across different time zones.
- Provide trainings and capacity building on CityScope to partner organisations at the state and city level.
- Assist partner organisations in digitising (if needed) to and managing spatial data, compatible with the City Scope format.
- Serve as the interface between GIZ SUD-SC, HCU, and the partner organisations in the state of Kerala and the city of Kochi

a. DESCRIPTION OF THE ASSIGNMENT

The main objectives of the assignment are to provide technical backstopping for the CityScope device, handhold partner organisations, and build the capacity of its users in the state of Kerala and the city of Kochi

Requested services / Qualification

The IT firm should have experience in the following aspects:
- High experience in web development using technologies such as JavaScript, Node.js, Angular and so on.
- Building and integration of customised touch-enabled audio-visual devices and peripherals.
- Projects involving geo-spatial data and GIS, as well as visualising spatial and attribute data within web interfaces.
- Good experience working with government clients; B2A (Business to Administration) and B2C (Business to Customer).
- Experience working with statistical and geo-referenced data.
- Ability to work with clients remotely, and well networked for remote collaborations/ communications, across different time zones.
- Ability to work in an open source context and with commonly used open-source software platforms such as Github.
- At least 3 years of experience in developing similar tools for land use planning / development.

EXPERTS PROFILE

Number of requested experts per category and number of man-days per expert

Sl. No.	Designation of the Expert	Person-days (total for 2 years)
1	Senior IT Expert	300
2	City level IT Expert	360
3	GIS Expert	360

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Profile required for each individual expert (education, experience, references and category as appropriate)—

Sl. No.	Designation of the Expert	Qualification	Professional experience	No of person-days
1	Senior Expert	Masters in Planning / Geography / allied fields from a recognised institute	About 8-10 years of experience in urban planning, spatial planning, land use; good experience in GIS / IT projects; experience working with state planning department; project management; experience in team management.	300
2	IT Expert	Masters / Bachelor's in Computer Science / Computer Applications / from recognised institute	About 5-6 years of work experience in software development using JavaScript, Node.js, Angular; development using open source (desirable); experience of transforming spatial data to different machine-readable formats is desirable. Knowledge of the local language is mandatory.	360
3	GIS Expert	Masters / Bachelor's in Planning / Remote Sensing - GIS / Geography / Environment Science or any other allied subjects from a recognised institute	About 4-5 years of work preferably in public administration (government) on spatial data/GIS/geo-data, survey; experience in requirement analysis and specification. Knowledge of the local language is mandatory.	360

Working language(s): **English and Malayalam**

TECHNICAL PROPOSAL AND EVALUATION

The technical proposals submitted by the firms shall be evaluated based on the technical assessment criteria. The shortlisted firms shall be asked to make a technical presentation (about 30 mins), for evaluation. The presentation should highlight the expertise of the firm, proposed team, prior experiences of working in similar exercises, proposed methodology and work plan for executing the current assignment. The presence of the Senior Expert during the presentation is mandatory.

REPORTING & DELIVERABLES

The IT firm shall be responsible for the tasks as described above (section 4). The firm is expected to cooperate and work closely with the following GIZ India resources, along with the SUD-SC state and city teams:

Responsible GIZ officer for contract GIZ SUD-SC Project Manager, New Delhi	**Mr. Georg Jahnsen**
GIZ SUD-SC Senior Advisor, New Delhi	**Mr. Kiran Rajashekariah**

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Nature / form of deliverables (study, report, financial report, etc.): **Integrated city-level maps, implementation reports, training modules, workshop proceedings, photographs**

Sl. No.	Deliverable	Deadline (after the signing of contract)
1	Inception Report (detailing out the approach and methodology, timeline, project implementation plan, allocation of resources)	4 weeks
2	Interim Report (fine-tuning the approach and methodology, and progress (including highlighting of issues, if any))	8 weeks
4	Final Report	End of project

Format (hard copy, soft copy, CD, photos, etc.): **Soft copies of reports, software, training modules, maps**

LOCATION AND DURATION

Starting period: **Jun 2019**
Foreseen finishing period or duration: **Jun 2021**
Location(s) of assignment: **Kochi city**
Travel sectors: **New Delhi, Kerala, Germany**

b. ADMINISTRATIVE INFORMATION
Other authorized items to foresee under 'Reimbursable'
Tax arrangements
Interim payment(s) modalities
Others

5. Specification of inputs

Fee days	Number of days up to	Comments
• Preparation/debriefing	140	Total number of days for preparing project implementation plan (including technical, resource allocation, timelines) by the team
• Implementation	730	Number of days for project implementation by the team
• Travel days	150	Travel for the team for training, meeting, workshop, etc.
Travel expenses	**Number of days/nights up to**	**Comments**
• Per diem	150	For both national and international travels
• Accommodation allowance	150	
Other travel expenses		**Comments**
• Number of domestic trips	30	
• Number of trips abroad	4	For the Senior Expert and IT Expert
• Ancillary travel expenses (e.g. visa, airport transfers)	34	

Flights	Number of flights up to	Comments
• International flights	4 trips	
• Domestic flights	30 trips	
Other costs		**Comments**
Administrative costs		10% of the total cost