INCEPTION REPORT

Consultancy Services for Operationalizing the Urban Resilience Unit (URU) of RAJUK

URP/RAJUK/S-06

26 November 2018

Consultancy Services for Operationalizing the Urban Resilience Unit (URU) of RAJUK

(URP/RAJUK/S-06)

Inception Report

26 November 2018

Prepared by:

RTI International

Prepared for:

Abdul Latif Helaly

Rajdhani Unnayan Kartripakkha

Contents

Document Version

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Date	16 November 2018
Prepared by	Glenn Whaley, Program Director

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Revision #	Revision Date	Details	Authorized Person
0	26 November 2018	1st Draft	Glenn Whaley, Program Director

Message from Core Management Leadership

RTI International, USA (Research Triangle Institute) is delighted to be implementing the assignment for Operationalizing the URU in RAJUK in Bangladesh. We believe we have the right team, the right experience and the right culture to drive and partner with Rajdhani Unnayan Kartripakkha (RAJUK) as it seeks to sustain and deepen transformation in in Urban Resilience in Dhaka, Bangladesh.

Having managed similar projects in Abu Dhabi, Sri Lanka, India, and Pakistan through an integrated project management system, I am convinced success and outcomes are driven not just through the provision of best-in-class technical expertise but through a program of sustained interactive management. We will continuously confer with stakeholders and the URP Program Director regarding the number, focus, and scope of recommended institutional arrangements.

Our team brings the following competencies to facilitate client's requirements:

- ✓ **Footprint in Bangladesh and across the region:** We understand the region, its culture, business environment, and clients, and have successfully led and worked in all segments of the urban development sector. The Bangladeshi members of the consortium—SDE Ltd., e.Gen Consultants Ltd. and BUET-JIDPUS—have extensive development experience in Bangladesh, and particularly in Dhaka.

- ✓ **Goodwill, Image, and Reputation:** Founded in 1958, RTI is a nonprofit research and technical services firm. For 60 years RTI has provided government and private-sector clients with independent, objective, and scientifically rigorous research, development, and technical services. We deliver high-quality results and work products that our clients can trust.

- ✓ **Institutional Strengthening Areas:** The RTI-led team comprises a combination of expertise in organizational analysis, outreach, and capacity building with working experience in the different parts of the world.

- ✓ **Complete Perspective:** RTI commands a wealth of experience in providing project management support to government agencies in the implementation of their loan-financed projects.

- ✓ **End-to End-Expertise:** RTI's team offers unique end-to-end solutions in sustainable city development Projects.

As the Program Director of RTI for this project, you have the commitment of the firm to provide RAJUK the resources and expertise to effectively and successfully implement the project.

Glenn Whaley
Program Director (RAJUK/URP/S6 Operationalizing the URU in RAJUK)
RTI International, USA (Research Triangle Institute)

November 26, 2018

Abdul Latif Helaly
Project Director and
Superintending Engineer,
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Kartripakhya,
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E-mail: pd@urprajuk.com; helalyrajuk@yahoo.com
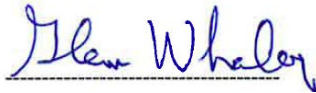
Subject: **Submission of Inception Report for the "Contract No. URP/RAJUK/S-6;
Credit No.: 55990 Consultancy Services for Operationalizing the URU in
RAJUK".**

Dear Mr. Abdul Latif Helaly:

With reference to subject titled contract and our agreed work plan dated 3 October 2018, RTI
International, USA (Research Triangle Institute) is pleased to submit the Inception Report for
the **Operationalizing the URU in RAJUK** project.

We appreciate your acceptance of this report.

Very truly yours,

Glenn Whaley
Program Director (RAJUK/URP/S6 Operationalizing the URU in RAJUK)
RTI International, USA (Research Triangle Institute)

Executive Summary

Bangladesh is one of the world's most vulnerable countries to climate and earthquake hazards and faces significant risks of infrastructure failure. The Capital Development Authority (RAJUK), with the support of the World Bank, is responding to these pressures with several resilience initiatives, including the development of an Urban Resilience Unit (URU) to manage seismic preparedness and resilience for the Dhaka Metropolitan Area.

This inception report outlines the project structure and methodology of the World Bank-financed RAJUK/URP/S6: Consultancy Services for Operationalizing the URU in RAJUK in Bangladesh project.

With this report, we highlight the inception phase activities and outcomes. During an expedited inception phase, RTI held a kick-off meeting with the URP Project Director and his team and facilitated a kick-off workshop with more than 50 participants from RAJUK and its URP team, relevant stakeholders, government agencies, civil society, academia, the private sector, and donor agencies. Additionally, RTI held a series of stakeholder meetings and focus group discussions. Key findings from the inception phase, such as the immediate and sustained need for stakeholder and consultant coordination and training platforms, were noted and incorporated into the project plan.

This report also summarizes our technical approach and methodology, which utilizes four steps within each phase of the project: consult, recommend, verify, and implement. The steps will be applied in each project operation: 1) Institutional Design and Organizational Study, 2) Design, Conduct, and Assess a Community Outreach Campaign, and 3) Training and Capacity Building of URU Staff to help the URU develop improved competencies and a streamlined structure necessary to reduce long-term disaster vulnerability in Dhaka.

The overarching goal of these three phases are to establish a one-stop-shop for research, policies and regulations, Bangladeshi National Building Code (BNBC) enforcement, electronic construction permitting, and accreditations for earthquake engineers.

RTI has engaged a full-time In-country Program Director, Glenn Whaley, to be based in Dhaka for the overall management of the activities and technical experts. The technical content and quality of the deliverables will be ensured by the renowned Team Leader, Dr. Kimiro Meguro for all the major deliverables starting from submission of this inception report through submission the final report in 2021.

1. Project Background, Deliverables, and Team Organization

1.1 Project Objective, Goals, and Outputs

The creation of the RAJUK's Urban Resilience Unit (URU) is a bold and timely initiative for Dhaka and the rapidly expanding urban center of Dhaka. As recent assessments[1] have identified, Dhaka is one of the 20 most seismically vulnerable cities in the world. Seismic assessment and resilience must be incorporated into urban development, authority, and accountability, and leadership is needed to facilitate private investments and consider risk and resilience within development of the Dhaka Metropolitan Area.

After the URU is operational, it will be responsible for assessing disaster risks, responding to and preparing for emergency situations, and certifying buildings, designs, use of materials, and construction permits. This project will support the design and start-up operational functioning of URU through assessment of existing institutional design, development and assessment of community outreach campaign on disaster awareness, and capacity building.

A number of relevant programs and initiatives have addressed disaster risk management in Bangladesh over the past years that will provide valuable learning and coordination opportunities. Notable recent activities include:

- The launch of the Cyclone Preparedness Program (UN, ICRC) that utilizes an early warning system activated by state-of-the-art meteorological radar stations.

- The launch of the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) that sets out 44 programs to be taken by Bangladesh over the short, medium, and long term within six strategic areas, including food security, social protection and health; comprehensive disaster management; infrastructure; research and knowledge management; mitigation and low carbon development; and capacity building and institutional strengthening.

- The publication of the Bangladesh Disaster Management Reference Handbook by the Center for Excellence in Disaster Management and Humanitarian Assistance (2017).

RTI will ensure that this project complements other ongoing program components to help maximize URU's effectiveness and sustainability. In support of the development and capacity building for URU, RTI will build a training platform and outreach program through workshops, multi-stakeholder discussions, and interviews. Anticipated outcomes of the project include the development of urban resilience expertise within URU, an institutional strengthening plan outlining the manpower and technical capacity needed for effective and efficient program implementation, and a powerful training program to build additional expertise as URU and its stakeholders move forward.

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[1] http://blogs.worldbank.org/endpovertyinsouthasia/dhaka-ready-towards-urban-resilience-bangladesh

The Terms of Reference for the project are presented in Annex A.

1.1.1 Key Goals

Specific goals of the project relate to the promotion of public participation and improved governance.

1.1.1.1 Institutional Strengthening and Governance of the URU

- Consensus and in-depth understanding of key governing and strategic documents and resources
- Clear understanding of the hierarchy of responsibility and chain-of-command
- A competent and dedicated coordinating authority that can oversee and prioritize the governance and legal and administrative tasks and activities.

1.1.1.2 Public Participation and Awareness of Disaster Risk Mitigation

- Scientifically vetted public inputs that complement the structure of key strategic resources and institutional governance structures
- Awareness among industrial, commercial, and hospitality-based entities on the key roles and functions they can play before, during, and after an emergency.

1.1.2 Key Activities

Key activities will promote the development of urban resilience competencies, including:

- Vulnerability and risk assessment
- Urbanization and urban resiliency of cities
- Institutional and social resiliency
- Infrastructural resiliency
- Cultural and environmental resiliency
- Management and monitoring training
- Construction standards and permitting

- Building code enforcement
- Construction material testing
- Specialized construction training
- Risk-sensitive land use planning
- Strategic planning and project management training
- Review of regional and international best practices.
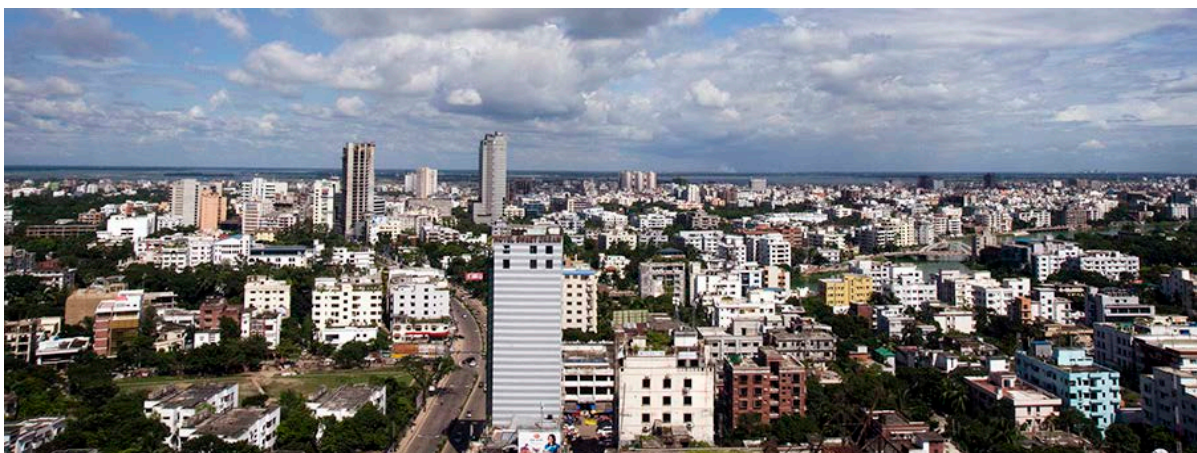
1.1.3 Key Outputs

The project and URU will deliver direct outputs, but additionally serve RAJUK in its ability to mainstream DRM into its operations, functions, planning, policy, and decision making—allowing the unit to realize a number of secondary outputs.

1.1.3.1 Primary Outputs

URU will:

- Have developed standards of construction to promote and mainstream urban resilience
- Have improved overall capabilities in disaster risk management and planning to effectively carry out their revised mandate and sustain all prior and new operations
- Ultimately be absorbed into RAJUK after the project period and be incorporated as the Urban Resilience Division (URD)
- Lead construction permitting and building code enforcement in line with the Bangladesh National Building Code (BNBC).

1.1.3.2 Secondary Outputs

URU will assist in:

- The dissemination, training, and implementation of building construction standards among professionals in the construction industry in line with the BNBC
- The testing of construction materials to improve construction quality and assess structure vulnerability.

Operationalizing URU and building a stronger review and enforcement team can provide a model for other authorities across Bangladesh.

1.2 Team Organization and Key Professionals

RTI is a world-renowned research institution that has more than 60 years of experience in turning knowledge into practice. We have more than 15 years of experience operating in Bangladesh. Our project team includes organizations and individuals with local knowledge and outstanding performance record with previous urban resilience projects.

The RTI Team includes a core team as well as both national and international support staff. The team has been assembled to include advisory, technical, and engagement experts to ensure that URU design, outreach and development is carried out in an inclusive, participatory and efficient manner. Key team members and informants are listed in the following table.

FUNCTIONAL AREA	PROJECT ROLE	TEAM MEMBER
CORE MANAGEMENT TEAM	In-Country Program Director	**Glenn Whaley** 41 years of program management
	Headquarter Program Director	**Keith Weitz** 26 years of program management
	National Program Manager	**Engr. Shafiul Alam** 38 years of program management
	Project Coordinator	**Jennifer Richkus** 17 years of program coordination
KEY TECHNICAL PROFESSIONALS	Team Leader	**Kimiro Meguro** Professor, University of Tokyo
	Project Manager	**H. Kit Miyamoto** Structural Engineer, Miyamoto Intl
	Legal & Institutional Arrangement Expert -1	**Stephen B. Butler**
	Legal & Institutional Arrangement Expert - 2	**Khandker Shamsuddin Mahmood**
	Human & Institutional Capacity Development Expert - 1	**Peter Medway**
	Human & Institutional Capacity Development Expert - 2	**ABM Sayedul Kawnine**
	Knowledge Management & Outreach Expert	**Moloy Chaki**
TECHNICAL ADVISORS	Technical Advisor	**Engr. Emdadul Islam** Ex-Chief Engineer, RAJUK
	Technical Advisor	**Dr. Raquib Ahsan** BUET-JIDPUS

1.3 Project Organizational Chart

1.4 Project Deliverables

Major Project Deliverables	Tentative Deadline
Inception Report	26 November 2018
Situation Analysis and Feasibility Report	3 February 2019
Institutional Design and Organizational Study Report	3 March 2019
Community Outreach Campaign Report	3 August 2019
URU Training Materials and Documentation	3 November 2019
Capacity Building Program Report and URU Staff Training Report	3 June 2020
Monitoring and Evaluation Report	3 January 2021
Final Report	3 March 2021

2. Inception Phase Activities

2.1 Inception Phase Objective

The objective of the inception phase is to specify the methodologies for operationalizing the URU and provide a summary of feedback and inputs from the inception phase activities and events.

Inception Phase Steps

Project Kick-off Meeting

  Review Terms of Reference

  General discussion of steps forward

  Inception outline review

Key Staff and Stakeholder Introductions

  Development of key contact lists

  Discussions of risks and risk management

  Identification of event space

Inception Report Development

  Document collection and management

  Coordination with RAJUK and Coordination Committee

  Draft inception report

By completion of the inception phase, the RTI Team will have gained a clear and in-depth understanding of current conditions to support the situational and feasibility analysis.

2.2 Project Kick-off

To implement the World Bank-financed URP/RAJUK/S-6; Credit No.: 55990 Consultancy Services for Operationalizing the URU in RAJUK project, RTI conducted a kick-off meeting on 30 October 2018 at the URP Project Director's Office at the RAJUK Commercial Cum Car Parking Building, Gulshan-1, Dhaka-1212.

The purpose of this meeting was to introduce each member of the team and discuss the project scope, vision, and objectives in preparation for the inception report. The following RTI Team members were present during the meeting:

Name	Role
Glenn Whaley	In-country Program Director
Keith Weitz	HQ Program Director
Jennifer Richkus	Program Coordinator
Rafi Alam	HR & Institutional Strengthening Expert
Engr. Emdadul Islam	Technical Advisor
Shafiul Alam	National Program Manager

The key outcomes, requests, and action items of the meeting are as follows:

- RTI presented an overview presentation of key staff, anticipated project schedules, deliverables and communication plan, data needs, and recent accomplishments (e.g., stakeholder meeting with Fire Service and Civil Defense, delivery of memos)
    - Mr. Helaly reviewed a list of documents and data that RAJUK will provide to RTI as part of the data collection process
- Contract initiation elements:
    - RTI provided Mr. Mahboob with Letters of Availability for key staff for this project
    - If needed, RTI will schedule a meeting with Mr. Helaly and Mr. Mahboob to discuss any staffing changes anticipated during the project; a no objection letter will be required from CCGB and World Bank to confirm changes
- Upcoming deliverable and project activities:
    - Data collection has been initiated, beginning with the first stakeholder meeting held 29 October with Fire Service and Civil Defense, and will continue through Phase 1 (4 months)
    - RTI is working with Standard Chartered Bank to secure the advanced payment as soon as possible
    - A stakeholder workshop will be held on 01 November 2018
    - The inception report has been drafted and will be submitted in final by 26 November 2018
    - Subcontracting will be completed by the end of November
    - Office space is anticipated to be in place by 30 November 2018, pending RTI security review and approval
- December World Bank Mission
    - A meeting was held immediately following the kick-off with Mr. Mehmet, the World Bank Procurement Specialist. RTI provided a package for RAJUK to present during the December Mission detailing completed kick-off and stakeholder meetings as well as progress with the data collection phase. RAJUK will use the package to present the business case for a project extension.

- RAJUK anticipates a project concept workshop for stakeholders to be held 03-05 December 2018.
  - o Each URP package will have a half-day to present progress and current findings
- Coordination with other URP activities
  - RTI discussed that the team will ensure that operationalizing URU includes coordination with other project activities to optimize URU capacity building and develop consistent documentation, such as job descriptions
  - It was discussed that a training server/center is needed as soon as possible to provide a learning and outreach platform for the URP
- Eng. Emdadul Islam and others provided a historical context of the development of RAJUK and the building review and enforcement program (i.e., evolution from a 13-member board of trust to Dhaka Improvement Trust to 24 authorized officials within RAJUK).

The team also discussed the collection of relevant documents for the project. They also discussed possible stakeholders for meetings, keeping the constraint under consideration that some of the important personnel might not be available due to holiday seasons in December and may not be able to travel in Dhaka due to security concerns for the upcoming election in December.

2.3 Team Mobilization

The final contract for the consulting services was signed on 3 October 2018 and to respect the client's request to expedite the kick-off meeting and team mobilization, the RTI Team engaged the Core Management Team members related to this project immediately after contract signing.

We understand the importance of engaging all the key professionals and have started finalizing the consulting agreements and subcontracting agreements with the key professionals and the partner organizations. We expect to finalize the process by 30 November 2018.

For efficient management of the team of renowned key professionals from various parts of the world and make the best use of their time and input, RTI will engage them right away, deploying them as per the requirements of the relevant activities stated in the project methodology (Section 3) and work plan (Section 5).

The following team members were mobilized on the following dates to carry out the inception phase of the project:

Name	Role	Date
Glenn Whaley	In-country Program Director	28 October 2018
Keith Weitz	HQ Program Director	28 October 2018
Jennifer Richkus	Program Coordinator	30 October 2018
Rafi Alam	HR & Institutional Strengthening Expert	25 October 2018
Engr. Emdadul Islam	Technical Advisor	30 October 2018
Shafiul Alam	National Program Manager	30 October 2018

The Team Leader, Dr. Kimiro Meguro, has confirmed his agreement in reviewing the relevant project documents and setting up strategic guidance for the project.

The International Project Manager, Dr. Kit Miyamoto, will mobilize in Dhaka on 1 December 2018.

The National Legal & Institutional Arrangement Expert, Khandker Shamsuddin Mahmood, and the National Human & Institutional Capacity Development Expert, ABM Sayedul Kawnine, will mobilize on 1 December 2018.

We are now working on understanding the appropriate time for mobilizing the International Human & Institutional Capacity Development Expert, Peter Medway, and the International Legal & Institutional Arrangement Expert, Stephen B. Butler.

2.4 Data Collection and Literature Review

This project will require significant data collection and literature review. Literature review will help establish a clear and in-depth understanding of the current situation, ensure that the project addresses the key needs of RAJUK and relevant stakeholders, and align the unit with other relevant agencies, programs, and initiatives. This data will also be foundational for the situational analysis and feasibility report that we conduct under the project.

The RTI Team has started gathering the following specific documents as part of the inception process and will reference throughout Operation 1, including:

- **Regulatory and Policy Documents**
  - Bangladesh National Building Code, 2015, and draft BNBC
  - Building Construction Act 1952
  - Building Construction Rules 2008
  - Town Improvement Act 1953
  - National Environmental Policy 1992
  - The Environmental Court Act 2000
  - Standing Orders on Disaster 2010
  - Disaster Management Policy
  - Disaster Management Act 2012
  - Greater Dhaka Structure Plan
  - Updated Detailed Area Plan
  - Risk-Sensitive Land Use Plan
  - Strategic Transportation Plan
  - Civil Aviation Height Restriction Plan
  - Comprehensive Disaster Management Program Risk Assessment
  - Permitting regulations
  - Emergency safety plans

- Environmental legislation
- Permit application template
- Permit approval process guidance documents
- Large and special project permitting guidance
- Construction inspection guidance
- Key point installation instruments
- Any laws related to planning and construction
- Any laws or policies related to data security and electronic information signatures

- **Master Plan Resources**
  - Comprehensive Disaster Management Program (Phase 2), 2010
  - Greater Dhaka Approved Master Plan
  - National Environmental Management Plan, 1995
  - Bangladesh Delta Plan 2100
  - Sixth Five Year Plan FY2011-FY2015 Accelerating Growth and Reducing Poverty

- **Strategic Directions and Policy Framework**
  - Vision 2021
  - National Plan for Disaster Management 2014–2015, 2010
  - National Plan for Disaster Management 2016–2020, 2017
  - Bangladesh Climate Change Strategy and Action Plan (BCCSAP), 2017

- **Organizational Plans and Documents**
  - Training, knowledge, and learning resources that demonstrate URU's methods and capacity to identify and learn from past opportunities and challenges
  - Current and proposed administrative and staffing organograms of URU, including the staffing plans, job descriptions, and CVs of current and proposed RAJUK / URU staff
  - Administrative procedures of the current and proposed RAJUK / URU structure, including in respect to Building Construction Committees, the National Committee for Urban Development, and Special Project Committees

– Workflows, handbooks, manuals, charts, and reporting structure of RAJUK staff, including those that outline the composition, mandates, and roles of various URU committees

– Legal, administrative, and organizational structure of URU and the detailed definition of its mandate and activities within RAJUK's own institutional mandate and those of related public institutions. This may include:

  o RAJUK organogram

  o RAJUK staffing structure and staff position descriptions

  o RAJUK staff roster / contact database

  o Financial records (2010–2018)

  o Any briefs, guidance, and resources on disaster risk planning

  o General staff handbook

  o RAJUK's monitoring and evaluation strategy

  o RAJUK's governance structure for internal legal operations

  o RAJUK policy on clearance certification

  o RAJUK GIS and information technology policies

- **Relevant Scholarship and Program Reports**

  – EMI, Training and Capacity Building Action Plan. Bangladesh Urban Earthquake Project, 2014

  – UN-ESCAPE, Mainstreaming Disaster Risk Reduction for Sustainable Development. A Guidebook for the Asia-Pacific, 2017

  – Ministry of Environment and Forests, Climate Change and Disaster Management in Bangladesh

  – SDC, Disaster Risk Reduction Program for Bangladesh 2010– 2012, 2010

  – Center for Excellence in Disaster Management and Humanitarian Assistance, Bangladesh Disaster Management Reference Handbook, 2017

- **IT, Security, and Access Requests**

  – Electronic access to RAJUK ethernet / staff & administrator portal

  – Physical access to RAJUK library

  – Electronic or physical access to RAJUK financial data

  – Inventory of RAJUK's hardware assets

  – Inventory of RAJUK's software assets

- **Maps and Relevant Data Sources**

  – Municipal infrastructure (SHP)

  – Municipal flood hazard (SHP)

  – Municipal vulnerability (SHP)

  – Municipal zoning (SHP)

  – Land use (SHP)

  – Municipal seismic map

  – Table of seismic intensity

- Table of block-wise seismic risk
- Municipal road (SHP)
- Urban transportation network (SHP)
- Administrative boundaries (SHP)
- Watershed boundaries (SHP)
- High wind hazard (SHP)
- Flood and drought projections and historical boundaries (SHP)
- Earthquake vulnerability tables and maps
- Groundwater (SHP)
- Important historical heritage sites (SHP)

- **Technical Process-Related Requests**
  - Lists of commonly used references and programs for permitting review and inspections
  - Lists of monitoring and field equipment tools available for inspections
  - RAJUK database of relevant local institutions working in urban resilience (e.g. BUET-JIDPUS)

2.5 Identification of Relevant Stakeholders

The RTI Team discussed with the URP Project Director, Mr. Helaly, the relevant stakeholders for this project and has identified the following list of relevant stakeholders:

- RAJUK
- RAJUK, URP Team
- Ministry of Public Works & Housing
- Department Head, Geography & Environment, Dhaka University
- Planning Commission
- BUET-JIDPUS
- Dhaka North City Corporation (DNCC)
- Dhaka South City Corporation (DSCC)
- Urban Development Directorate (UDD)
- Housing and Building Research Institute (HBRI)
- BUET Civil Department
- BUET Architecture Department
- BUET CSE Department
- The Japan International Cooperation Agency (JICA)

- Civil Aviation Authority (CAA)
- Fire Service and Civil Defense (FSCD)
- Department of Environment (DOE)
- Institute of Engineers Bangladesh (IEB)
- DESA
- WASA
- TITAS Gas
- DMP Traffic
- Bangladesh Meteorological Department
- DDM
- Dhaka Power Distribution Company (DESCO)
- The World Bank Group

2.6 Identification of Key Informants

During the inception phase, the following individuals were identified as key informants for this project:

Name	Title
Eng. Emdadul Islam	Ex-Chief Engineer, RAJUK
Dr. Mehedi Ahmed Ansary	Professor, Civil Engineering Department, BUET
Dr Raquib Ahsan	BUET-JIDUS
Dr. Jamilur Reza Choudhury	Vice Chancellor of University of Asia Pacific
Prof. A.M.M. Safiullah	Vice Chancellor of Ahsanullah University of Science & Technology (AUST)

2.7 Workshops

The following workshops have already been held in Dhaka during the inception phase:

- **Kick-off:** The kick-off meeting and workshop with URP team members was held in the URP Project Director's office on 30 October 2018.

- **Inception Stakeholder Workshop:** An inception stakeholder workshop comprising team members from the RAJUK URP team and relevant stakeholders from government agencies, civil society, academia, and the private sector was held in the Gulshan Spectra Convention Center on 01 November 2018.
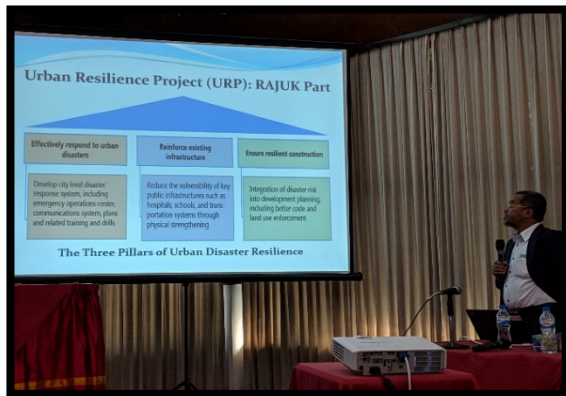
- **Focus Group Discussion with URP Team:** RTI Program Coordinator, Jennifer Richkus held a focus group discussion with the URP team members in the URP Project Director's Office to understand each of the current member's roles and responsibilities on 05 November 2018. She also collected information about the challenges and opportunities of the URU staffs in the daily operations.

2.8 Stakeholder Meetings and Focus Group Discussions

During the inception phase, the following meetings have been held with various groups of relevant stakeholders. We are continuing to hold stakeholder meetings and focus group discussions beyond the inception phase, as we could not obtain availability from all of the stakeholders identified in Section 2.5.

- **Meeting with Brigadier General Ali Ahmed Khan, Director General, Fire Service and Civil Defense (FSCD), 29 October 2018**

During the meeting, we discussed the role of FSCD in ensuring the safety of the population in Dhaka city. Also, we discussed their challenges in terms of access to buildings after a major incident. The role in construction permitting pre-approval was also discussed.

- **Meeting with Dr. Raquib Ahsan, Director, BUET-JIDPUS, 31 October 2018**

During the meeting with BUET-JIDPUS, we learned about their extensive work in urban resiliency and disaster risk mitigation (DRM)-related research, their laboratory facilities including their Earthquake Engineering Laboratory, Geotechnical & Geophysical Testing Laboratory, Computational & Simulation Laboratory and Non-Destructive Testing Laboratory, and their outreach programs, and training capacity. We believe that involvement and collaboration with BUET-JIDPUS will be vital to this project.

- **Meeting with Dr. Ahsanul Kabir, Head, Department of Civil Engineering, BUET, 31 October 2018**

This meeting was very fruitful as we discussed our role assisting RAJUK for operationalizing the URU with the head and discussed a list of information that is required to understand the role of the department in educating and training civil and structural engineers for RAJUK. We realized that it was very important to understand the relationship among the different faculties under the department, such as civil engineering, structural engineering, and geotechnical engineering, and with RAJUK.

- **Meeting with Dr. Nasreen Hossain, Head, Department of Architecture, BUET, 31 October 2018**

At this meeting, key members of the RTI Team introduced themselves to Dr. Nasreen Hossain and her team, and then described RTI's role in helping RAJUK in realigning the URU. After that, we brainstormed various ideas of future responsibilities and scope for URU, such as vulnerability assessment of urban poor and designing projects to ensure safety of that group.

- **Meeting with Mr. Aminur Rahman, Deputy Project Director, Urban Resilience Project, 05 November 2018**

This was a very helpful meeting as Mr. Aminur Rahman walked us through the details of the zoning and construction permitting process of RAJUK. He also described the current role of URU in managing construction approvals. We believe we can incorporate a lot of the discussion points into our next activity.

Following the meeting with Mr. Aminur Rahman, we also received some vital documents outlining the process of the current construction permit system.

- **Meeting with Mr. Takumi Tsuchiya, Representative (Disaster Risk Reduction) & Mr. Anisuzzaman Chowdhury, Program Officer, JICA Bangladesh Office, 05 November 2018**

This meeting was very fruitful as we learned about JICA's role in creating urban resiliency in Dhaka city through their various projects. They presented some data and information about structural difficulties in Dhaka city by each zone. They are also interested in providing technical assistance to RAJUK in institutional strengthening and capacity building. We also learned about the summary of buildings inspected by RAJUK during July 2018 and learned about that on average, more than 75% of buildings deviated from the approved plans. This information helps us understand the challenge of URU in BNBC code enforcement.

- **Meeting with Miah Rahmat Ali, Senior Private Sector Specialist, IFC – World Bank, Dhaka, 7 November 2018**

During this meeting, we discussed the earlier study by the Trade & Competitiveness (T&C) team of the World Bank Group. The IFC team attempted to restructure the construction permit process and the responsibility of RAJUK during 2009–2012. We also discussed the mapping exercise that detailed all the as-is related processes and proposed the to-be ones. The automated workflow management system of land use and construction permit processes were then developed based on the approved to-be processes.

- **Meeting with Brig. Gen. Jubayer Salehin, Chief Engineer, Dhaka North City Corporation, 13 November 2018**

During the meeting with Brig. Gen. Jubayer Salehin, we described our project to help RAJUK operationalize the URU and discussed the challenges and opportunities for DNCC to collaborate with URU in terms of providing construction approvals. He expressed his willingness to work with the RTI Team to provide input in conducting strengths, weaknesses, opportunities, and threats (SWOT) analysis.

2.9 Project Office and Acquisition of Equipment

During the inception phase, RTI has conducted a thorough visit and inspection of 20 potential office spaces near the client's office in Gulshan, Dhaka, and has identified a possible office location for this assignment at **Taj Casilina, Flat 5/C, SW (I) -4, 25 Gulshan Avenue, Gulshan-1, Dhaka-1212, Bangladesh**.

This office is fully furnished with modern furniture, electronic devices, and air-conditioning system, and is ready for consultants to occupy the space. RTI is now in the process of finalizing the lease agreement with the concerned authority and is hopeful of completing the process by 30 November 2018.

For ensuring the security of the team members, this office has a CCTV camera system, facial recognition system, finger print recognition system, and card swiping system.

As this office is fully furnished and includes necessary equipment (printer, scanner, generator, etc.), we do not foresee any need to make major purchases or acquire equipment at this stage.

We believe that this office location will help both RTI Team members and URU staff collaborate and exchange information faster and in efficient manner.

2.10   Summary of Inception Phase Outcomes

Based on the kick-off meeting, stakeholder workshop, and other inception phase meetings held to date it is evident that the key components of this project are substantial coordination among other Urban Resilience Project contractors, RAJUK, URU, and relevant stakeholders and improved guidance and training in areas relevant to the URU team's mission. Key comments obtained during the inception phase included:

- Architects are generally only involved with construction up to the drawing phase and then hand the construction over to construction staff with limited knowledge about building resilience.
    - It is unclear whether issues with building resilience could be identified under this current process. RAJUK should play this role to ensure buildings have followed the architectural designs and met resilience criteria.
    - The involvement of BUET-JIDPUS, the architectural community including the Institute of Architects Bangladesh (IAB), and the Institute of Engineers Bangladesh (IEB) provides a stronger understanding of Dhaka infrastructure and existing in-country knowledge on structural resilience.
- URU being a new entity has limited coordination with other government agencies and observe that the roles and responsibilities of each agency are not clearly defined.
    - A clearly defined, written process guide for the evaluation and permitting of resilient structures by all relevant stakeholders is needed.
- Technical subject matter expertise and IT technical capacity must be increased within RAJUK and with external stakeholders.
    - Minimum technical qualifications are needed for inspectors and additional members of the RAJUK team.
    - URU staff have strong technical backgrounds but will require additional training on disaster risk management and instrumentation.
    - Increased technical capabilities and use of software systems within the Dhaka government is needed. Simultaneous capacity building of other agencies is critical.

2.10.1 Needs from RAJUK, Stakeholders, and Other URP Components

- RAJUK
    - Access to key documents (e.g., building codes, laws, regulations) and data, as listed in Section 2.4
    - Access to staff involved in permit approvals processes
- Stakeholders
    - Access to key documents and data
    - Access to staff involved in permit pre-approval processes
- Other Urban Resilience Project (URP) activities
    - Building code updates.

2.11   Acknowledgements

The RTI Team gratefully acknowledges the cooperation and assistance of RAJUK URP management, officers, and staff in providing necessary information and support resources and facilitating the initial meetings and discussions during the mobilization of the consultant. The team also acknowledges the support of the local institutions such as BUET, sub-contractor SDE Consultants Ltd., and their team members to provide with much needed cooperation and guidance.

3. Technical Approach and Methodology

Following the inception phase activities, the RTI Team has reviewed the technical approach and methodology prepared during the RFP stage and submitted with the technical proposal, and adjusted its overall approach and methodology based on the current situation. RTI realizes that the technical approach and methodology of the project activities will evolve with changes in the state and the client's expectations.

During the inception phase, the RTI Team did not find major changes to the overall objective and vision of the Operationalization of URU in RAJUK project from the RFP stage; therefore, we feel confident in sticking to the technical approach and methodology we prepared during the RFP stage. The RTI Team will continue to work with the client and other relevant stakeholders to assess the current state and expectations and will reflect any changes to the technical approach and methodology, as necessary.

RTI is pleased to pursue a customized approach that draws upon our extensive experience in the fields of urban resilience and strengthening institutional capacity with our specific understanding of the Bangladeshi environment and natural risks. Our approach is based on four fundamental pillars:

- **Promote URU Ownership through Participation and Consultation**

  We will design and implement all project activities in a highly participatory and consultative manner, placing RAJUK/URU at the forefront to ensure that key outputs are sustainable after the close of the program. Our recommendations will be based on the desires and priorities of RAJUK and the URU, as well as best practices. We recognize that for the project to be successful, RAJUK and the URU must buy into the activities and fully own them. We will not complete activities for RAJUK/URU, but alongside them.

- **Leverage Local Knowledge and Expertise**

  Wherever possible, we will leverage local expertise so that we can draw upon those who are most familiar with the context in Bangladesh. Bringing in local experts will enable us to design and deliver sustainable solutions that are most appropriate for the URU. Moreover, it will connect URU to these experts so that they can develop long-term relationships and help sustain URU beyond the life of this project.

- **Rigorously Measure Results**

  As a global research institution, measuring results is foundational to RTI's work. Prior to building the capacity of the URU and conducting an outreach campaign, we will conduct a baseline assessment and develop robust indicators in which to continuously monitor results. As we measure outcomes, we will adapt our approaches, as necessary, to optimize impact and increase sustainability.

- **Ensure Sustainable Results**

  We understand that the success of our efforts to build URU's capacity is ultimately determined by their ability to be a sustainable entity. This means that URU must not only be fully institutionalized within RAJUK, but also be able to generate revenue to continue its services and achieve its organizational goals of promoting awareness on how to mitigate disasters. Although we will not be able to measure this beyond the life of the project, everything we do will be done with the aim of sustainability.

Our approach to operationalizing URU will help them develop improved competencies and a streamlined structure necessary to reduce long-term disaster vulnerability in Dhaka. The key output will support the institutionalization of the organization within RAJUK, mainstreaming DRM, and improve urban resilience in Dhaka.

We will employ a comprehensive and tailored methodology that will significantly strengthen the capacity, effectiveness, and sustainability of the URU. Our methodology centers around staging interventions so that the URU is not a mere participant in activities, but a key decision maker and driver of results.

To execute our methodology, we will sequence our activities so that we *consult* RAJUK/URU on their goals and needs, *recommend* specific actions for their consideration based off of best practices and our analysis of the URU and Bangladesh context, *verify* their consensus on activities and goals after they have had time to reflect upon our suggestions, and then *implement* recommendations alongside the URU. The graphic below illustrates the steps in our methodology and timeline. Within each step, we will apply the four pillars of our approach of promoting URU ownership, leveraging local knowledge, measuring results, and ensuring sustainability.
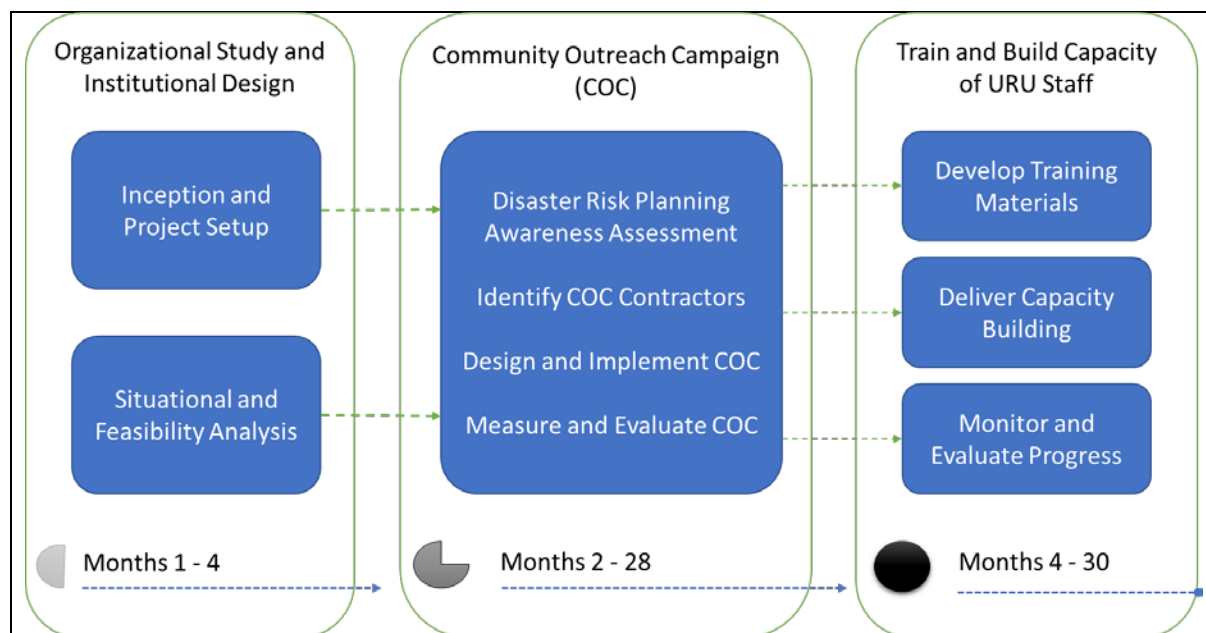
Steps in Methodology and Timeline for the Assignment

A series of workshops, interim reports, multi-stakeholder discussions, and interviews will ensure that key operations and activities that we conduct under this project (described later in this section) will carefully consider all inputs and effectively communicate all key milestones reached. Our wider understanding of the URP will help us complement other program components that the World Bank is supporting and synchronize these efforts to help maximize URU's effectiveness and sustainability.

We will apply our methodology by staging the activities in each operation as follows:

- **Operation 1—Institutional Design and Organizational Study**

  We will first *consult* URU through a series of intensive discussions about their organizational structure, strategy, capacity, partnerships, and context (including opportunities and challenges). In addition, we will conduct a comprehensive review of key organizational documents.

  Simultaneous to our consultations, we will research DRM best practices and examine institutions that offer lessons learned and alternative models for URU. We will then make preliminary *recommendations* to the URU in a draft situational analysis and feasibility report.

  Our report will include recommendations for revising URU's organogram, capacity-building activity topics and activities to undertake, and hardware to procure for URU's laboratory, among other activities. We will *verify* URU's desire to implement these recommendations through a participatory assessment where staff will create consensus on their capacity-building priorities, organizational structure, and delivery of services. We will assist URU in *implementing* these recommendations during Operation 3.

- **Operation 2—Design, Conduct, and Assess a Community Outreach Campaign**

  We will identify local institutions to launch and implement a community outreach campaign to raise awareness around disaster risk planning. Upon identifying qualified local institutions, RTI will support RAJUK and the selected community outreach contractor to conduct a rapid assessment to identify the key knowledge gaps among various audiences including the public, industrial and commercial actors, and educational institutions and schools.

  Knowledge gaps will inform our team and partners of the wider curriculum and the key messages and media (print, audio visual, social media) that can be tailored and disseminated to respective audiences. Lastly, we will help RAJUK develop the monitoring and evaluation tools to equip outreach campaign partners with the necessary tools to measure the success of disseminated knowledge and media.

- **Operation 3—Training and Capacity Building of URU Staff**

  We will launch a training plan for enhancing the capacity of the newly formed URU. RTI will utilize a blended approach to build the capacity of URU staff, carefully selecting and tailoring capacity-building topics and materials to the local context as well as the institutional and knowledge gaps identified throughout Operations 1 and 2.

  During Operation 3, we will incorporate a mix of in-person training (from a wide range of subject matter experts), coaching and mentoring, online learning, and peer learning from local institutions present in Bangladesh.

Our work plan offers URU and World Bank a rigorous plan for producing rapid results. We will conduct Operation 1 over the first four months of the project so that we can establish a solid base in which to engage the URU and achieve consensus on activities that we will undertake in Operation 3.

Starting in Month 2, we will begin Operation 2 and conduct a baseline assessment of disaster awareness among key target audiences. We will continue to tailor the campaign messages and boost awareness through Month 28 when we assess the success of our efforts. In Month 3, we will begin Operation 3 as we confirm the experts that will develop training material for the URU. We will create

and deliver capacity-building assistance to URU through the duration of the project, positioning URU to lead and deliver high-quality DRM services that will improve urban resilience in the Dhaka area.

3.1 OPERATION 1: Institutional Design and Organizational Study

The institutional design and organizational study that we will conduct through Operation 1 will establish the foundation for this project. We will stage our activities so that we consult with URU about their goals, structure, capacity, and current needs, and explore the opportunities and challenges with their stakeholders.

Following our initial kick-off meeting and inception report, we will conduct a situational and feasibility analysis that will outline the state of URU's current structure, activities, and skills and will also take into consideration best practices in DRM and lessons learned from leading institutions in the region and internationally.

Our situational and feasibility analysis will form the basis for a report, that will outline the state of RAJUK's activities, how the external environment impacts its operations, and opportunities that RAJUK may be able to capitalize upon.

During a comprehensive and participatory institutional assessment, RAJUK and proposed URU staff will assess their own performance and create goals that will confirm which of these recommendations they will adopt. They will create a detailed institutional strengthening plan and we will finalize the situational analysis and feasibility report. The graphic below illustrates timing of these activities during the first four months of the project:
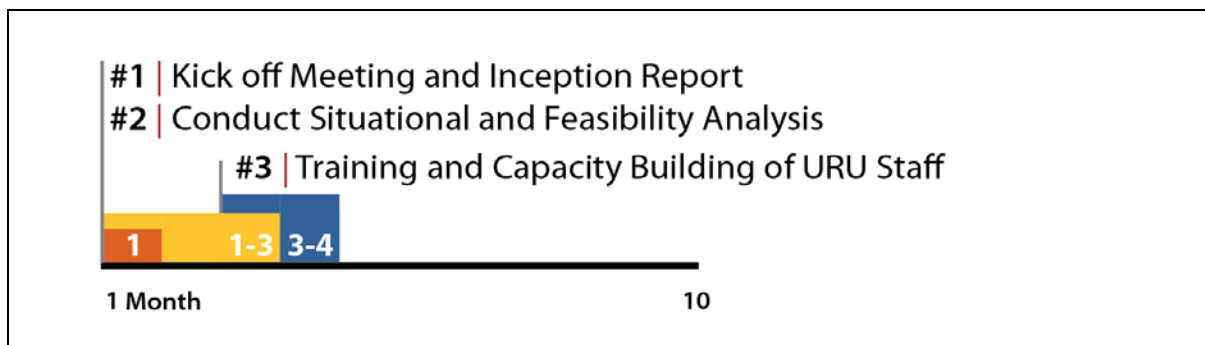
3.1.1 Activity 1—Kick-Off Meeting and Inception Report

To establish a solid rapport with RAJUK/URU staff, the inception of the project will be critical to our success. Within 30 days of signing the contract, we have held a project kick-off meeting with RAJUK/URU staff to get acquainted with personnel and their roles, learn about URU, and establish communication protocols among team members. During this time, we have also introduced the RTI Team, our capabilities, and our roles. The details of actual inception phase activities have been included in Section 2 of this report.

This inception report is part of this activity to document how we will further craft project implementation, validate results, and sustain URU in the long term. This report will establish the foundation for our work with URU and create mutual expectations on how we will collaborate.

Proposed and Completed Milestones: Operation 1, Activity #1

1) Kick-off workshop (30 October 2018)

2) Inception report (26 November 2018)

3.1.2 Activity 2—Conduct Situational and Feasibility Analysis by Examining Key Organizational Documents and Interviewing URU Staff

Immediately after the project kick-off meeting, our team began the process of deepening our understanding of the URU context and assessing their institutional feasibility. We are using a tiered participatory process that will fully engage RAJUK/URU staff and enable them to begin reflecting on areas for change and improvement. The steps below outline how we will conduct the situational analysis, which will provide important context for conducting the participatory institutional assessment with URU staff in Month 4 (see Operation 1, Activity 4).

Step 1: Collect and Analyze Key URU Documents

In Month 1, we will gather and review a wide range of documents from RAJUK to examine URU's current proposed organograms, legal mandates, staffing composition, workflows, levels of oversight, and available resources that define disaster risk and urban resilience planning. Documents that we will request to analyze are listed in Section 2.4.

After reviewing these documents, we will draft detailed notes to map resources and potential challenges and opportunities. In addition, we will craft specific questions for URU staff that will help us determine staff perceptions, capacities, levels of collaboration, support, and direction. These nuances are critical to a successful team dynamic and will only become apparent through individual staff conversations.

Step 2: Meet Individually with a Wide Range of URU Staff

After we have finalized our review of documents, we will schedule one-on-one meetings with key URU staff to learn about their work, capacities, and perceptions. Target staff for individual meetings will include heads of departments and other key managers but could also involve a wide range of other URU staff. These meetings will better inform the team about intra- and inter-office dynamics, staff comprehension of roles and performance metrics, and desired skills that can better assist staff in their duties.

Step 3: Review Implementation Guidance and Key Considerations from BNBC

Following our review and direct contact with URU resources and staff, the RTI Team will conduct a thorough review of the BNBC, as well as applicable accreditation and code enforcement provisions, and other building construction standards to extract the key guidance and considerations from this document that can complement the establishment of the URU at RAJUK.

The BNBC is expected to particularly inform and guide permitting, materials testing, and stakeholder engagement and coordination responsibilities that are adopted by the URU. The design and drafting of key resourcing and training plans for the URU will also be greatly complemented by this review.

Step 4: Meet Individually with Relevant External Stakeholders.

RAJUK reports that it often requires clearance certification for building permits and urban resilience management activities from a wide range of external stakeholders, including the Department of Environment, Dhaka Electric Supply Authority, Water Supply and Sewage Authority, TITAS Gas Transmission and Distribution Company, Dhaka Metropolitan Police, Dhaka City Corporation, and the Civil Aviation Authority Bangladesh. We have begun to conduct individual meetings with key RAJUK counterparts and contacts at each institution and government body to determine how the new URU can tailor and streamline more efficient operations. These meetings are designed to be feedback and information gathering sessions, and methodological reviews.

Key findings and recommendations identified to date as a result of these meetings and workshops include:

- Technical capacity for RAJUK and relevant stakeholders must be increased with respect to urban resilience and information technology
- Coordination among internal and external stakeholders is critical during design and implementation
- A universal training platform for all relevant stakeholders is needed
- Outreach mechanisms, laboratories, quality control, and instrumentation facilities are also needed to build URU capacity
- Disaster risk planning activities to be conducted and/or coordinated by URU need to be standardized
- Training and training materials on construction permitting and building code enforcement with respect to DRM are required
- Awareness and outreach campaigns for DRM need coordination.

Step 5: Prepare Situational Analysis and Feasibility Report

Following our review of the current status of URU's administrative body through our review of the initial organizational chart and other key documents as well as meetings with URU staff and stakeholders, we will draft a detailed preliminary situational analysis and feasibility report. Our report will consider best practices in DRM and draw from lessons learned from institutions similar to the URU (see Activity 3). It will provide recommendations on restructuring the URU so that it can streamline its functions, optimize skills and resources, and best achieve its goal in supporting urban resiliency in Bangladesh. The anticipated elements of the report include:

- Profile of resources, challenges, and opportunities related to urban resiliency in Bangladesh
  - Institutional organogram
  - Baseline data and context of URU
  - Roles and requirements of each URU division/department
  - Intra- and inter-office engagement and communication mechanisms
  - RAJUK's internal capacity to vet and validate the accuracy and applicability of contributions, criticism, and recommendations from internal and external stakeholders
  - Operational procedures to ensure quality control and performance criteria
- Best practices in DRM

- Lessons learned from institutions similar to URU
- Mapped work flow and resource diagrams
- Educational levels and training
- Draft of identified resource gaps, challenges, and opportunities
- Recommendations
  - Skills and resource optimization recommendations for URU
  - Manpower requirements and projections
  - Hardware and software requirements to achieve goals
  - Financing mechanisms to sustain URU activities
- Indicative budgets for all proposed activities and developments
- Revenue strategies for financially sustainable URU services
  - Collaboration with external stakeholders to improve urban resilience in Bangladesh
- Proposed metrics for program evaluation
  - Workload (e.g., number of permits approved and inspections conducted on a monthly/annual basis, number of special and large projects reviewed)
  - Sustainability (e.g., workforce turnover, number of refresher and introductory trainings conducted, complaints received, positive feedback received)
  - Compliance (e.g., number of rejected and resubmitted permits, number of inspection violations)
- Legal Analysis and Recommendations
  - Evaluation of system constraints and limitations under current legal framework
  - Recommended updates
- Data security and management strategy.

The situational analysis and feasibility report will also provide detailed recommendations on how URU can better support the BNBC, consult and collaborate with external stakeholders, and address general challenges to best achieve its institutional goals. Paramount to this analysis will be a consideration of how the URU can generate revenue to sustain its services.

Any questions or comments on the draft version of the report that are submitted to RTI will be addressed and compiled as a response to comments document. Responses to the questions or comments will be submitted by RTI to RAJUK within two weeks of receipt along with any necessary revisions to the Assessment Report. A final version of the report will be submitted as the Task 2 report deliverable and milestone payment. RTI will also provide minutes from meetings, response to comments documents, and presentations as part of the data and documents collection.

Key considerations and recommendations featured in the report will provide a useful framework for URU's consideration and will help us to better tailor the participatory institutional assessment that we will facilitate in Month 3 (see Activity 4). After the assessment, URU will determine which recommendations to adopt. These recommendations will be reflected in the institutional design and organizational study report as part of Activity 4.

Proposed Milestones: Operation 1, Activity #2
1) Situational Analysis and Feasibility Report (Month 3)

2) Revised URU Organogram (Month 3)

3.1.3 Activity 3—Conduct Research on Best Practices/Similar Institutions in Developing Countries

Simultaneous to our review of key URU documents, we will research institutions in Bangladesh and other countries that are similar to URU and that can serve as a model. During the first weeks of implementation, we will identify a range of institutions that promote urban resiliency, specifically targeting those that focus on earthquake mitigation, provide construction permits, and enforce building code requirements. We will conduct our research using a tiered process, focusing more intensively on those that are the most similar to URU in terms of their role, structure, and context. We propose the following stages for conducting this research:

Step 1: Screen Institutions and Map Institutional Profiles

Our initial screen of institutions similar to URU will involve both Internet research and recommendations from relevant stakeholders that are known to the project team, such as BUET-JIDPUS. During this preliminary review, we will create basic institutional profiles and map institutional characteristics and functions.

We have already identified a number of international, national, and district governmental and nongovernmental institutions that we propose meeting with so that we can record and learn from best practices. These stakeholders are listed below.

International Stakeholders
New York City Office of Resilience and Recovery
Sri Lanka Urban Resilience Hubs (UN-HABITAT)
International Committee of the Red Cross (ICRC)

National Stakeholders
National Disaster Management Council (NDMC)
Inter-Ministerial Disaster Management Co-ordination Committee (IMDMCC)
National Disaster Management Advisory Committee (NDMAC),
National Platform for Disaster Risk Reduction (NPDRR),
Earthquake Preparedness and Awareness Committee (EPAC),
Cyclone Preparedness Program Implementation Board (CPPIB),
Disaster Management Training and Public Awareness Building Task Force (DMTATF)
Focal Point Operation Coordination Group of Disaster Management (FPOCG)
NGO Coordination Committee on Disaster Management (NGOCC)
Committee for Speedy Dissemination of Disaster Related Warning/ Signals (CSDDWS)

Government Stakeholders
District Disaster Management Committee (DDMC)
Upazila Disaster Management Committee (UZDMC)
Pourashava Disaster Management Committee (PDMC)
City Corporation Disaster Management Committee (CCDMC)

Step 2: Screen Best Practices on DRM Tools and Instruments

We will seek to conduct a broad and high-level review of DRM tools and instruments employed globally and in various contexts to provide URU with ideas of how they may able to adopt them as part of their core services. Examples of international best practice guidance that we will review include the Hyogo Framework for Action (HFA), the SFDRR 2015–2030, and the European Disaster Risk Reduction Strategy (COM 2008, 130), as well as specific tools used for risk mapping and impact assessments such as ARMONIA (Applied Multi-Risk Mapping of Natural Hazards for Impact Assessment), Na.R.As (Natural Risks Assessment Harmonisation of Procedures, Quantification and Information), MATRIX (New Multi-Hazard and Multi-Risk Assessment for Europe), STREST (Harmonized approach to stress tests for critical infrastructures against natural hazards), and Fortress (Harmonized approach to stress tests for critical infrastructures against natural hazards). These data will help us more easily compare institutions and target those for more in-depth follow-up research.

Step 3: Conduct In-depth Interviews with Institutions Similar to URU

After identifying successful institutions that mainstream urban resiliency and appear to offer an appropriate model for URU, we will further explore their work and experiences through interviews. Based on literature review and desk-research, we have identified the **Pacific Earthquake Engineering Research Center in California, The National Society for Earthquake Technology–Nepal (NSET), Southern California Earthquake Center, Earthquake Engineering Research Center India, and Earthquake Research Institute at the University of Tokyo** to have best practicing DRM tools, earthquake preparedness plans, and outreach programs.

We will conduct in-depth analysis of their history, areas of work/study, organizational structures, legal frameworks, roles and responsibilities, DRM practices, laboratory facilities and equipment, and other factors. Because these institutions will likely be located outside of Bangladesh, we will conduct these interviews by phone. In limited cases where these institutions are in countries where RTI has a presence, we may also supplement phone conversations with select in-person meetings.

During interviews, our team will probe:

- Institutional priorities, services, and outreach
- Institutional structure, staff, and governance
- Institutional funding and revenue streams
- Successes, challenges, and lessons learned
- Partnerships and stakeholders that have been critical to its success
- The nature of any outreach campaigns conducted and their impact
- Metrics and data that the institution uses to validate its success
- Potential interest in hosting URU staff during a study tour.

This step will enable us to understand their structures, regulations, standard operations, roles, facilities, and outreach.

Step 4: Analyze and Document Lessons Learned

After compiling our research, we will analyze the information and what factors have been the most important in the success of institutions like URU in mainstreaming urban resiliency. These factors may be internal (staff skills, DRM tools utilized, organizational structure, etc.) or external (partners, public

perceptions, etc.). Conversely, we will also document any elements that may have created unexpected challenges.

We will draw upon these lessons learned and incorporate them into our participatory assessment of URU (see Activity 4) to help URU better explore alternative ways of working.

Proposed Milestones: Operation 1, Activity #3
1) Profiles of Institutions Similar to the URU, Best Practices, and Lessons Learned (analysis to be included within the Situational Analysis and Feasibility Report) (Month 3)

3.1.4 Activity 4—Solidify Institutional Design through a Participatory Institutional Assessment

URP Component A: Reinforcing the Country's Emergency Management Response Capacity

To help RAJUK improve its institutional design and achieve consensus on how to improve its capabilities as well as which recommendations to implement from the situational analysis and feasibility report, we will conduct a participatory assessment with RAJUK staff. In this assessment, we will collectively explore goals, challenges, priorities, and action items and assist RAJUK in creating a plan to improve its skills and institutional design and establish URU.

The participatory nature of the assessment is designed to empower RAJUK staff as well as existing and new staff that eventually will form part of URU. In our global experience, related assessment-based activities have led to greater partner buy-in and ownership over capacity-building activities. Rather than assessing RAJUK as an external party, we will facilitate dialogue around managerial, operational, and technical capacity, and create consensus on ways to most effectively strengthen performance and institutional sustainability.

We will conduct the assessment of RAJUK in four steps:

Step 1: Customize the Assessment Tool and Process

Our first step will be to tailor RTI's own local organizational capacity-assessment tool. We will do so using information that we obtain through our review of RAJUK documents, meetings with RAJUK staff members and stakeholders, and research on the best practices of institutions that have successfully promoted urban resiliency in other countries. Structured questions will help stimulate better dialogue and prompt staff to reflect more deeply on their goals and how RAJUK can specifically achieve them. General topics that we will explore with RAJUK staff during the assessment are outlined in Step 2. In addition to this, we will explore specific technical areas of urban resiliency that will include implementing and enforcing building codes, flood and seismic hazard and risk assessment, engineering, and professional ethics.

Step 2: Conduct the Participatory Institutional Assessment

In Month 4, we will conduct the assessment with key RAJUK staff over a three-day period. RTI's Team Lead and Organizational Development Specialist (ODS) will co-lead the assessment and guide staff through structured discussions so that they can explore both their technical and operational capacity and goals.

Strengths and weaknesses that the team will explore include:

- Collectively confirming key organizational goals and services.

- Reviewing the institutional organogram, manpower requirements, and roles of each URU division/department. The review will analyze information flows between various roles outlined in the organogram, including staff responsible for urban planning, architectural, site safety, fire safety, worker safety, construction monitoring, and BNBC enforcement and implementation units.

- Skills required for each department/division to achieve goals, and how to improve them.

- Intra- and inter-office engagement including information flows between departments as well as with external stakeholders and the public.

- RAJUK's internal capacity to vet and validate the accuracy and applicability of contributions, criticism, and recommendations provided to them from the public and institutional third parties (e.g. other government departments that issue clearance certification for building permits).

- Operational procedures to ensure quality control, performance criteria for the various URU divisions and staff, and means for measuring and verifying overall institutional success.

- Synchronization of RAJUK and proposed URU operations and systems and services.

- Office operations to achieve goals, including hardware and software needs and specs.

- Key skills of personnel who will staff and operate the URU within RAJUK and the identification of gaps in technical and managerial areas.

- Business models for obtaining funding to sustain URU activities and achieve desired goals.

Step 3: Draft Institutional Design and Organizational Study Report

- Immediately following the assessment, we will draft a detailed institutional design and organizational study report that will outline RAJUK's current organizational structure, workflow, capacity, procedures, office operations, hardware and software needs, monitoring and evaluation systems, and legal frameworks. We will analyze its current state in these areas vis-à-vis its desired goals and metrics (e.g., through anticipated goals and structures that form part of the URU) and will offer concrete recommendations for improving them.

- After combining information obtained and discussed during the review of RAJUK's documents, meetings with RAJUK staff, participatory assessment, and research on institutions similar to RAJUK and its proposed URU, we will draft detailed recommendations for RAJUK's consideration. These recommendations will focus on all aspects but will have a particular focus on decision makers and field experts, inter-engagement processes, and terms of references for positions.

- These recommendations will also include a detailed plan for how to synchronize these activities with the other components of the Urban Resilience Project, such as S4, S5, S7, S8, S9 and S11.

Step 4: Conduct Validation Workshop to Confirm Recommendations and Finalize a Detailed Institutional Strengthening Plan

After submitting the report to RAJUK, we will conduct a two-day validation workshop with RAJUK and its proposed URU management (and possibly the Ministry of Housing and Public Works) in Month 4. During this workshop, RAJUK/URU staff will validate all assumptions of the draft institutional design and organizational report and make final decisions regarding recommendations for strengthening and

institutionalizing the URU within RAJUK. The workshop will also provide the opportunity for RAJUK/URU staff to determine which recommendations to adopt and how to implement them over the life of the contract and beyond.

The end product will be a detailed institutional strengthening plan that will outline how RAJUK will operationalize URU. The plan will address key points relevant to the proposed RAJUK/URU structure, including which capacity-building activities it will undertake to best achieve its mission, how it will engage stakeholders and market services, what hardware it will procure to perform its operations, and how it will sustain them through revenue generation.

In designing the institutional strengthening plan, we will work with RAJUK/URU to synchronize its urban resilience program with the simultaneous and subsequent activities conducted throughout the URP.

We will ensure that best practices and key data collected under Operation 1 are tailored and refined to complement all other operations under this project as well as all operations and activities under URP Packages S4, S5, S7, S8, S9 and S11.

This will include:

- Synchronization of the existing administrative system and implementation process
- Review of the outputs of all URP packages (S4, S5, S7, S8, S9 and S11)
- Clear definition of roles and responsibilities (with particular focus on both decision makers and field experts), inter-engagement processes, and terms of reference for each new proposed or revised position at URU.

URP Component B: Vulnerability Assessment of Critical and Essential Facilities

Our robust understanding of all key operations and activities under Component B will ensure that our institutional strengthening plan syncs with and complements the wider URP. Under Component B, we expect the institutional strengthening plan will act as a key resource and reference guide to URP activities that relate to:

- The vulnerability assessment of critical and essential facilities and lifelines at RAJUK and its newly operational URU.
- The development of a risk-sensitive land use planning practice in Dhaka, spearheaded by the newly operational URU at RAJUK.

URP Component C: Improved Construction, Urban Planning, and Development

Our robust understanding of all key operations and activities under Component C will ensure that our institutional strengthening plan syncs with and complements the wider URP. Under Component C, we expect the institutional strengthening plan will act as a key resource and reference guide to URP activities that relate to:

- The new and enhanced capacity and skills at RAJUK's URU that could support the establishment of an electronic construction permitting system.
- The new and enhanced capacity and training resources within RAJUK that can support URU to set up a professional accreditation program for engineers, architects, and planners.

- The new and enhanced building code enforcement within RAJUK's jurisdiction that is implemented and enforced via the URU.

This institutional strengthening plan will serve as a roadmap for the RTI Team in determining which areas we will provide capacity-building support under Operation 3 and, most importantly, guide the RAJUK's management efforts over the coming years.

Our goal is to ensure that RAJUK and its newly operational URU have a clear action plan for achieving the recommendations, with clear deadlines, accountability, and action items.

Because RAJUK/URU management will have already been involved in the discussion of these challenges and recommendations during the assessment workshop, we anticipate a swift confirmation with the majority of time focused on further elaborating the implementation of the recommendations.

We will finalize the institutional strengthening plan during the workshop and submit the final institutional design and organizational study report to URU and World Bank after its conclusion.

Proposed Milestones: Operation 1, Activity #4
1) Conduct Participatory Institutional Assessment (Month 4)
2) Prepare a Draft Institutional Design and Organizational Study Report (Month 4)
3) Conduct a Validation Workshop and Create an Institutional Strengthening Plan (Month 4)
4) Finalize the Institutional Design and Organizational Report (Month 4)

3.2 OPERATION 2: Design, Conduct, and Assess a Community Outreach Campaign

In Months 2–27, we will design and conduct a community outreach campaign alongside URU, helping them to create a favorable platform to engage the public and disseminate knowledge. Although we will lead the campaign efforts, we will heavily involve URU staff in the campaign's design and implementation so that they are positioned to lead these efforts in the future to mitigate the impacts of possible disasters. We will assess the success of this campaign in Month 28. The graphic below illustrates the overlap in timing on these activities.
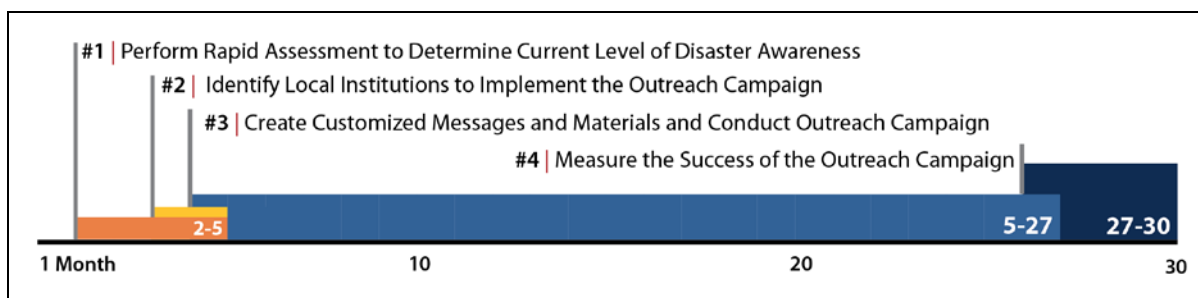
3.2.1 Activity 1—Perform Rapid Assessment to Determine Current Level of Disaster Awareness

An assessment of the current level of disaster and earthquake awareness among distinct audiences is key; it will help RTI and URU determine how to best tailor the outreach campaign to each target group as well as establish a baseline on which to measure the effectiveness of the campaign.

Step 1: Design and Issue Public Tender to Solicit Local Organizations

To conduct our assessment, we will issue a public tender to solicit local organizations to conduct this work. More than one organization may be selected to target specific audiences. RTI and URU will work with the selected organization to jointly design the assessment, which will include mixed methods, such as online surveys and in-person focus groups.

Questions that we will develop to assess awareness will explore the following areas for each of the audiences, including:

- **Public**—Their level of awareness on how to prepare for and mitigate the impacts of an earthquake; their knowledge on disaster preparedness resources; their perceived level of threats of earthquakes and other natural disasters.

  This section will also consider the level and relevance of individual responsibility in disaster planning (e.g., specific mitigation measures that can only be made by property owners, such as securing the building from floodwaters and maintaining adequate checks on basic structural integrity in line with building standards).

- **Professional Organizations**—Their level of awareness on how to prepare for and mitigate the impacts of an earthquake; their knowledge of disaster preparedness resources; their perceived level of threats of earthquakes and other natural disasters. These professional organizations include industrial, commercial and hospitality sector companies.

  This section will also consider the level and relevance of organizational responsibility in disaster planning. Examples include specific mitigation and response measures that can only be made by property owners and suppliers of essential goods and services (e.g., utility service providers).

- **Educators / Schools**—Their level of training for teachers and pupils on what to do in the event of an earthquake and general safety standards and guidelines that exist within schools.

Step 2: Conduct Rapid Assessment to Determine Current Level of Disaster Awareness

A rapid assessment of the current level of disaster and earthquake awareness among distinct audiences is key; it will help RTI and URU determine how to best tailor the outreach campaign to each target group as well as establish a baseline on which to measure the effectiveness of the campaign. To conduct our assessment, we will issue a public tender to solicit local organization to conduct this work. RTI and the URU will work with the selected organization(s) to jointly design the assessment, which will include mixed methods, such as online surveys and in-person focus groups. The assessment will also examine the role of post-disaster responses from key identified audiences, such as first responders, emergency response personnel and large commercial and industrial stakeholders, who often play important roles in sustaining vital resources and skills during and after a disaster.

Questions that we will develop to assess awareness will explore the following areas for each of the audience including:

- Public—Their level of awareness on how to prepare for and mitigate the impacts of an earthquake; their knowledge on disaster preparedness resources; their perceived level of threats of earthquakes and other natural disasters.

- Professional Organizations—Their level of awareness on how to prepare for and mitigate the impacts of an earthquake; their knowledge of disaster preparedness resources; their perceived level of threats of earthquakes and other natural disasters.

- Educators/Schools—Their level of training for teachers and pupils on what to do in the event of an earthquake and general safety standards and guidelines that exist within schools.

The assessment will also examine the role post-disaster responders, such as first responders, emergency response personnel and large commercial and industrial stakeholders, who often play important roles in sustaining vital resources and skills during and after a disaster. In doing so, we will also determine the knowledge and awareness that industry and commercial leaders in Dhaka have of post-disaster response roles.

Proposed Milestones: Operation 2, Activity #1
1) Select Local Institutions to Assess Current Levels of Disaster Awareness (Month 3)
2) Conduct Rapid Assessment of Disaster Awareness Among Various Audiences (Month 4)

3.2.2 Activity 2—Identify Local Institutions to Implement the Outreach Campaign

After conducting the rapid baseline assessment, our first step in conducting the outreach campaign will be to identify local institutions and reach out to the public to identify key specialists and consultants that have the greatest capacity to raise awareness of disaster risk. We will do so by issuing a tender, inviting nongovernmental organizations and other service providers to submit a proposal on how they would conduct an outreach campaign to reach the public, professional organizations, and the education sector. In their proposals, prospective contractors will be asked to identify the specific target audiences that they propose to reach, their method of activities for raising awareness, and their timeline.

Step 1: Design and Issue Tender for Outreach Campaign

In Month 5, RTI and URU will issue a tender, inviting nongovernmental organizations and other service providers to submit a proposal on how they would conduct an outreach campaign to reach the project's three distinct audiences:

1) Public

2) Professional organizations that include developers, garment industry, real-estate industry, tourist industry, utility sector, and other service providers

3) Education sector such as schools, teachers, and other educators.

Some institutions may be best suited to reach only schools, for example, whereas others may be better positioned to reach professional organizations. Applicants can thus submit proposals to as many target audiences as they are capable of reaching.

In their proposals, prospective contractors will be asked to identify the specific target audiences that they propose to reach, their method of activities for raising awareness, and their timeline. In addition to issuing a public tender, RTI and URU will identify those institutions that may be best suited to perform this task and will encourage them to apply.

Step 2: Selection of Local Organizations for Outreach Campaign

Following the receipt of proposals, RTI and URU will jointly determine which institutions are best placed to raise disaster awareness among the respective target audiences according to pre-identified selection criteria. These criteria are likely to include:

- The number of proposed institutions that they will reach

- The effectiveness of their proposed strategies

- Their past experience in successfully performing other outreach campaigns

- The feasibility of their timeline

- Their level of experience and skills held by proposed and identified management and implementation staff

- Proposed costs.

We may select multiple institutions to effectively reach all audiences. As part of the review and negotiation process, specific institutions that contractors propose to target may be changed. For example, if particular schools are deemed exceptionally vulnerable, we may request that they be targeted under the campaign.

RTI may select multiple institutions to effectively reach all audiences. As part of the review process, RTI and the URU will evaluate the appropriateness of the institutions in which they have named and, as part of the negotiation process, adapt the specific institutions to be targeted. For example, if particular schools are especially vulnerable, or certain professional organizations are critical to include, we may negotiate that they be included in the campaign.

Proposed Milestones: Operation 2, Activity #2
1) Identify Local Institutions to Conduct the Outreach Campaign (Month 5)

3.2.3 Activity 3—Create Customized Messages and Materials and Conduct Outreach Campaign

After conducting the rapid assessment of each target audience, we will have a strong understanding of the gaps in awareness and how to craft campaign messages that bridge this knowledge. Collectively, RTI, URU, and the local institutions that we contract to assist with the campaign will work to develop the messages for each audience. Additional inputs into content will also be requested from non-strategic partners, including first responders. A joint effort will ensure that the URU is on board with the messages and is developing their capacity to conduct future outreach campaigns.

Resources and materials that we may produce for all audiences include:

- Posters on disaster awareness to be displayed in public buildings and infrastructure
- Brochures to be distributed, particularly to companies involved in construction, demolition, or other related engineering works on the importance of building standards
- Billboards that increase general awareness of available resources
- YouTube, Facebook, and social media content to raise awareness among youth
- Radio and television broadcasting.

We will ensure that all activities that we conduct under the outreach campaign will be interactive, helping target audiences better learn how to protect themselves in the event of a disaster as well as be supportive of changes in infrastructure investments and practices. Some illustrative interactive activities include:

- The development/use of interactive games such as the UN's StopDisasters! (http://www.stopdisastersgame.org/) that can teach children about a range of natural disasters and what actions they can take to keep their families safe.
- Poster contests that inform the public on how to protect their families, businesses, and communities, while at the same time developing creative products to disseminate messages.
- Innovation competitions that solicit creative solutions to disaster preparedness from a range of groups, including government organizations, nonprofits, and businesses. These would be targeted to producing technologies and practices that can better protect houses against wind damage, reduce flooding in city streets, and others.

Our outreach campaign will also involve creating an actionable training plan for selected schools and professional development organizations. We will seek to identify relevant audiences and stakeholders via close coordination with the Ministry of Education, leading universities, and vocational training bodies. Identified stakeholders will be invited to participate and provide inputs into the training plan to ensure our approach remains inclusive, which may include the provision of content that these stakeholders already manage in existing training resources. We will disseminate and brief selected institutions and stakeholders on our final training plan and additional providing practical guidance on the projected resourcing requirements for various training options.

Proposed Milestones: Operation 2, Activity #3
1) Messages and Materials to Each Audience Based on Industry and Level of Awareness (Months 5–9)

2) Training Plan for Selected Schools and Professional Development Organizations
(Months 5–9)

3.2.4 Activity 4—Measure the Success of the Outreach Campaign

Immediately after assessing the current levels of disaster awareness, we will develop robust metrics that will help us better achieve and measure the success of our outreach efforts. The assessment baseline will help us establish appropriate indicators and outreach goals for each of the target audiences. Illustrative metrics may include:

- The number of individuals that indicate that they have an increased awareness of how to prepare for a disaster
- The number of schools and individuals that report they have a greater understanding of what to do in the event of a disaster
- Examples of action-oriented initiatives taken by select audiences (e.g., the number of evacuation drills conducted by a school, the presence of posted media on disaster risk planning in schools, etc.)
- The number of individuals that have an increased understanding of the risks in their areas, as evidenced by mitigation measures that they have put in place
- The number of professional organizations that are expanding their services in urban resiliency (i.e., builders and architects that are providing earthquake resistant structures)
- The number of schools that are training teachers and students to reinforce disaster awareness on an ongoing basis.

To gauge our performance in increasing disaster awareness, we will conduct another assessment of the awareness level of the target audiences after we have concluded the outreach campaign. This assessment will include a mix of online surveys and focus group discussions. These results will help URU better understand where they may need to continue to provide support.

This final deliverable for Operation 2 is a report describing the community outreach campaign. Within six months of the approval of the feasibility analysis report, RTI will submit a draft version of the community outreach campaign report for review and comments and/or approval by RAJUK. The anticipated elements of the report include:

- Tendering summary
- Selection criteria for identifying proposed service providers for conducting the outreach campaign
- Budget for engagement with contracted organizations
- Media types and approaches for awareness program
  - Posters, brochures, social media, broadcasts, presentations for awareness program
  - Innovations to raise disaster awareness
  - Actionable training plan for raising disaster awareness among organizations
- Selected and delivered content and resources
- Measurement and evaluation metrics
- Findings and feedback.

Proposed Milestones: Operation 2, Activity #4
1) Monitor and Evaluate Disaster Risk Outreach Campaign (ongoing monitoring, assessment in Month 28)

3.3 OPERATION 3: Train and Build the Capacity of URU Staff

Training and capacity building for URU staff will be conducted only after approval of the effective organogram and organizational structure and the related hiring process of all the members and staff is completed. We will conduct Operation 3 during Months 3–30, working diligently to develop capacity-building materials and training and mentor URU staff from an early stage of the project. The graphic below illustrates the timing of major activities in this operation.
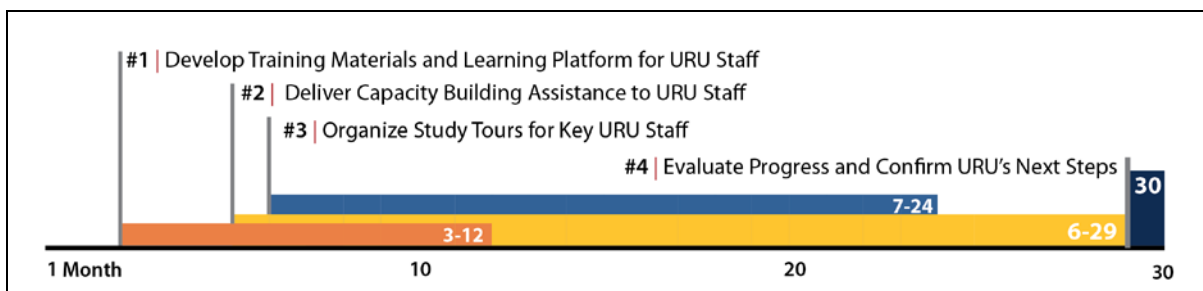
3.3.1 Activity 1—Develop Training Materials and Learning Platform for URU Staff

We will use a blended approach to build the capacity of URU staff, incorporating a mix of in-person training, coaching and mentoring, online learning, and peer learning to accommodate a wide variety of needs and maximize resources. Participatory and adult learning techniques will be embedded within all our support so that URU staff are empowered to be active learners and we can refine content throughout the process based on feedback and results.

We will create a tiered process for developing capacity-building materials for URU staff that will involve four key steps, as outlined below.

Step 1: Identify Capacity-Building Topics

The first step in developing training materials for URU staff will be to identify capacity-building topics, which we will do through the institutional strengthening plan that is created as part of the institutional design and organizational study. In conjunction with URU, we will prioritize these areas so that we can focus more intensively on those that URU deems most critical to their performance and sustainability. If the areas for capacity-building support far exceed the resources of what RTI may be able to provide under this contract, we will share this list with the World Bank and discuss options for fully meeting URU's needs.

Although specific capacity-building needs and activities for URU cannot be developed until this time, our team is prepared to provide training on a selection of topics that will help the URU incorporate DRM into RAJUK's operations, functions, planning, policy, and decision making.

These topics include:

- Project and process management, project development, and managerial skills
- BNBC implementation, including training for the enforcement of BNBC and related development permitting processes
- Physical Risk Index (PRI) including indirect impacts on surrounding natural and material resources (e.g., transportation infrastructure, water supply infrastructure, wastewater infrastructure, natural gas resources, electric power resources, communication resources, oil resources)
- Impact Factor Index (IFI), including considerations for population density, vulnerable populations (elderly, very young, disabled, illiterate, gender ratio, and dilapidated housing), lack of access to services (electricity, water, and sanitation), and lack of coping capacities (hospitals, schools and police stations)
- Urban resiliency and sustainable development
- Hazard and Vulnerability Risk Assessment (HVRA) and fundamentals of disaster risk management
- Seismic retrofitting and rehabilitation of the existing structures and lifelines
- Building code enforcement and electronic permitting systems
- Flood and seismic hazard and risk assessment
- Engineering and professional ethics
- Micro-zonation studies, risk-sensitive land use planning, and GIS
- Quality assurance and quality control of site construction including reporting and approval processes.

Other topics that may be identified for capacity building include those related to URU's governance, research processes and the production of publications, and general support on implementing recommendations outlined in their action plan. This step will also consider past planning and training processes, including those in the Detailed Area Plan (DAP) and the RSLUP Blended Training Course by the Bangladesh Urban Earthquake Resilience Project (EMI).

Step 2: Identification of Monitoring and Field Equipment Tools for Construction Standards

In addition to the topics above, URU must be capable of tracking construction quality and establishing norms and standards to improve construction in and around Dhaka. To help URU plan their laboratory procurement and operation, we will provide recommendations on the types of field equipment that they may wish to consider, human resources required to use and maintain them, and estimated capital costs.

We will aim to provide a range of options, from which URU can choose, so that cost and resourcing requirements more closely match projected URU revenue. The team will additionally explore how URU could mitigate the need to procure and finance its own equipment and resources using existing equipment and resources held by stakeholders, such as universities, civil engineering companies, and other government departments.

Specific areas of attention for these practical guides may include:

- Testing methods for construction materials to improve construction quality

- Assessment methods for determining structural vulnerability of various material types (e.g., wood, concrete, steel), including fragility curves, damage ratio curves, and applicable software tools (e.g., CAPRA, HAZUS)
- Assessment methods for testing geology, geomorphology, seismicity, soil, site conditions, and earthquake energy attenuation characteristics.

Step 3: Identify Relevant Subject Matter Experts and Develop Learning Objectives

After agreeing upon the areas in which URU would like to see their capacity strengthened (as outlined in their institutional strengthening plan), the next step will be to identify relevant subject matter experts and develop learning objectives for identified capacity building areas. Specific experts and industry professionals that are invited to take part in program activities may include seismologists, structural engineers, materials testing technicians, spatial analysts, and others.

Industry professionals may be sourced from several pre-identified consultancies, including BUET-JIDPUS, SDE Consultants Ltd., and e.Gen Consultants Ltd.

The RTI In-country Program Director, Glenn Whaley, and National Program Manafer, Engr. Shafiul Alam, will vet any experts to ensure that they have the technical skills, appropriate cross-cultural skills, and time to prepare high-quality content within the timeframes identified in URU's action plan. Where possible, the team will seek to recruit Bangladeshi experts, such as those employed in BUET-JIDPUS, to leverage local knowledge.

In Months 4 and 5, these experts, guided by the project Team Leader, will collectively develop the learning objectives and basic outlines of content for their respective topics. We will aim to have all learning objectives defined and shared with URU by the end of Month 5. In creating the learning objectives for each area, we will also develop the metrics by which we will measure the success of our efforts in building URU's capacity.

Step 4: Create Learning Platform

The last step will be to create an innovative and interactive online learning platform for URU staff to complement on-the-ground support. All topics addressed through online learning will have mentors, or instructors, that will regularly interact with URU staff and provide remote support so that they can discuss the material with them, participate in dynamic exercises relevant to the URU context, and allow the URU the opportunity to ask and address questions.

In select cases, mentors may travel in person to Bangladesh (or be hired from within the country) to provide supplementary, in-person support to URU staff. During Months 3–8, RTI will design the platform and identify the best way to display material and interact with URU staff given language capabilities and learning objectives.

Step 5: Create Content and Review Materials

Following the development of learning objectives, selected experts and their teams will begin to draft outlines of the content and share them with RTI's Project Manager and Team Leader. Because we will focus on mentoring and coaching (both in person and online), as opposed to traditional training, materials will not be lecture oriented but structured in a way that engages reflection, prompts dialogue, and are based on real scenarios that are applicable to URU.

A library of various resources including guides, reports, and manuals, produced by the project team and sourced from relevant third parties will be developed to serve URU both during and after the URP. Where subject matter experts are not familiar with the context in Bangladesh, our team of Bangladeshi experts identified for this project will work closely with them to adapt the material.

Step 6: Refine and Fine Tune Content and Review Materials

We will support several key initiatives to ensure that content and materials are constantly refined and fine-tuned in line with best practice and newly acquired knowledge.

The project's Human and Institutional Capacity Expert will provide input into the content to ensure that it appropriately incorporates adult learning techniques and there is consistency in the flow and format of the various learning materials.

The Team Leader will develop a detailed timeline for each of the areas of capacity-building support, creating deadlines for subject matter experts for their respective drafts so that RTI can review, edit, and format them according to schedule. We will develop this schedule during the development of URU's action plan.

We intend to stagger the development of materials (focusing initially on priority areas) so that we can roll it out in a phased approach and do not overwhelm URU staff. Regular meetings with the various subject matter experts will ensure that we can adhere to timelines and identify any obstacles throughout the process.

RTI will ensure strong quality control over all materials so that we can ensure that they meet the highest standards of learning material in urban resiliency. This quality control process will involve reviewing material, seeking feedback from URU, evaluating results, and adjusting content/design based on the feedback.

Proposed Milestones: Operation 3, Activity #1
1) Definition of Capacity Building Topics (Month 4)
2) Recruitment of Subject Matter Experts and Consultants (Month 4)
3) Development of Online Learning Platform (Month 8)
4) Upload and Fine Tune Content for Online Learning Platform (Month 9)

3.3.2 Activity 2—Deliver Capacity Building Assistance to URU Staff

Strengthening the capacity of URU staff across management and technical topics will involve a mix of training, customized technical assistance, in-person and remote mentoring, and peer learning. As we identify the technical topics during the joint development of URU's institutional strengthening plan, we will determine the best way to deliver support for each.

Step 1: Delivery of Capacity-Building Assistance

To provide the most efficient and user-friendly delivery of capacity-building activities, we will tailor the structure of various topics to user preferences. Some topics may be better suited to in-person support through facilitated workshops or trainings, whereas others may be better covered by international experts through the newly developed online learning platform.

Key activities may consist of discussion forums, mock exercises, e-consultations with an international network of specialists, group assignments, and an end-of-training evaluation. Our capacity-building

activity will also seek to reference and support the use of third-party and supplemental resources and tools to complement the training program—for example, though a GIS training program that addresses new spatial analysis activities conducted by URU, or through an existing course offered at BUET-JIDPUS.

Step 2: Monitoring & Evaluations of Capacity Building Assistance

An important element of our delivery will be built-in monitoring and evaluation systems so that we can assess results in real time and adjust as necessary. To do this, we will not only seek URU feedback constantly throughout the process, but will assess changes in skills, behaviors, and practices that will inform us on the effectiveness of our work.

We will do this through a variety of pre- and post-tests for each topic. Several local experienced companies may be available for consulting and capacity-building assistance support operations for URU. These include BUET-JIDPUS, Technohaven Co. Ltd., Development Design Consultants Ltd., Sheltech Pvt. Ltd., and the Nahrin Corporation.

Proposed Milestones: Operation 3, Activity #2
1) Delivery and Completion of Capacity Building Assistance Training to URU Staff with Local/ International Consultants (Month 29)

3.3.3 Activity 3—Organize Study Tours for Key URU Staff

While exploring different models of institutions that promote urban resiliency (see Operation 1, Activity 3) that may serve as a model for URU, we will simultaneously seek to identify candidates for a structured study tour where URU can further build their technical and managerial skills. During the process of assessing URU's skills and determining priorities for capacity building, RTI and URU will develop the learning objectives of the study tour and identify the staff that are most critical to participate.

Identifying objectives will help establish common parameters for finding appropriate institutions. Our goal is to help URU learn in-depth about the services that these institutions provide and facilitate discussions around effective staffing structures, partnerships, and outreach that have made them particularly effective. Once we have identified these institutions, we will work to develop a timeline for conducting the study tours and begin to plan logistical support.

To provide flexible and cost-efficient study tour options for URU, a number of domestic and options will be recommended, ranging from several days to several weeks. We will additionally identify a list of international entities that are or will be situated in Dhaka on a temporary or permanent basis during the URP.

This may include connecting URU with a foreign delegation or mission from the BUET-JIDPUS, or further collaborative work among existing RAJUK networks, such as the Center for Collaboration Research on Disaster Risk Reduction (ICCR-DRR), the Beijing Normal University, China (BNU), and National Society for Earthquake Technology–Nepal (NSET) that have all previously operated project and field operations and offices in Dhaka.

Following the study tour, we will seek to establish a long-term relationship between URU and the institution or institutions to continue connectivity and learning. Such a relationship will enable URU to

have sustained support beyond the life of this contract and help URU leverage its new capabilities and structure in new and exciting ways.

Proposed Milestones: Operation 3, Activity #3
1) Plan up to Three International Study Tours for Key URU Staff (Month 22)

3.3.4 Activity 4—Conduct Final Workshop to Evaluate Progress and Revise Institutional Strengthening Plan

In the final month of the project, we will convene a workshop for URU staff to discuss the progress of all capacity-building activities and evaluate URU's progress against the institutional strengthening plan. We will guide URU staff in reflecting upon what they have accomplished and achieve consensus on revisions to the institutional strengthening plan. For example, URU may determine that additional skills are required or that there are remaining steps to complete for establishing their laboratory for services.

Many of these needs and extra inputs may only become apparent after key operations and activities have begun. The ability to reconsider and evaluate any remaining tasks, including those related to the institutional strengthening plan, will be analyzed and addressed via this core activity. This final workshop will additionally bring all staff together to discuss next steps and revise the strengthening plan that URU will carry forward following RTI's involvement.

After this workshop, we will prepare a final report that will reflect the revised institutional strengthening plan, the results of the outreach campaign, and document our progress on all other activities.

Proposed Milestones: Operation 3, Activity #4
1) Final Workshop to Review Progress and Revise Institutional Strengthening Plan (Month 30)

2) Progress Report That Addresses Final Workshop and Progress to Date on Other Relevant Activities (Month 30)

4. Project Management and Organization

The following section describes the structure of the project team and its managerial procedures.

4.1 Members of Study Team

The project team consists of experts as shown in the table below.

FUNCTIONAL AREA	PROJECT ROLE	TEAM MEMBER
CORE MANAGEMENT TEAM	In-Country Program Director	**Glenn Whaley** 41 years of program management
	Headquarter Program Director	**Keith Weitz** 26 years of program management
	National Program Manager	**Engr. Shafiul Alam** 38 years of program management
	Project Coordinator	**Jennifer Richkus** 17 years of program coordination
KEY TECHNICAL PROFESSIONALS	Team Leader	**Kimiro Meguro** Professor, University of Tokyo
	Project Manager	**H. Kit Miyamoto** Structural Engineer, Miyamoto Intl
	Legal & Institutional Arrangement Expert -1	**Stephen B. Butler**
	Legal & Institutional Arrangement Expert - 2	**Khandker Shamsuddin Mahmood**
	Human & Institutional Capacity Development Expert - 1	**Peter Medway**
	Human & Institutional Capacity Development Expert - 2	**ABM Sayedul Kawnine**
	Knowledge Management & Outreach Expert	**Moloy Chaki**
TECHNICAL ADVISORS	Technical Advisor	**Engr. Emdadul Islam** Ex-Chief Engineer, RAJUK
	Technical Advisor	**Dr. Raquib Ahsan** BUET-JIDPUS

4.2 Project Schedule

The contract was signed with the project team on 3 October 2018 with commencement of services within 7 days. The project is expected to conclude in 30 months, by April 2021. A detailed work schedule can be found in Section 5.

4.3 Role of Stakeholders and Decision Making

Stakeholders will be a key component of the design and implementation of the project. RAJUK will facilitate formal introductions of the project team to stakeholders at relevant agencies, including RAJUK, DoE, DESA, WASA, TITAS Gas, DMP Traffic, DCC, and the Civil Aviation Authority.

4.3.1 Coordination Committee

The Coordination Committee will consist of members from relevant agencies and stakeholders to provide insight on stakeholder needs and facilitate coordination among stakeholders during the training development and outreach implementation processes. The committee is expected to provide comments on deliverables, participate in stakeholder workshops and surveys, and assist in decision making for the design of the training platform and outreach campaign.

4.3.2 Stakeholder Consultations

RTI Team members will meet with stakeholders during the assessment, design, testing, and deployment phases of the project to gather local knowledge and feedback on elements of the construction permitting process and proposed tools.

Below is a preliminary list of government agencies, utilities, and other stakeholders that will be consulted:

- RAJUK
- Department of the Environment (DoE)
- Dhaka Electric Supply Authority (DESA)
- Water Supply and Sewerage Authority (WASA)
- TITAS Gas
- Dhaka Metropolitan Police Traffic
- Dhaka City Council (DCC)
- Civil Aviation Authority
- Dhaka Transport Coordination Board
- Ministry of Housing & Public Works (Urban Development Directorate, Public Works Department, Roads and Highways)

- Ministry of Land (Department of Land Record and Survey)
- Dhaka University of Engineering and Technology
- Ministry of Local Government (Local Government Engineering Department)
- Bangladesh Inland Water Transport Authority (BIWTA)
- Bangladesh Meteorological Department

RAJUK and the World Bank are expected to facilitate the introductions and maintain a role in stakeholder coordination to ensure visibility and long-term engagement in the capacity building process of URU.

4.3.3 Quality Assurance

Quality assurance is a critical element for effective and successful project management and delivery. The objective of quality assurance is to ensure that objectives, deliverables, communication procedures, and risks of the project are clearly defined and stated at the inception of the project.

4.3.4 Communications Procedure

The delivery of this project will require a close relationship and involvement of the World Bank, RAJUK, and stakeholders. RAJUK is expected to devote the time needed to provide relevant data and documents, as well as facilitate and participate in meetings as needed to support project development and implementation. The RTI Team will take primary responsibility for posting of meetings and providing minutes.

The RTI Team will employ the communications schedule listed in the table below to ensure regular and consistent coordination and communications.

Communications Schedule

Frequency	Format	General Agenda / Content
Daily	• Informal communication and correspondence (office conversation, e-mail, telephone, Slack team management facility, etc.)	• Progress updates • Issues resolution queries • Customized interface and data sets • Work progress status update (by activity) program review • Review of outstanding issues/QC update • Executive summary
Weekly and Monthly	• Real-time reporting systems (web module) • Weekly progress reports	• Narrative description of works completed in previous month • Forecast of major work elements in coming month and requirements for RAJUK support • Project risk assessment registry
Quarterly	• Overall performance review commission	• Review of schedule • Client-consultant review of progress, performance, risks, and implementation strategy, and adjustments as necessary
Milestones	• Project deliverable reports	• Requirements outlined in the delivery of products or services payment schedule

The In-Country Program Manager, Glenn Whaley, will be the primary communication point of contact for the project. RTI will be responsible for arranging all contact and communications between the client and RTI Team members, and RTI and RAJUK will coordinate to arrange points of contact and communication pathways between the RTI Team and external stakeholders.

4.3.5 Timely Feedback and Issue Resolution

- Day-to-day communications within 12 hours of contact unless point of contact is on planned vacation or emergency leave
- Strategic decisions within 5 business days unless otherwise specified

4.3.6 Project Documentation

- Paper documents
- Electronic documents
- Response to comments documentation

4.3.7 Project Language

- English

4.3.8 Evaluation of Project Risks

- Lack of support or communication
- Changes in regulatory/agency structure
- IT infrastructure, IT resource mobilization

4.3.9 Requirements of the Counterpart Government

The RTI Team requests the following support from the national and local governments of Bangladesh to facilitate the smooth and expedient production of the master plan and associated analysis and deliverables:

- Establish a focal point to liaise with the RTI Team as required to facilitate project tasks
- Provide data as requested
- Provide letters, credentials, and/or permits to authorize the RTI Team to conduct surveys and engage with stakeholders
- Provide invitation letters and facilitate issuance of business visas as needed
- Organize personnel support from RAJUK for establishing trainers and help desk support
- Organize and liaise with stakeholders to participate with focus groups, technical committee meetings, and Oversight Committee workshops
- Provide space/rooms for focus groups, technical committee meetings, and Oversight Committee workshops.

5. Workplan

WP No.		Month
		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	Activity in progress	▲ Deliverable
	Payment milestone	◆ Milestone Payment
OPERATION #1 -- INSTITUTIONAL DESIGN AND ORGANIZATIONAL STUDY		
	Activity 1: Project Planning and Kick-off	
	ACTIVITY PAYMENT - Contract Signing (10%)	◆
1.1.1	Hold Project Kick-off Planning Meeting with RAJUK / URU	
1.1.2	Prepare & Submit Draft Inception Report	
	Activity 2: Conduct Situational and Feasibility Analysis by Examining Key Organizational Documents and Interviewing URU Staff	
1.2.1	Collect and Analyze Key URU Documents and Meet Individually with Select RAJUK / URU Staff	
1.2.2	Review Implementation Guidance & Key Considerations from the Bangladesh National Building Code	
1.2.3	Meet Individually with Relevant External Stakeholders	
1.2.4	Recommend Revised Organogram for URU's Consideration	
1.2.5	Draft Situational Analysis and Feasibility Report	
	ACTIVITY PAYMENT - Report #1: Situational Analysis and Feasibility (10%)	◆
	Activity 3: Conduct Research on Best Practices / Similar Institutions in Developing Countries	
1.3.1	Conduct Initial Research of Institutions with Models Similar to URU and Map Institutional Profiles	
1.3.2	Screen Best Practices on DRM Tools and Instruments	
1.3.3	Conduct In-Depth Interviews for Select Institutions that are Most Similar to URU	
1.3.4	Analyze and Document Lessons Learned from Institutions Similar to URU	
	Activity 4: Solidify Institutional Design through a Participatory Institutional Assessment	
1.4.1	Customize RTI's Assessment Tool and Process	
1.4.2	Conduct Participatory Institutional Assessment of URU	
1.4.3	Prepare Draft Institutional Design and Organizational Study Report	
1.4.4	Conduct Validation Workshop to Confirm Recommendations and Finalize a Detailed Institutional Strengthening Plan	
1.4.5	Finalize and Submit Institutional Design and Organizational Study Report	
	ACTIVITY PAYMENT - Report #2: Institutional Design and Organizational Study Report (20%)	◆
OPERATION #2 -- DESIGN, CONDUCT, AND ASSESS A COMMUNITY OUTREACH CAMPAIGN		
	Activity 1: Perform Rapid Assessment to Determine Current Level of Disaster Awareness	
2.1.1	Issue Tender to Identify Local Institution(s) to Perform Rapid Baseline Assessment	
2.1.2	Select Local Institution(s) to Perform Rapid Assessment on Disaster Awareness	
2.1.3	Perform Rapid Assessment to Determine Current Levels of Disaster Awareness Among Audiences	
2.1.4	Prepare Report Documenting the Findings of the Baseline Assessment	
	Activity 2: Identify Local Institutions to Implement the Outreach Campaign	
2.2.1	Develop Criteria for Selecting Local Institutions to Conduct the Outreach Campaign	
2.2.2	Issue Tender for Local Institutions to Conduct Outreach Campaign to Diverse Audiences	
2.2.3	Select Local Institution(s) to Perform Conduct the Outreach Campaign	
	Activity 3: Create Customized Messages and Materials and Conduct Outreach Campaign	
2.3.1	Customize Messages and Craft Materials for Respective Target Audiences	
2.3.2	Conduct Outreach Campaign	
	Activity 4: Measure the Success of the Outreach Campaign	
2.4.1	Develop Metrics for Measuring the Success of the Campaign	
2.4.2	Rapid Surveys to Gauge Success	
2.4.3	Measure Final Results and Success of the Campaign	
2.4.4	Document Final Results on the Success of the Campaign in Final Report	
	ACTIVITY PAYMENT - Report #3: Community Outreach Campaign Report (10%)	◆

WP No.		Month
	Activity in progress	Deliverable
	Payment milestone	Milestone Payment

OPERATION #3 -- TRAINING AND CAPACITY BUILDING OF URU STAFF

WP No.	Description	Months (1–30)
	Activity 1: Develop Training Materials and Learning Platform for URU Staff	
3.1.1	Identify Priority Topics in which to Build URU's Capacity	month 3
3.1.2	Identify Subject Matter Experts and Develop Learning Objectives	months 3–4
3.1.3	Create Online Learning Platform	months 5–8
3.1.4	Create Training Materials for URU Staff	months 5–11
	ACTIVITY PAYMENT - Report #4: URU Training Materials and Documentation Report (20%)	◆ month 12
	Activity 2: Deliver Capacity Building Assistance to URU Staff	
3.2.1	Deliver Capacity Building Assistance to URU Staff	months 7–20
3.2.2	Submit Progress Report on URU Capacity Building Activities	month 20
	Activity 3: Organize Study Tours for Key URU Staff	
3.3.1	Identify Learning Objectives and Host for Study Tour(s) for URU Staff	months 7–8
3.3.2	Plan Study Tour Agenda(s) and Logistics	months 9–10
3.3.3	Conduct Study Tour(s)	months 11–22
	ACTIVITY PAYMENT - Report #5: Capacity Building Program and URU Staff Trainings Report (25%)	◆ month 21
	Activity 4: Evaluate Progress and Confirm URU's Next Steps	
3.4.1	Final Workshop to Assess Results and Revise Institutional Strengthening Plan	month 30
3.4.2	Submit Final Report	month 30
	ACTIVITY PAYMENT - Report #6: Monitoring and Evaluation Report (15%)	◆ month 30
B	**PAYMENT DELIVERABLES**	
1	Report #1: Situational Analysis and Feasibility Report	▲ month 2
2	Report #2: Institutional Design and Organizational Study Report	▲ month 3
3	Report #3: Community Outreach Campaign Report	▲ month 6
4	Report #4: URU Training Materials and Documentation	▲ month 12
5	Report #5: Capacity Building Program and URU Staff Trainings Report	▲ month 19
6	Report #6: Monitoring and Evaluation Report	▲ month 21

Annex A: Terms of Reference

1. <u>Context</u>

In recent years, Bangladesh has reformed its approach to cyclone and flood risk management and preparedness. Triggered by major loss of life and assets, notably during the cyclones of 1970 and 1991 that killed over 300,000 and 140,000 people respectively, the Government of Bangladesh (GoB), civil society, and international development partners have demonstrated that investment in the systems and structures of flood risk management and cyclone preparedness saves lives, reduces economic loss, and protects development gains. As such, Bangladesh is cited often in the rationale for investment in disaster risk management (DRM) activities globally.

The threat of an earthquake, however, is less visible but significant given that Bangladesh lies on the seismically active Indian plate. Inertia has slowed earthquake awareness because these events occur less regularly and are currently relatively absent from the living memory of the country's inhabitants and leaders. Studies by the Geological Survey of Bangladesh divide the country into three seismic zones, which show that earthquake risk is medium to high throughout the country and increases towards the north and east of the country. Although there is some uncertainty, research suggests that an earthquake of up to magnitude 7.5 is possible, and the nearest fault line runs just 60km from the nation's capital.

Given a lack of recent earthquake events, an understanding of earthquake risk and corresponding strategies to mitigate the impact of such events is lacking. A National Plan on Disaster Management (2010-2015) includes an Earthquake Management Plan and a National Earthquake Contingency Plan, which have been developed under the Ministry of Food and Disaster Management. These plans identify response and risk reduction activities with corresponding lead and support agencies. However, the plans lack the comprehensive vision of a national earthquake strategy, and a convincing demonstration of benefits, implementation, and controls. Furthermore, the institutional structure for multi-stakeholder engagement to deal with a problem as complex as urban earthquake risk is also lacking and the existing plans do not engage agencies and organizations in a sustainable way.

To respond to this critical gap in the management of disaster risk in Bangladesh, this project represents the second phase of a multi-phase national DRM program to build institutional capacity to mitigate the impact of earthquakes in the rapidly urbanizing cities of Bangladesh. The objective of the overall engagement is to develop a comprehensive approach to managing earthquake risk through a structured process of knowledge development, education, and planning that involves a wide range of stakeholders to increase engagement and ownership.

2. <u>**Scope Of Work**</u>

The objective of the engagement is to put in place the institutional infrastructure and competency to reduce long-term disaster vulnerability in Dhaka. It would address both the existing built environment as well as future development. The key output will be supporting the development of the organization within RAJUK and the Urban Resilience Unit (URU) to mobilize DRM mainstreaming and improving Dhaka urban resilience.

Description of the URU

Core to the success and implementation of component C of the Bangladesh Urban Resilience Project (URP) is institutional strengthening by the creation of a new organizational unit in RAJUK and termed as the Urban Resilience Unit (URU).

In addition to technical and scientific competencies, URU will have the laboratory and field equipment to undertake various structural and soil tests for determining and assessing the condition and capacities of building elements and the geo-technical environment. These include destructive and non-destructive in-situ testing and lab testing. This will provide essential data for tracking construction quality and establishing norms and standards to improve construction.

The URU will conduct and/or sponsor research, trainings, forums & workshops on technical topics for urban resilience, including: vulnerability and risk assessment, urbanization and urban resiliency of the cities with the consideration of institutional resiliency, social resiliency, infrastructural resiliency, cultural and environmental resiliency, earthquake engineering, construction standards and permitting, building codes and standards, risk-sensitive planning and their implementation, such as in land use, zoning, and in construction project development cycle (e.g. building permitting, construction supervision and monitoring, materials and soil testing, structural health monitoring).The outputs shall be taken to develop improved standards of construction in the country and promoting urban resilience. For this purpose, URU will be equipped with state-of-the-art training facility/academy develop, plan, conduct and manage a training program for construction and development professionals and practitioners.

Internal approval has been granted by RAJUK's management to create the Urban Resilience Unit (URU) and its director has been appointed. This project will support the setup, structuring, training and providing necessary facilities, resources, and equipment of URU. It would also support its core activities to ensure it sustainability. **The URU will then be absorbed into the RAJUK organization after the project period as an Urban Resilience Division (URD).**

Objectives of the Assignment

The objective is to encompass the development of competencies related to urban resilience such as vulnerability and risk assessment, urbanization and urban resiliency of the cities with the consideration of institutional resiliency, social resiliency, infrastructural resiliency, cultural and environmental resiliency, earthquake engineering, construction standards and permitting, buildings code enforcement, in-situ and laboratory construction material testing, specialized construction training, and risk-sensitive land use planning.

This engagement will fund activities related to providing support to the establishment of the URU within RAJUK to develop human and capital resources, both in number and capacity, within the agency to undertake urban resilience activities. In particular, the URU would oversee broad studies related to building and lifeline vulnerability and risk assessments, manage wide-ranging programs for vulnerability reduction, oversee the implementation of the Bangladesh National Building Code (BNBC) accreditation and code enforcement provisions ensuring **better dissemination, understanding and implementation** of building construction standards **among professionals in the construction industry.**

The URU is seen to play an important role to help RAJUK in mainstreaming DRM into its operations, functions, planning, policy and decision making. Within the project's lifetime, it is seen as the organization to coordinate and set up the **electronic construction permitting infrastructure and process, provide for the needed trainings for enforcement of BNBC and related development permitting process, and undertaking testing of construction materials to improve construction quality and assess structure vulnerability.** In the long term, the URU will develop to be the main arm for the construction permitting and building code enforcement process within Dhaka Region, in accordance with BNBC accreditation and code enforcement provisions.

The structuring and the development of URU within RAJUK will require close collaboration from the RAJUK leadership in establishing a sustainable structure, at the appropriate level within the organization to have the authority but also to exercise its responsibilities as indicated in its mandate. This engagement will assess the current state of the available capacities and resources, analyze the situation taken into account the best practices, develop the legal, administrative and organizational structure of the URU and the detailed definition of its mandate and activities within RAJUK's own institutional mandate. Through the implementation of these activities, RAJUK will ramp-up its structure, competence and capacities. The project will support this process administratively, technically and materially.
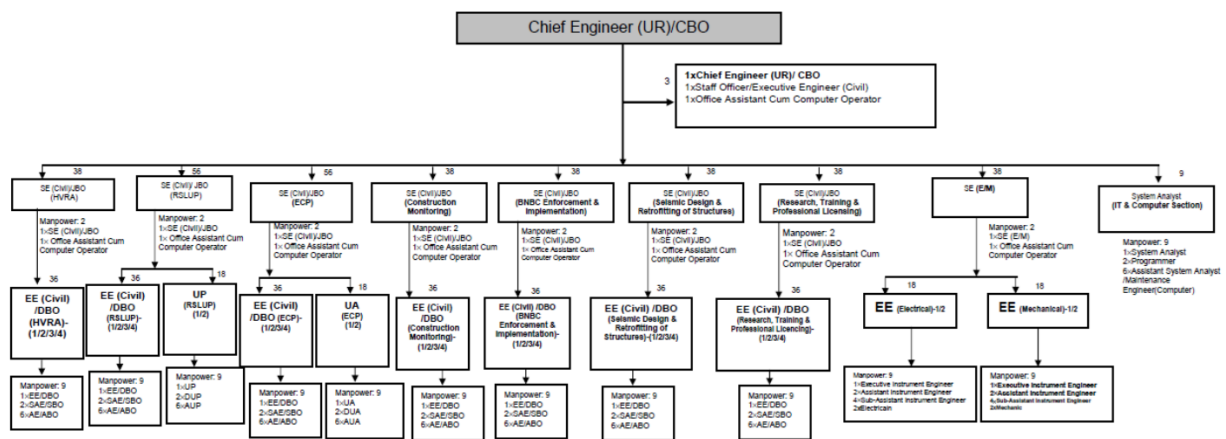
Figure 1. Initial organizational chart, core functions and manpower requirements of the URU

An initial organizational chart identifying the different core functions of the URU and projected manpower requirements are shown in Figure 1 above. The Figure above shows an indicative organogram composed of 342 permanent staff. **This organizational structure through an organizational analysis needs to be assessed, verified/upgraded and re-structured as necessary.** There should be administrative wing to look after the legal and administrative affairs of URU with the post of one legal expert.

To operationalize the URU, this turnkey engagement will support the following operations:

i) Feasibility studies and analysis of the current practices including
   a. Administrative and staffing organogram of RAJUK,
   b. Review act and rules and administrative bodies of all relevant authorities (environmental, DDM, DCC, ESCD etc)
   c. Administrative procedures,
   d. Zoning and staffing
   e. Building Construction Committees
   f. National committee for Urban Development
   g. Special Project Committee
   h. Work flows and charts
   i. Reporting structures
   j. Technical capacities and needs requirements
   k. Legal and Financial status

ii) Review and report international best practices similar to the case of URU and provide recommendations on the weaknesses, strengths and possible further improvements in the system with the consideration of following:
   a. Synchronize the existing administrative system and implementation process
   b. Review the outputs of all URP Components (B1, B2, C2, C3 and C4)

iii) Prepare a detailed report on the outcomes of the feasibility studies and recommendations on the outcomes reflecting the different scenarios and needs.

iv) Development of an effective organogram and organizational structure identifying the different core functions of the URU and projected manpower requirements for the URU in RAJUK;
   a. The organogram shall foresee the administrative wing and all the technical disciplines related to Urban Resiliency including but not limited to Urban planning, architectural, site safety, fire safety, workers safety, Construction monitoring and

BNBC enforcement and implementation unit, Demolition, plumbing etc.

v) Define the roles and responsibilities (with particular focus on both decision makers and field experts), inter-engagement processes and term of references for each position

vi) Define work Flow diagrams

vii) Define and propose recommendations for any changes or needs foresee in administrative, operations, institutions and legal frameworks

viii) Technical training and capacity building for URU staff. The RAJUK will be responsible for hiring the staff while the consultant will be responsible for supporting the institutional set up of the Unit (including development of the specifications for hardware and software requirements),

ix) The design of a community outreach program

3. <u>Tasks And Expected Outputs</u>

The consultant will be responsible for delivering an inception report that proposes how these operations of the project will be developed, validated, implemented, and sustained in the long term.

Upon agreement with RAJUK's PIU on the inception report, the consultant will engage into the project itself and deliver the following outputs under **following operations:**

Operation 1: Institutional design and Organizational Study

- **Study the institutional feasibility of the URU.** Review the initial organizational chart and human resource allocation diagram provided by RAJUK. Undertake an organizational analysis to provide the following elements: Structural and administrative setup of URU, organizational chart, positions, work flow process, reporting relationships, job descriptions, monitoring and evaluation, proposed classifications, performance evaluation attributes.
- Study similar institutions in developing countries that could be a model to the URU and where experience can be drawn from.
- Define the office operations including hardware, software needs specifications.
- Identify operational control procedures, monitoring and evaluation mechanism, and performance criteria
- Undertake internal consultations with RAJUK and the Ministry of Housing and Public Works to validate all assumptions, findings and recommendations.
- Suggest study tours for senior staff to examine operations and functions of similar technical governmental organizations.
- Development of an effective organogram and organizational structure identifying the different core functions of the URU and projected manpower requirements for the URU in RAJUK;
- Define the roles and responsibilities (with particular focus on both decision makers and field experts), inter-engagement processes and term of references for each position
- Define work flow diagrams
- Define and propose recommendations for any changes or needs for seen in administrative, operations, institutions and legal frameworks
- Submit draft and final reports.

- ***Operation 2: Design, conduct and assess a community out-reach campaign***
    - The Consultant should design a community out-reach aimed at raising awareness on disaster risk and particularly on earthquake risk. The campaign should be strategic in nature to target different audiences with appropriate messages.
    - Part of the community outreach campaign should be directed to the general public, mainly to disseminate basic information about earthquake risk and what to do before, during and after an earthquake. It should seek to be disseminated thru partnership with media and NGOs.
    - Another part should be directed towards professional organizations, mainly developers, garment industry, real-estate industry and tourism industry, utilities, service providers.
    - A third component should be addressed towards schools, teachers and educators
    - Develop and submit all relevant documentation related to the training including curriculum, evaluations and plan for improvements in the future.
    - The implementation of the campaign should be thru partners including media, NGOs, service providers and others. Appropriate collateral material should be designed in collaboration with partners. Evaluation measures should be established to assess the effectiveness of the Campaign.

Reference: *Information, Education and Communication Action Plan*, Bangladesh Earthquake Resilient Project (Phase 1), World Bank, February 2014.

Operations 3: Training and Capacity building to URU staff
These training and capacity building for URU staff will be conducted only after approval of the effective organogram and organizational structure and the related hiring process of all the members and staff is completed.

- In consultation with RAJUK and the PIU, formulate a capacity building program to train URU technical staff and managers on core topics related to urban resilience. The trainings conducted or formulized under other components should as well be taken as a reference.
- The training should consider the levels of responsibility and authority of the personnel as well as their job requirements. The training program should include objectives and benchmarks and indicate delivery methods (online, face-to-face, blended) and indicative cost per trainee.
- The technical training curriculum should include at the minimum the following topics:
    - Training of managers and decision makers on Project and Process Management, Project development process, managerial skills etc.
    - Training of Engineers on BNBC and Building code implementation
    - Training on Urban Resiliency and Sustainable development
    - Training on Hazard and Vulnerability Assessment (HVRA) and fundamentals of disaster risk management;
    - Training on Seismic Retrofitting and Rehabilitation of the existing structures and lifelines
    - Training on the Building code enforcement and electronic permitting system
    - Flood and seismic hazard and risk assessment;
    - Engineering and professional ethics

- Micro-zonation studies, Risk-sensitive land use planning; Geographical information system (GIS).
- QA and QC of the site construction including reporting and approval process
- The consultant should identify, organize and conduct sstudy tours for and propose educational opportunities that can be supported by the project
- Develop and submit all relevant documentation related to the training including curriculum, evaluations and plan for improvements in the future.
- The consultant will be responsible for monitoring and evaluation of URU operations and support to URU management to reach optimal functionality for a period of 1 year after organizational structure and the related hiring process of all the members and staff is completed.

Reference: *Training and Capacity Building Action Plan*, Bangladesh Earthquake Resilient Project (Phase 1), February 2014, World Bank.

4. Implementation Arrangements

The Consulting Firm will work closely with RAJUK's PIU and PIC and other relevant government ministries to coordinate activities and to develop the institutional rationales and support for the organizational study and for the justifications of the recommended organization for URU.

After the inception stage the Consulting Firm shall prepare a detailed schedule and task-flow diagram, which depicts the interrelationship of various tasks in **the** assignment which lead to the completion works and mechanism of coordination with the client and other related entities. This would be kept and update throughout the Project duration. A focal point will be identified at inception that would be the lead representative of Consulting Firm responsible for coordination and all interfaces with the Consulting Firm. The Project Manager of Consulting Firm will be the principal contact and will be expected to be readily available during project implementation. The Consulting Firm shall be responsible for all aspects of performance of services as set forth in the preceding sections of these TORs.

5. List of the Deliverables

The consultant will have following outcomes and deliverables for the project:

Operation 1: Institutional design and Organizational Study
   a- Deliver a **Situation Analysis and Feasibility report** that covers:
   - The current status of administrative body of RAJUK
   - Consultants assessment on the **initial organizational chart and human resource allocation diagram provided by RAJUK**
   b- Deliver **draft and final Institutional design and organizational study Report** covering:
   - The office operations including hardware, software needs specifications.
   - Operational control procedures, monitoring and evaluation mechanism, and performance criteria
   - Effective organogram and organizational structure identifying the different core functions of the URU and projected manpower requirements for the URU in RAJUK

- Defining the roles and responsibilities (with particular focus on both decision makers and field experts), inter-engagement processes and term of references for each position
- Defining work flow diagrams
- Recommendations for any changes or needs for seen in administrative, operations, institutions and legal frameworks

Operation 2: Design, conduct and assess a community out-reach campaign

a- Deliver **Community out-reach Campaign Report** covering:
   a. Awareness materials on disaster risk and particularly on earthquake risk targeting different audiences with appropriate messages.
   - Brochures/posters and documents to disseminate basic information about earthquake risk and what to do before, during and after an earthquake.
   - The targeted audiences should be professional organizations, mainly developers, garment industry, real-estate industry and tourism industry, utilities, service providers.
   - Appropriate collateral material should be designed in collaboration with partners.
   - Another component should be addressed towards schools, teachers and educators
   - Impact assessment and evaluation methods.

b- Develop and submit all **relevant documentation related to the training** including curriculum, evaluations and plan for improvements in the future.
   - Implement the Trainings and outreach campaigns with media, NGOs, service providers and others.

Operations 3: Training and Capacity building to URU staff

a- Deliver **Capacity Building Program Report** covering:
   - Objectives and benchmarks and indicate delivery methods (online, face-to-face, blended) and indicative cost per trainee.
   - Program and Curricula on training of URU technical staff and managers on core topics related to urban resilience
   - Impact assessment of the capacity development
   - Training manuals and course materials for the subjects identified
   - Design of the Trainings and ToTs

b- **Training of the URU staff** as per the scope of the ToR

c- **Conduct study tours** and propose educational opportunities at national and international level for high-level stakeholders (3 study tours for 5 staff)

d- **Monitoring and evaluation of URU operations** and support to URU management to reach optimal functionality
   - Prepare a final M&E report

6. Selection Procedure and Form of Contract

The firm will be selected following the World Bank's Guidelines: Selection and Use of Consultants by the World Bank for Operational Purposes and form of contract would be **Complex Lump Sum Contract.**

Minimum qualifications of the firm to be selected for the required assignment include:
- The lead firm is expected to have management consulting focus with competency in institutional arrangement studies, functional organizational analysis (including ITC) and business administration.
- Association with firms with similar expertise in Bangladesh is highly encouraged to facilitate consultations with government, data collection and validation of assumptions and findings.

7. Duration of the Assignment

Duration of the contract would be 30 months from mobilization. Setup of URU administrative structure with completed functional analysis is expected to be completed in no more than 15 months. The remaining term of the contract beyond the 15 months should be devoted to: a) Competency Training of URU technical Staff; b) Development of the outreach campaign, and c) monitoring and evaluation of URU operations and support to URU management to reach optimal functionality.

8. Staffing Requirements

The consulting Firms are encouraged to use the expertise available in Bangladesh to the extent possible. However, international experience is necessary to carry out the assignment. The Consulting Firms are free to propose a staffing plan and skill mix necessary to meet the objectives and scope of the services. Consulting firms are encouraged to make joint ventures or other types of contractual arrangement with other specialized firms as indicated in the previous section. Annexure-1refers to an indicative list of posts where the firms will propose their required man-months/position numbers but not limited to carrying out the assignment:

9. Reporting and Management of the Assignment

The assignment has been commissioned by the Government of Bangladesh. The consultant will report to RAJUK's PIU and the Ministry of Housing.

The project will be monitored and evaluated based on a result-oriented approach. The Consulting Firm is expected to set up milestones for the course of the project implementation.

Annexure-1
Composition of Consultant Team (indicative)
It is deemed that the consultant shall have to deploy following professionals during the contract to facilitate carrying out the task smoothly:

			PROFFESIONAL KEY STAFF		
#	**Position**	**Qualification**	**Task Assignments**	**No s**	**Man-Month h**
1	**Team Leader**	The team leader has to be internationally recognized expert having following qualifications: Masters or higher degree in Civil & Structural/Geotechnical/Earthquake Engineering, Disaster Risk Management or a relevant field from a leading university plus degree in business management, business administration or related fields would be considered competitive advantage with 20 years of experience in management consulting specializing in institutional and functional analysis and with demonstrated experience in similar projects where a multi-disciplinary team from business administration, business management, architectural and engineering are involved to undertake the project. Proven ability to operate effectively in complex bureaucratic environment, where strategic planning, problem-solving and ability to optimize resources drive progress and success. Global work experience, principally in developing countries is required. Experience working in	• Build, manage, and lead a team of experts and specialists with full competency to undertake the tasks of the project; • Take the lead in conducting the Organizational Study for the URU. • Manage strategic relationships with the Bangladesh Urban Resilient Project PCMU (Project Coordination and Monitoring Unit), Project Implementation Committee (PIC-RAJUK), Project Implementation Unit (PIU-RAJUK) and related ministries, agencies and organizations represented in these institutions. Respond to all requests and queries from these agencies with prompt responsiveness, accuracy and transparency. Attend meetings of these institutions if called upon and be prepared for constructive interaction. • Conduct with the team the necessary data collection and feasibility studies are required per	1	30

PROFFESIONAL KEY STAFF					
#	**Position**	**Qualification**	**Task Assignments**	**Nos**	**Man-Month**
		Bangladesh is a strong plus. Detailed organizational skills and in-depth focus management abilities and discipline are expected. Leadership qualities that fosters team work and collective problem solving, but impose rigor are recognized skills for the position. **General Experience: 25 years**	ToR for operationalizing URU. • Study the institutional feasibility of the URU. Review the initial organizational chart and human resource allocation diagram provided by RAJUK. Undertake an organizational analysis to provide the following elements: Structural and administrative setup of URU, organizational chart, positions, work flow process, reporting relationships, job descriptions, monitoring and evaluation, proposed classifications, performance evaluation attributes. • Study similar institutions in developing countries that could be a model to the URU and where experience can be drawn from. • Define the office operations including hardware, software needs specifications. • Identify operational control procedures, monitoring and evaluation mechanism, and performance criteria • Undertake internal consultations with RAJUK and the Ministry of Housing and Public Works to validate all		

#	Position	Qualification	Task Assignments	Nos	Man-Month
			PROFFESIONAL KEY STAFF		
			assumptions, findings and recommendations. • Development of an effective organogram and organizational structure identifying the different core functions of the URU and projected manpower requirements for the URU in RAJUK; • Define the roles and responsibilities (with particular focus on both decision makers and field experts), inter-engagement processes and term of references for each position • Define work Flow diagrams • Define and propose recommendations for any changes or needs for seen in administrative, operations, institutions and legal frameworks • Maintain a constructive and collaborative working environment with RAJUK, other concerned government agencies, and other stakeholders involved in the project; • Ensure all major decisions and assumptions are reviewed, discussed, understood and supported by RAJUK, the PIU members and		

	PROFFESIONAL KEY STAFF				
#	**Position**	**Qualification**	**Task Assignments**	**No s**	**Man-Month h**
			other relevant stakeholders; • Establish a transparent project monitoring and reporting process focused on accuracy, target completions and on team problem-solving; be aware that members of the team come from different backgrounds where terminology and concept mean different things to different people. Ensure proper and effective communication within the team, where linkages are understood. • Ensure the project management control is geared towards proactively solve issues, adapt to new situations, shift resources, and communicate effectively		
2	**Project Manager**	The Project Manager has to be International expert having following qualifications: Masters or higher degree in Civil & Structural/ Geotechnical/Earthquake Engineering, Disaster Risk Management or a relevant field from a leading university plus degree in business management, business administration or related fields would be considered competitive advantage.20years professional experiences managing major complex	• Assist Team Leader in all his task and duties • Plan and lead the day-to-day activities of the project • Plan and coordinate all contractual obligations, internal and external coordination, preparation of tasks, monitoring, communication and reporting • Develop and supervise a systematic and auditable technical documentation system for the entire documentation of the	1	30

			PROFFESIONAL KEY STAFF		
#	**Position**	**Qualification**	**Task Assignments**	**No s**	**Man-Mont h**
		multi-sectoral, multi-disciplinary projects of similar scope including experience in developing countries; Understanding of functional analysis, organizational studies in past projects; exposure to building construction and renovation is a strong plus. Excellent organizational, planning, communication, and conflict resolution skills; Fully aware of project management tools and methods; Leadership qualities. **General Experience: 25 years**	project including all collected data, meetings minutes, project planning and monitoring documentation, financial reports, and other project relevant documentation. • Develop a secure web-based file sharing system for the project with level of authorities for access to data as established by the Project Management Team • Manage meetings with PIU and other government agencies including development of the agenda and follow-ups. • Problem-solve potential issues; manage resources effectively. • Review expenditures and financial statements. • Review consultants' reports; ensure satisfactory participation from all team members; • Assume responsibility of schedule, project coordination meeting; document preparation, and reporting • Promote a constructive and productive environment within the project team.		

PROFFESIONAL KEY STAFF					
#	Position	Qualification	Task Assignments	Nos	Man-Month
3	**Practice Leader: Legal and Institutional Arrangements Experts (1 International and 1 National)**	Master's Degree in Law, Business Administration, Public Policy, Engineering Management, or related fields Experience with legislative setups for construction, real-estate, development and design, including regulatory regimes and institutional arrangements. Experience in developing countries and particularly in Bangladesh is mandatory. Experience with government relations, government protocols, policy development models and structures. Experience preparing documentation for legislative agendas and reviews. Familiarity with government approval process of accreditation programs, accreditation boards or endorsement processes in Bangladesh is highly desirable. Minimum of 20 years of experience in the Specific field. **General Experience: 25 years**	• Assist Team Leader in the development of the parameters of the Operetionalizing the URU in RAJUK focusing on the legislative regulatory and institutional frameworks, government regulations, government relations, government reviews and approvals, and government protocols. • Assist the Team Leader in the preparations and conduct of the consultations, meetings • Support the preparation of various reports and deliverables, focusing mainly on the legislative, institutional and governmental issues. • Assist the Team Leader in development of an effective organogram and organizational structure identifying the different core functions of the URU and projected manpower requirements for the URU in RAJUK; • Assist the Team Leader in defining the roles and responsibilities (with particular focus on both decision makers and field experts), inter-engagement processes and term of references for each position • Define work Flow	2	30

PROFFESIONAL KEY STAFF					
#	Position	Qualification	Task Assignments	Nos	Man-Month
			diagrams • Define and propose recommendations for any changes or needs for seen in administrative, operations, institutions and legal frameworks • Assist Team Leader in establishment of a platform for continuing education and the outreach campaign • Support the overall project management.		
4	**Human and Institutional Capacity Development Expert(1 International and 1 National)**	One of the expert has to be internationally recognized expert having following qualifications: Master's degree in business/public administration, education, applied behavioral sciences, or a related field, such as human resource management, industrial and organizational psychology, or economic and political development Minimum 20 years of experience in sector assessment, strategic planning, project management, institutional capacity development programs, program design, monitoring and evaluation; relevant experience in investment or policy-related training programs a plus Strong working knowledge of governmental organizations human and	• Develop and implement capacity building strategies and annual work plans • Conduct training needs assessments, and perform analysis of gaps and strengths, weaknesses, opportunities, and threats (SWOT) among governmental departments and agencies, civil society organizations, and business associations • Oversee and supervise training and technical assistance to public and private sector stakeholders • Assist key RAJUK and URU departments to align staff skills against the needs of relevant agriculture subsectors by drafting scopes of work and departmental	2	30

PROFFESIONAL KEY STAFF					
#	**Position**	**Qualification**	**Task Assignments**	**Nos**	**Man-Month**
		institutional capacity development model Experience providing performance assessments, performance solutions design, and performance monitoring and management system design Demonstrated experience in training needs, gap, and SWOT analysis Excellent communication, management, planning, and coordination skills, including coordinating complex programs and working with multidisciplinary teams Established working relationships with various stakeholder organizations in Sindh Demonstrated leadership, versatility, and integrity **General Experience : 25 years**	• assessments • Coordinate administrative management and participant training teams • Create international competitive institutional capacity development studies for relevant subsectors • Develop strategies for gender-specific interventions, including special incentives packages to support gender integration into the agriculture sector and relevant subsectors • Ensure integration of gender equity into all aspects of capacity development activities •		
5	**Knowledge Management and Outreach Expert(1 National)**	The Practice Leader has to be nationally recognized expert having following qualifications: Master's degree in International Development, Communication, Education, Engineering Construction Management or related social science fields. 15 years Experience leading training programs and managing knowledge databases in collaboration with various institutions	• Support the Team Leader and Project Manager in the activities of the project related to education, training, community relations, communication, consensus building and outreach, in particular: • Design, plan, manage and supervise the conduct of all training activities related to the project • Design the continuing education platform, its	1	15

PROFFESIONAL KEY STAFF					
#	Position	Qualification	Task Assignments	Nos	Man-Month
		Experience in software application training Experience with various training and educational techniques, and the use of online training resources Structured, organized and excellent listener **General Experience: 20 years**	operations, content, resources, hardware and software requirements • Take the lead in the design of the outreach campaign and provide input to solidify the sustainability parameters of the project. • Participate in the development of the Professional Accreditation Program to provide input from the user's perspective • Contribute to the development of relevant documentation and deliverables • Prepare training curriculum considering the various users and the diversity in competency and responsibilities • Review the on-line PAP Portal for efficiency and ease of use. • Lead the discussions and training of the Delivery Institutions; setup the criteria for selection and performance. • Validate the training curriculum and schedule with RAJUK's leadership and other experts as identified by RAJUK PIU. Adjust accordingly. • Put in place a team of experts to serve as subject matter experts		

#	Position	Qualification	Task Assignments	Nos	Man-Month
			and a team of training facilitators • Take an active role in the pilot test to evaluate efficiency of training, testing methods, and overall delivery approach. • Contribute to the completion of deliverables and reports as indicated by the Team Leader.		
TOTAL				**7**	**135**