

## Urban Sanitation Research Initiative

# RESEARCH CALL

## Analysis of citizen and decision-maker attitudes to freshwater pollution in Bangladesh cities as a basis for more effective regulation

13<sup>th</sup> February 2018

This research project is jointly commissioned by the [REACH](#) global research programme (led by Oxford University) and the [Urban Sanitation Research Initiative](#), (a 2017–2020 research programme led by Water & Sanitation for the Urban Poor, WSUP). The project will be managed by the Urban Sanitation Research Initiative team with single point-of-contact, but should aim to align with the broad vision and specific requirements of both research programmes. The research will investigate citizen and decision-maker attitudes to pollution of watercourses in urban environments in Bangladesh, and attitudes towards regulation to reduce such pollution. We require detailed consideration of two specific types of pollution, and of their associated regulation, namely a) faecal contamination arising from widespread discharge from septic tanks, pit latrines, and hanging toilets to surface drains and water bodies and to subsurface water bodies, and b) industrial discharge to surface and subsurface water bodies. However, we would expect detailed consideration of these specific issues to be embedded within a wider framework of analysis of urban freshwater pollution, and its regulation, in Bangladeshi cities.

***Maximum budget under this Call:*** GBP 80,000

***Bids due:*** Before UK 1700 hours on 13<sup>th</sup> March 2018.

### 1 About the commissioning partners

This research project is jointly commissioned by [REACH](#) (a 2015-2022 research programme led by Oxford University) and the [Urban Sanitation Research Initiative](#) (a 2017–2020 research programme managed by Water & Sanitation for the Urban Poor). Both research programmes are core-funded with UK aid from the UK government. This research project will be managed by the Urban Sanitation Research Initiative team with a single point-of-contact, but should aim to align with the broad vision and specific requirements of both research programmes.

### **1.1 REACH: Improving water security for the poor**

REACH is a global research programme to deliver water security for the poor by delivering world-class science that transforms policy and practice. Rapid urban growth, unregulated pollution from industry, extreme floods and droughts, lack of reliable and safe drinking water, and increasing damage to water ecosystems threaten economies and undermine the lives of the poor. However, better evidence is needed to guide institutional and infrastructure investments which unlock growth opportunities and help people move out of poverty.

The REACH programme will improve water security for over five million poor people by generating new evidence on water security through an innovative, interdisciplinary, risk-based approach; establishing science, practitioner and enterprise partnerships to ground research in approaches that will benefit the poor; building capacity and networks for the next generation of water managers and scientists in Africa and South Asia.

Our research is focused on fragile states in regions where water security challenges are greatest and poverty most acute. REACH has core research programmes across eight Water Security Observatories in Bangladesh, Ethiopia and Kenya to implement in-depth interdisciplinary research on water security and poverty. In each observatory, we are carrying out an in-depth, long-term and interdisciplinary study on water security and poverty.

The [observatory](#) based in Dhaka, Bangladesh, aims to support the Government of Bangladesh's ambition for industrial growth, whilst minimising environmental damage and public health impacts, particularly for the poor relying on rivers for drinking, cooking, washing and bathing. This will be achieved through analysing water quality risks and their impact on human health, as well as exploring the linkages between industrial growth, poverty reduction, and water security. New models and tools will enable regulatory agencies and industry to quickly assess the effectiveness of pollution reduction initiatives, and help the government understand the likely outcomes of different economic and environmental policies and programmes, particularly for the poor. The research team consists of academics from Bangladesh University of Engineering and Technology, University of Dhaka and University of Oxford.

For more information, see <http://reachwater.org.uk/>.

### **1.2 The Urban Sanitation Research Initiative**

WSUP is a not-for-profit company that helps transform cities to benefit the millions who lack access to water and sanitation. We were created in 2005 as a response to the unprecedented urban explosion that has left cities unable to provide basic services, such as access to a toilet or drinking water, to low-income communities. We are based in the UK with offices in six countries in sub-Saharan Africa and Asia. Since inception we have helped nearly 15 million people access better water and sanitation services. For more information about WSUP's vision and approach, see [www.wsup.com](http://www.wsup.com)

This research is being commissioned under the WSUP-led Urban Sanitation Research Initiative. The Urban Sanitation Research Initiative is a 2017–2020 research initiative currently focused in Bangladesh, Ghana and Kenya. The primary aim of this initiative is to deliver research that builds national evidence bases around pro-poor urban sanitation, and that drives policy change and wider sector change in the three focus countries and globally.

Within this wider initiative, the Urban Sanitation Research Initiative Bangladesh is designed to feed into the national evidence base around pro-poor urban sanitation in Bangladesh, helping to drive policy change and wider sector change. The Urban Sanitation Research Initiative Bangladesh is managed by WSUP in strategic partnership with the Centre for Water Supply and Waste Management (ITN – BUET) and the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b).

The Urban Sanitation Research Initiative focuses on five broad areas: 1) sanitation businesses and market development; 2) institutional frameworks and capacity; 3) sanitation models, user behaviour, and user experience; 4) public finance and sanitation planning; and 5) regulation and smart enforcement. This Call is in Area 5.

For more information about the vision and aims of the Urban Sanitation Research Initiative, and for information about other Calls, see [www.wsup.com/research](http://www.wsup.com/research)

### **1.3 Sector influence aim**

*To understand the attitudes of Bangladeshi decision-makers on urban freshwater pollution and contribute to the development of an effective and politically viable regulatory model for discharge of faecal sludge and industrial pollutants.*

## **2 Nature of the research**

### **2.1 Background**

Pollution of urban watercourses is widespread and severe in Bangladeshi cities, as a result of inflows including municipal wastewater, faecal waste from domestic sanitation facilities, and industrial discharges. Diverse regulations to control pollutant discharge exist, but are weakly enforced. Development of effective and workable “smart regulation” approaches will require understanding of social and political attitudes towards urban freshwater pollution, such that regulatory authorities can work towards a regulatory model that is effective but at the same time politically viable. In this context, this research project will investigate citizen and decision-maker attitudes to pollution of watercourses in urban environments in Bangladesh, and attitudes towards regulation to reduce such pollution.

### **2.2 Aims, approach and design**

We require detailed consideration of two specific types of pollution, and of their associated regulation, namely **a)** faecal contamination arising from widespread discharge from septic tanks, pit latrines, and hanging toilets to surface drains and surface and subsurface water bodies, and **b)** industrial discharge to surface and subsurface water bodies. However, we would expect detailed consideration of these specific issues to be embedded within a wider framework of analysis of urban freshwater pollution, and its regulation, in Bangladeshi cities. This research must be carried out in Dhaka or a sub-division of Dhaka, but bidders may include two or more cities alongside Dhaka if deemed useful and deliverable within the maximum budget. Bidders are not constrained in their choice of additional cities as long as their proposal can provide clear justification for the towns/cities selected.

We would expect the research to focus on attitudes and regulation, not pollution per se; in line with this, we would expect the necessary understanding of pollutant flows to be probably based on collation of existing data (including data already collected under the REACH programme). Bidders should outline how they will collate such data. We note that the primary focus should be on pollutants that constitute a direct and major threat to urban health, most notably faecal pathogens and toxic compounds of industrial origin (including metals and toxic organic compounds). However, it is recognised that other pollutants (including eutrophic pollutants) may have a strong influence on attitudes and may be incorporated.

We would likely expect this research to follow a phased design, with **1)** initial literature review and initial stakeholder interviews to provide grounding information; followed by **2)** detailed analysis of citizen attitudes and decision-maker/politician attitudes to freshwater pollution in its different forms, including domestic faecal contamination and industrial discharges (both will require specific analysis of attitudes towards different types of pollution, e.g. faecal pathogens, heavy metals, organic compounds, whether particular organoleptic properties are considered more polluting than others, etc.) and to their social acceptability and regulation (including comparative work that assesses whether attitudes of citizens and decision-makers differ, and whether attitudes vary according to different types of pollution); leading to **3)** structured research (based for example on negotiation games) to identify ways forward for smart regulation, which should take account the political context and how this will effect implementation of any proposed regulation; and potentially (though not necessarily) **4)** evaluative/operational research exploring the effectiveness of a particular pilot-scale or full-scale regulatory approach or approaches.

This 4-phase model is here outlined as a possible approach, and other approaches which meet our aims for this research will be considered. This research should be explicitly viewed as **research-into-policy**, with pro-active strategies applied at all stages to increase the likelihood that this work will have a tangible and significant influence on policy; among other elements, this will require detailed understanding of the political and institutional barriers to effective regulation, and detailed analysis of ways in which these might be overcome.

### **2.3 Terms and Conditions**

The following are core requirements for work carried out under the Urban Sanitation Research Initiative:

- 1) Research must fully meet relevant research ethics requirements:** All research must be carried out in compliance with research ethics standards as rigorous as would be applied in a UK setting, and in compliance with the law and with best practice in the country or countries in which research is carried out.
- 2) Research design should pay careful attention to gender equality/equity considerations:** Bidders should explicitly ensure that their proposed design, analysis and research-into-policy work is taking full account of gender equality and equity.
- 3) Research-into-policy should be considered a core element:** Research-into-policy should be considered a core element at all levels and stages of research design; not an after-thought once the “real research” has been completed.

For more detailed explanation, see the Core Requirements Form attached as Appendix A, which must be completed by all bidders and submitted with the bid (see Section 8).

## 2.4 Deliverables

Assuming an approach along the lines of that suggested in Section 2.2, the following deliverables are required:

**a)** an inception report (about 5 pages) detailing the methodology to be followed, within 4 weeks of project start; **b)** a literature review; and **c)** the main final report, written as a research paper in the publication format required by a named peer-reviewed journal [see section 2.5 for schedule for submission of deliverables].

In addition, we require **d)** a brief monthly email update on progress (bulletpoint format is sufficient), and **e)** short (2-5 page) six-monthly reports on progress (so two such reports under the present contract).

The inception report (a) and the six-monthly report (e) must include specific short sections indicating how the Core Requirements (Appendix A) are being met. Bidders may also choose to offer additional deliverables, potentially including i) a second research paper, or ii) deliverables (policy briefs, other documents, powerpoints, workshop presentations, blog posts or photos or videos for the REACH and Urban Sanitation Research Initiative websites, etc.) designed for in-country or international communication. Deliverable (c) is a research paper, to be written as a journal article in the format of a named journal (not as a report for WSUP, REACH or Bangladeshi stakeholders).

All deliverables should be written and laid out to publication-ready standard, with strong attention to clarity of structure, quality of wording, and professional layout; reports of poor quality will not be accepted.

If the researcher judges it necessary, WSUP/REACH will respect embargo on reporting findings to be published in a peer-reviewed journal. However, this is a policy influence programme, and WSUP/REACH will expect to be able to make public headline findings (typically understood to mean any content that is included in the Abstract, though with re-wording, and potentially including basic methodology detail and headline findings not included in the Abstract but required for reasonable understanding of the study's central findings) before journal publication. We expect a mutually constructive approach on this: WSUP/REACH recognising that the researcher may not be able to make full findings public before journal publication, the researcher understanding that WSUP/REACH must have the option to immediately disseminate headline findings to key audiences. One approach which bidders may find useful is to commit to delivery of a 1-3 summary report on findings for free use by REACH, WSUP and partners: this approach will ensure that the researcher maintains control over precisely what elements are made public and precisely which should be considered embargoed until journal publication (though this does not rule out the possibility of WSUP/REACH requesting additional information be made public if the summary omits detail necessary for headline understanding).

## 2.5 Schedule

The timeline envisaged for this work is indicated in the table below. Bidders may propose timeline adjustments, with reasoned justification and in accordance with their proposed approach if significantly different to that suggested in Section 2.2; however, timely start-up and delivery will be one of the bid evaluation criteria (see Section 8.2). Please note that when we refer to drafts in the below schedule,

these should be fully complete and finalised texts (not incomplete texts pending completion before final submission).

<b>Date</b>	<b>Milestone/deliverable</b>
<i>Before UK 1700 of 13<sup>th</sup> March 2018</i>	<i>Bid submission</i>
<i>26<sup>th</sup> March 2018</i>	<i>Start date</i>
<i>16<sup>th</sup> April 2018</i>	<b>Inception report</b>
<i>14<sup>th</sup> May 2018</i>	<b>Literature review</b>
<i>Implementation phase</i>	<i>Print and other dissemination deliverables to be proposed by bidder; see guidance above; note our preference for phased deliverables in accordance with a phased project design</i>
<i>13<sup>th</sup> March 2019</i>	<b>Final deliverables received</b> , having responded adequately to review/improvement comments from WSUP, REACH and other possible reviewers on earlier drafts of report (the deliverables schedule proposed by the bidder should specify draft report submission dates at least 4 weeks prior to final deadline). Where a deliverable is an article for submission to a peer-reviewed journal, this should be submitted to WSUP and partners in draft and final form. <sup>1</sup>

We stress that this is a 12-month project with no possibility of costed or no-cost extension, and research design will need to take this into account.

### 3 Team profile

We are open to different team structures for this work. Effective delivery of this research will almost certainly require a Bangladeshi partner, but we are open to bids led by Bangladeshi or non-Bangladeshi institutions, and will identify the winning bid primarily on the basis of the quality of the proposed methodology. We require a single lead through which all contracts, negotiation and invoicing should be managed.

### 4 Intellectual property

This is an academic research contract, and as such the researchers will retain full intellectual property rights for this research, subject to the deliverables requirements indicated above, but with full rights granted to WSUP/REACH immediately and in perpetuity to reproduce and use the findings of the research as WSUP/REACH deem fit, including in WSUP/REACH publications drawing on the research findings, and including by partners of the Urban Sanitation Research Initiative Bangladesh and REACH.

<sup>1</sup> We do not require research papers to be submitted to the named journal by the specified deliverable date; but we will non-contractually expect publication, and will favour bidders who have a significant academic publication record and own-incentives for prompt journal publication. We (WSUP, REACH and partners) expect to have full opportunity, with sufficient time allocation, to review and respond to research papers in journal article format; we reserve the opportunity to withhold corresponding payment until we are satisfied with the quality of each paper, which may require no modifications, minor modifications, or major modifications. Our focus will be on methodological/intellectual quality and readability; if there is any disagreement about interpretation of findings and questions of judgement, we will request that our views be given sensible consideration, but in the final analysis respect the researchers' academic independence.

In any use by WSUP/REACH or partners of findings arising from this research, the researchers will be duly credited. For full details of intellectual property rights, bidders should review WSUP's standard Research Agreement, available on request, and the Terms and Conditions of REACH Catalyst Grants, also available on request. [See also comments above under Section 2.4, in regard to publication of headline findings by WSUP and partners before journal publication.]

## **5 Reporting and liaison**

The Task Manager for this work will be Rosie Renouf, WSUP Research Officer. Close liaison will also be expected with Farzana Begum (WSUP Bangladesh Research & Policy Lead), Guy Norman (WSUP Director of Research & Evaluation), and Katrina Charles (Co-Director of the REACH programme at Oxford University).

## **6 Contract terms**

A standard WSUP Research Agreement format will be used, subject to the Researcher's agreement with the term. Where the bidder is a consortium, a contract (Research Agreement) will be signed with a single prime; we cannot consider multiple contracts under a single Call.

## **7 Payments**

### **7.1 Payment schedule**

Payment will be 20% on contract signature, 50% on delivery of substantive midterm deliverables [to be negotiated with bidder] by a date in 2018 [to be negotiated with bidder], and 30% on acceptance by WSUP (in close consultation with REACH) of final version of deliverable (c) of acceptable quality. All payments will require prior invoicing.

### **7.2 Budget**

Up to GBP 80,000, inclusive of VAT (sales tax) or other taxes; this amount will be expected to cover all costs, including any sub-contracting of staff, any travel costs, and the full costs (including venue and participant travel costs as required) of any workshops or similar meetings; any sub-contracting of staff; and the full costs (travel and time) of any visits to WSUP/REACH offices in Bangladesh or (if judged necessary and included in the proposal) in London/Oxford. Over and above this budget, we will additionally consider bearing a cost of up to GBP 1,500 for journal publication, if the selected journal/s for publication of this research require payment for open-access; this will be subject to specific negotiation with the selected bidder (likely including a time-limit of article acceptance for publication within 6 months of the termination of this contract).

## 8 Bidding procedure

### 8.1 Bid format

Bid format is designed to make bidding relatively easy, with a focus on the proposed methodology. Bids should be submitted to [erl@wsup.com](mailto:erl@wsup.com) before UK 1700 hours (5 pm) of 13<sup>th</sup> March 2018. We stress the importance of adhering strictly to the instructions below, including word counts; we do not expect to receive long standard texts detailing bidders' previous experience, over and above the requirements indicated.

The bid document should contain only the following numbered sections:

- 1) **Name of lead bidding organisation**
- 2) **Name and email of primary contact**
- 3) **Brief summary of relevant experience of lead organisation and other participating organisations or key individuals, indicating and describing 3 recent most-relevant projects (max 750 words)**
- 4) **Statement of the justification for and aims of this research as expressed by the bidder.** We are interested primarily in academic justification, not ethical justification (*max 300 words*)
- 5) **Statement of the approach and methodology to be used (max 750 words).** This statement can include decisions left open pending more detailed analysis, but we encourage bidders to develop a strong methodology (including clear statement of the duration and likely scheduling of all work including in-country work). [See also Section 2.3 and Appendix A.]
- 6) **Statement of the available start-up date and anticipated final completion date.** See Deliverables section.
- 7) **Statement of anticipated day allocations of all participants in the research.** Include any sub-contracted participants, with participants named as far as is possible.
- 8) **Summary budget breakdown in tabular form.** Clearly indicate total budget (maximum GBP 80,000).
- 9) **Indication of first-choice named open-access journal/s for publication of this work.** Please indicate any requirement for payment for open-access.

You should also separately attach the following two documents:

- A) **Up to three CVs** including a) **the lead researcher** (i.e. person who will take primary responsibility for design and management oversight of this research, and for research journal publication) and b) **the person with highest allocation of days.** [*This may in some cases be the same person.*]
- B) **A completed copy of the Core Requirements Form:** see Appendix A.

**In summary: your submitted bid should comprise 2 documents plus 1-3 CVs.**

Please name your files as follows, where XXXXX is a single-word no-spaces summary bidder name (e.g. JENKINSON, CUNIKRI, URBANRT) of up to 10 letters:

XXXXX-bid  
XXXXX-core-requirements-form  
XXXXX-CV1 (etc)

## 8.2 Bid scoring criteria

Bids will be scored on the following criteria:

CRITERION	Points
a) Adherence to requirements for bid format and demonstration of clear writing/formatting skills	10
b) Quality and appropriateness of research team, as evidenced by Bid Sections 3, 7 and CVs	20
c) Strength of understanding of the research concept, and strength of methodology, as evidenced by Bid Sections 4 and 5	30
d) Demonstration that this research will effectively meet the core requirements, as evidenced by the Core Requirements Form (Appendix A)	20
e) Rapid start-up and commitment to deadlines, as indicated by Bid Section 6	10
f) Value for money	10
<b>TOTAL</b>	<b>100</b>

## 8.3 Pre-submission consultation

We are very happy to respond to clarification queries of any sort prior to bid submission: please email [erl@wsup.com](mailto:erl@wsup.com) before UK 1000 hours of 2<sup>nd</sup> March 2018. We would expect most clarification queries to come to us earlier than this. Where we consider that the response to a query should (for reasons of fairness) be shared with all bidders, we will do so by emailing all bidders who have already contacted us to express an interest in bidding: so if you want to be included in any such mail-out, please let us know promptly.

## Appendix A: Core Requirements Form – Urban Sanitation Research Initiative

As indicated in Section 8.1, all bids should include a completed copy of this Core Requirements Form, which asks you to briefly clarify how your proposal will meet the three core requirements of research under the Urban Sanitation Research Initiative, as outlined in Section 2.3.

### Requirement 1: Research must fully meet relevant research ethics requirements

All research must be carried out in compliance with research ethics standards as rigorous as would be applied in a UK setting, and in compliance with the law and with best practice in the country or countries in which research is carried out. We note that some types of research (*for example, a study involving invasive treatments or biopsy sampling of human subjects*) will have extremely stringent research ethics requirements; other types of research (*for example, a desk study of institutional frameworks*) will have minimal research ethics requirements, beyond the need for due rigour, balance and consultation, and informed consent in any interviews; other types of research (*for example, a study involving household survey to collect information about slum communities*) will have research ethics requirements intermediate between these two extremes. We note also that researchers must take full responsibility, at the bidding and research implementation stages, for ensuring that relevant research ethics requirements are duly met, in letter and in spirit.

**QUESTIONS YOU NEED TO ANSWER:** How will you ensure that your research is carried out in compliance with research ethics standards as rigorous as would be applied in a UK setting, and in compliance with the law and best practice in the country or countries in which research is carried out.

write here, maximum 150 words (please adhere strictly to this maximum word count)

### Requirement 2: Research design should pay careful attention to gender equality/equity considerations

Bidders should explicitly ensure that their proposed design, analysis and research-into-policy work is taking full account of gender equality and equity. This is NOT a tick-box requirement for “including gender” in all research (indeed, bids may be scored down for “including gender” in tick-box ways which unhelpfully divert the research from its primary focus). Rather, our goal is to ensure that all bidders demonstrate that they have given serious thought to the possible implications of their research for women and girls, and include gender considerations in appropriate ways where this is important to exploration of the primary research question/s.

i) If this research in any way develops, or feeds into development of, a sanitation technology, sanitation service delivery model or sanitation policy, then this should be done in ways that ensure that that technology or model or policy fully meets the needs of women and girls; specific requirements of women and girls (including, but not restricted to, menstrual hygiene management and safety after dark) should be given due attention.

ii) If this research in any way assesses sanitation service quality, or recommends ways in which sanitation service quality should be assessed, then this should be done in ways that fully explore and disaggregate possible differences in sanitation service quality as experienced by women and girls and by men and boys; again, specific requirements of women and girls should be given due attention.

iii) If this research in any way uses or promotes some form of community consultation or expert consultation, then this should be done in ways that ensure that women’s voices are heard as loudly as men’s.

iv) More generally, researchers should interrogate their designs to consider gender implications in all respects and at all levels: for example, a WTP study might (or might not) find it relevant and useful to explore whether WTP differs between women and men; an organisational capacity study might (or might not) wish to explore

whether women are represented in high-level decision-making. Again, we stress that we do not require tick-box “inclusion of gender” in all projects; rather, we require that bidders give serious thought to possible gender implications, and include gender-disaggregational elements or other gender-related considerations in their design and analysis where this is important to exploration of the primary research question/s.

**QUESTIONS YOU NEED TO ANSWER:** In what ways are gender considerations relevant to your proposed design, analysis and research-into-policy work? If you have included gender-disaggregational elements or other gender-related elements in your design, please briefly list these elements.

write here, maximum 150 words (please adhere strictly to this maximum word count)

### **Requirement 3: Research-into-policy should be considered a core element**

**Research-into-policy should be considered a core element at all levels and stages of research design; not an after-thought once the “real research” has been completed.** Bidders should demonstrate that they have given serious thought to policy influence and policy translation of their findings: this may include [*among other possible elements*] **a)** appropriate consultation at the start-up phase, to ensure that key actors are “on board”, or at least that their needs and attitudes have been meaningfully taken into account; **b)** detailed analysis at the design stage of policy context and policy-influence aims and challenges, with consideration of relevant specific aspects such as “windows of opportunity”; **c)** detailed analysis of how in-country actors might need to be involved in the research and/or its subsequent dissemination, in order to maximise chances of policy influence outcomes; **d)** due consideration of dissemination of methods and findings throughout the project, not just at the end; and **e)** inclusion within the team of individuals with specific responsibility for editing to ensure high-quality text. Larger projects may choose to include individuals with specific responsibility for policy translation. We note that WSUP Research & Policy Leads in each of the research countries will expect to be closely involved in research-into-policy work, and you can depend on some support in this area: this can reasonably include WSUP responsibility for preparation of non-academic publication materials summarising key aspects of aims, methodology and eventual findings. [*Here we draw attention to Section 8.2, which states i) that any workshop events included within your bid must be fully funded from your budget, but ii) that WSUP will consider requests over and above budget to cover the costs of open-access academic publication.*]

**QUESTION YOU NEED TO ANSWER:** In what ways does this project ensure a pro-active research-into-policy focus?

write here, maximum 150 words (please adhere strictly to this maximum word count)

Please submit a completed copy of this form attached as a separate file to your bid.