



Designing and delivering research-into-use programmes in the WASH sphere

Experience from SHARE, REACH and the Urban Sanitation Research Initiative

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Delivering high-quality research can be challenging. But achieving research uptake – impact on policy or other aspects of the “real world” – is enormously challenging. In low-income contexts the barriers to achieving change can seem profound, in view of economic and capacity limitations. In fact, achieving policy change may not necessarily be more difficult in low-income contexts than in wealthier contexts (for example, Rwanda and Kenya outlawed plastic bags almost overnight, whereas even the most ambitious EU countries set targets 3-5 years into the future). Nonetheless, it’s clear that using research to drive meaningful change is far from straightforward.

This Discussion Paper considers the experience of three ongoing research-into-use programmes: we identify the major challenges we have faced in achieving research uptake, and discuss strategies we are using (or that we might use in future) to overcome those challenges.

All three programmes are core-funded by the UK Department for International Development (DFID):

Sanitation and Hygiene Applied Research for Equity (SHARE) “contributes to achieving universal access to effective, sustainable and equitable sanitation and hygiene by synthesising and generating new evidence to improve policy and practice worldwide”. Duration: 2010–2020. Core funding: £17m. Lead organisation: the London School of Hygiene & Tropical Medicine. 6 focus countries: Bangladesh, India, Kenya, Malawi, Tanzania, Zambia. <http://www.sharersearch.org/>

REACH “is a global research programme to improve water security for millions of poor people in Asia and Africa”. Duration: 2015–2022. Core funding: £15m. Lead organisation: University of Oxford. 3 focus countries: Bangladesh, Ethiopia, Kenya. <https://reachwater.org.uk/>

The Urban Sanitation Research Initiative “is a research programme designed to drive pro-poor sector change in urban sanitation in Bangladesh, Ghana, Kenya and globally”. Duration: 2016–2020. Core funding £4m. Lead organisation: Water & Sanitation for the Urban Poor (WSUP). 3 focus countries: Bangladesh, Ghana, Kenya. <https://www.wsup.com/research/>

All three programmes are around water services, water resources and/or sanitation, and all are centrally focused on equity and pro-poor change. But the three programmes differ in their precise scope and aims, and also in diverse aspects of partnership structure and approach to research design, management and delivery. We will not explore these differences in detail in this Discussion Paper, except as they relate specifically to research uptake.

Although different in significant respects, these three programmes show many similarities: they each lie within a specific practical-outcome domain (as opposed to a specific research domain, such as engineering research or social sciences research), and in line with this practical focus they all tend to specify the required research much more closely than would a typical call from one of the UK Research Councils or similar (which will often outline a broad theme, and then give researchers freedom to propose research ideas within that theme).

Terminology: There are multiple terms to describe the translation of research into real-world impact, including research uptake, research translation, research-into-use (RIU), research-into-action, research-into-policy and research-into-practice. We will here primarily use the term *research uptake*, which we understand in the present context to refer centrally to concrete impacts on the policy or practice of relevant institutions and organisations. The types of impact sought include (but are not limited to) changes in the investment decisions of governments or funding agencies, or changes in legislation or regulations. Examples of particular impacts sought are given throughout the text as we discuss particular projects.

In what follows, we identify 3 major challenges that we have faced in achieving research uptake in these programmes. In each case, we discuss particular cases and solutions adopted. Those 3 major challenges are:

1. Navigating between practitioner views and researcher views
2. Finding strong in-country institutional partners for RIU
3. Dealing with long time-lags between research and research uptake

In our discussion of these challenges, we report some of the comments received in a session we ran at the University of North Carolina (UNC) Water & Health Conference 2018, in which we talked about the issues we face and asked participants to give us their views. About 60 people (mainly researchers and representatives of implementing agencies and funding agencies) took part in this meeting.

1. Navigating between practitioner views and researcher views

Research programmes need some approach for deciding what research questions to explore, and how. Centrally, we aim to generate evidence that leads to changes in policy or practice, that in turn lead to improvements in water management and WASH services, in ways that substantially improve the wellbeing and quality of life of poor people. What type of research project has best prospects for creating change of this type?

Adopting a traditional researcher-led approach, we could simply ask researchers to review the literature and identify research questions with these programmatic aims in mind. Researchers should have strong understanding of how to design and deliver research, strong knowledge of evidence gaps in the academic literature, and strong comprehension of what types of question can be usefully answered by research.

Conversely, researchers may have weak understanding of what practical questions are relevant in a particular context, and of what policy impact aims are politically plausible. Furthermore, career researchers may have their own

motivations for doing particular types of research, in order to build their expertise and publications record in a particular area of specialisation, which can be very narrow. Related to the “researcher view”, one piece of feedback at the UNC meeting was *“RIU programmes should take a step back from jumping to solutions and better understand problems. We need quantitative and qualitative tools, paired with research, to help us understand why programmes are/ aren’t working before we can jump to solutions.”*

Adopting a more “demand-led” approach, we could ask practitioners to determine which research questions we explore: water utility managers in Kenya, for example, or the technical staff responsible for sanitation planning in the Ministry of Health and the Ministry of Water, or the programme staff of an NGO. Sector professionals have strong understanding of the type of knowledge they require, and strong comprehension of what policy impact aims are politically plausible.

Conversely, sector professionals often have weak understanding of how to design and deliver research, and what types of question can be usefully answered by research. If we simply follow practitioner suggestions, we may end up with technical consultancy that meets an institution’s immediate needs, but has no real pro-poor impact on policy or practice, and generates no knowledge of wider value.

In practice, our research programmes have navigated somewhere between these two extremes, taking into account both practitioner views and researcher views. For example, Joanna Esteves Mills of SHARE says *“Research was designed and delivered by academics, but the research areas and questions were identified through a process of engagement with stakeholders including international agencies, national ministries and local governing bodies”*.

The three programmes have approached this in somewhat different ways, but broadly similar processes of literature review, consultation and then analysis were followed by all 3 programmes. In all cases there was significant involvement of research managers (who may or may not themselves be career academics) in defining research.

So how have these approaches worked?

Katrina Charles of REACH says *“Finding the right balance between practitioner and researcher views was a source of conflict at times. Managing expectations and finding mutually beneficial outcomes was a negotiation, as practitioner needs were immediate and specific to their system, whereas researchers needed longer timeframes and wanted to work within their disciplinary expertise.”*

Guy Norman of the Urban Sanitation Research Initiative comments as follows: *“Looking back I feel we may have sometimes followed sector practitioner suggestions too closely: several of the projects in which we closely followed practitioner framings of the research question were less*

impressive in terms of academic research quality, and more importantly have had weak policy impact. In contrast, most of the projects in which we took a more hands-on approach – taking into account local context and practitioner needs, but with research questions and approach developed by us – have been more successful in both respects.”

A different possible approach would be to do extensive initial research to better understand the stakeholders and their political economy, to identify decisions due to be made in the near future that might be influenced by research-generated evidence, and what forms of communication would be useful and when. Understanding these issues up-front isn't always easy, as it requires good relationships with stakeholders and a solid time investment. It's difficult to adopt this approach within a programme of only 3 or 4 years' duration if strong pre-existing relationships do not already exist.

2. Finding strong in-country institutional partners for RIU

Research-into-use programmes in the development context need some sort of partnership with in-country institutions: **a)** to ensure strong representation of in-country views on what research is useful and appropriate, **b)** to increase feelings of in-country ownership and thus enhance prospects of achieving research uptake, and **c)** to ensure that the programme investment contributes to research capacity development in the research countries, not just in London and Oxford. Partnerships are typically with in-country research institutions (for example, SHARE's partners in Kenya include the Great Lakes University of Kisumu, GLUK), or with in-country public institutions (for example, the Urban Sanitation Research Initiative's partners include the Kenyan Water Services Regulatory Board, WASREB).

In the best cases (like GLUK and WASREB), in-country partners are powerful assets: deeply committed to the aims and delivery of the research, staffed with highly skilled and dynamic professionals, and genuinely committed to pro-poor change. For example, WSUP has found WASREB to be genuinely and strongly committed to change which is both socially equitable and financially viable, often driving initiatives independently (for example, the pro-poor sanitation surcharge to be introduced in Nakuru), explicitly seeking out technical support from WSUP and the commissioned researchers, and pushing forward the complex political and administrative processes required for successful implementation of a policy change.

Similarly, GLUK and other SHARE partners have been committed to embedding research uptake activities into their research from the outset. They have persevered in engaging key stakeholders, have demonstrated leadership and commitment (for example, leading the county-level WASH Policy and Advocacy Working Group) and have used their research to advocate for pro-poor change at the local,

national and international level. These actions reflect both committed progressive leadership and an organisational ethos of collaboration and action.

Researchers can also choose approaches at the design stage that help partners engage in the research. For example, designing the research-into-use in a way that includes improving the models and tools that the partners already use offers an easy platform for communication, facilitating co-production of the research. It also ensures tools are appropriate for the existing technical capacity within the institution, e.g. use of the research may require training but won't require new computers.

However, some in-country institutions are less dynamic and progressive. Other in-country partners may be career academics who are driven by "academic" incentives with little focus on research uptake, or who have little access to policy makers; in such cases, different management approaches may be needed to engage stakeholders.

Katrina Charles of REACH says “We have found working with academics with close ties to government or stakeholders, such as those who sit on committees or provide training and expert advice, to be effective. Researchers in those roles already have regular interactions with change-makers, and know their needs, so can help to design effective work and communicate it regularly and effectively.”

Joanna Esteves Mills of SHARE says “The SHARE model for in-country engagement has evolved over almost a decade of experience. Our current approach, which embeds the programme in one academic institution per focus country, has been by far the most successful in terms of encouraging sustainability of capacity development investments and research impact.”

Guy Norman of the Urban Sanitation Research Initiative notes that “In our current programme 2016–2020, we opted for partnership with 2 or 3 key institutions in each country, on the view that it was important to strive for broad institutional ownership. But in any continuation of the Urban Sanitation Research Initiative, it may be better to identify a single strongly committed partner in each country, and work closely with that single partner”.



3. Dealing with long time-lags between research and research uptake

The time-lag between research start-up and eventual translation into a tangible impact is typically long (years, not months), and this creates a major challenge for research programmes expected to demonstrate impact over timescales as short as 3.5 years...

On grant award to the research programme, there is necessarily a period of start-up, sector consultation and research planning before substantial in-house or commissioned research can start. Some staff recruitment was also necessary in all three programmes. The length of this start-up period can be reduced by being ready to “hit the ground running”, but typically major calls will not be released until about one year into the programme. One way of hitting the ground running is to have some research calls ready to go immediately, without needing to wait for the (clearly necessary) consultation and planning phase: for example, the Urban Sanitation Research Initiative released three rapid-start-up calls soon after grant award, and this research was finalised within the first year. In the case of REACH, the first call was essentially part of the diagnostic, as it allowed researchers and practitioners to bid for money for new approaches to address water security, with some of the successful ideas going on to be funded for several years to enable them to develop their ideas further and support research uptake.

Preparing high-quality calls for release is not a trivial task. Research calls are significant technical documents in their own right, not mere contracting templates, and preparation of strong research calls requires significant investment of skilled staff time in creation of a well-structured statement of the research question and research aims, and often of likely methodology. For some types of research, external review of the call may be required. Katrina Charles of REACH notes that “This was new terrain and required considerable capacity building in our team”.

Commissioning takes time. The Urban Sanitation Research Initiative aimed to compress this as far as possible, often allowing only 3 weeks between call release and bid submission. But such a short period between call release and bid submission can be challenging for researchers, particularly in large universities with time-consuming bid approval procedures, and particularly if the research requires complex partnership in multiple countries. The other two programmes allowed longer periods between call release and bid submission: 3 weeks to 2 months in the case of REACH, 1-3 months in the case of SHARE, depending on the nature of the call.

Research (evidently) takes time. Research projects under the three programmes have generally been of between 6 months’ and 4 years’ duration. As an example of a fairly typical project: the Urban Sanitation Research Initiative’s

3-country SanCost study required about 2 months for bid selection and contract negotiation; about 6 months for team initiation (including steps like ethical approval) and detailed methodology development; and about 10 further months for main-phase research delivery, analysis and write-up. These time requirements can’t be easily compressed. Katrina Charles of REACH says “*These delays throughout the process led to us investing more in projects that were successful in the first stage, and where extra funding could help to deliver more uptake.*” Emily Balls of SHARE comments “*One of the lessons learnt in SHARE was that timelines for research approval were not always predictable or straightforward. We needed to seek ethical approval at the institutional level for all partners as well as at the national level in different countries. This was particularly complex for multi-stage projects that requiring multiple ethical approvals.*” A participant at the UNC meeting wrote “*Consider the trade-off between rigour and speed*”; we interpret this as a plea from researchers to allow more time for rigorous research.

Policy change takes a very long time! Typically, policy change takes years not months, depending on policy cycles and opportunities that are not always easy to predict. For example, one of the early projects under the Urban Sanitation Research Initiative looked at willingness of Kenyan water utility customers to pay a little bit extra on their water bill as a “sanitation surcharge” to support slum sanitation improvements. There is genuinely strong interest from the regulator WASREB and the water utility NAWASSCO to introduce a surcharge of this type, but the technical, administrative and political steps to achieve this take time: this 6-month project finished in July 2017, the surcharge has not yet been introduced, but we are optimistic that it will be introduced before end 2019. If that’s the case, this will be 2 years between project start-up and policy impact, and we’d expect this to be at the “short” end: more generally, we’d suggest that a reasonable expectation for policy impact is 3-5 years after programme start-up. However, policy processes and research uptake are not linear, and focusing on a single policy change may lead to disappointment.

Achieving policy change requires consideration of whether this is primarily treated as a researcher responsibility, or a responsibility of other actors including the research management organisation. Many projects under the Urban Sanitation Research Initiative have been relatively small projects of about a year’s duration, such that it is unreasonable to suppose that the researchers will continue to dedicate significant effort to research uptake for a period of years after contract completion. As a result, within the Urban Sanitation Research Initiative, much of the responsibility for research uptake is taken on by WSUP staff in London and in country. Somewhat analogously, the REACH programme involves UNICEF as a core partner, providing a strong in-country infrastructure for ongoing research uptake work.

By contrast, in large-scale multi-year research projects (like the MapSan health impact evaluation in Mozambique, led by LSHTM but not under SHARE), it makes more sense for primary responsibility for research uptake to lie with the research team. Emily Balls of SHARE notes *“Thanks to the long duration of the programme and to dedicated funding for research uptake, SHARE was able to employ two research uptake staff at LSHTM, as well as research uptake coordinators in two of its focus countries. While these specific staff worked on research uptake, the majority of researchers and research managers involved in the programme were involved in research uptake activities at some point.”*

One approach to speeding up dissemination is to make data immediately available online, as it is collected. This is the model adopted by the research programme PMA2020, which *“uses innovative mobile technology to support low-cost, rapid-turnaround surveys monitoring key health and development indicators”*: full data is uploaded within 6 months, along with targeted briefs on their analysis. The type of data collected under PMA2020 is evidently readily amenable to this, and certainly some of the work done under our programmes could be similarly disseminated; but most types of data cannot be meaningfully disseminated in such a rapid way.

However, policy briefs and research briefs can help to disseminate work on more rapid time-frames than it takes to publish in peer-reviewed journals. Peer-reviewed publications of course need to be open access, in order to ensure that findings are readily and freely accessible to interested readers worldwide.

4. Additional challenges

Over and above the three major challenges detailed above, here we more briefly discuss some other challenges and possible solutions.

i) How can we bring Southern universities on board more effectively?

In open competitive calls, all three programmes have found that Southern academic institutions are rarely able to compete effectively with Northern institutions and research consultancies. There are multiple possible factors contributing to this, including high workloads, difficult administrative procedures (sometimes imposed by funders), different performance drivers for academics in Southern institutions, and fewer staff with a strong focus on applied research. All three programmes have looked for ways of resolving this: solutions include a subset of calls that are open to Southern institutional bidders only; and formal or informal processes for encouraging Northern and Southern institutions to work together on bids.

ii) How can we bring Northern universities on board? Do we need to?

Again in open competitive calls, all three programmes have found that Northern universities, and most notably UK universities, bid infrequently. This may reflect the high overheads requirements imposed on UK academics by their universities (anecdotally, US bidders may be less constrained by this), and by rapid bid turnaround times which may be challenging given centralised university procedures for bid sign-off: as a result, universities are often beaten by more nimble research consultancies with lower overheads. From the development research management perspective, of course, this is not necessarily a problem: indeed, we should arguably be more interested in Southern university involvement.

iii) How can we deal with gender inclusion?

All three programmes have found that in-country consultation rarely identifies gender as a core topic for research. However, gender inclusion is critical for achieving strong development outcomes, and furthermore is a requirement for UK government funding under the International Development (Gender Equality) Act (2014), which highlights *“...the desirability of providing development assistance that is likely to contribute to reducing poverty in a way which is likely to contribute to reducing inequality between persons of different gender”*.

Experience of the three research programmes suggests that in the research-into-policy context a targeted approach to gender is generally more appropriate and effective than mainstreaming; in other words, we should explicitly focus a subset of resources on projects dealing centrally with gender inclusion priorities.

Research projects differ: from projects that are explicitly and centrally focused on gender issues (e.g. a study of user experience of shared sanitation); to projects that are not centrally focused on gender, but need clear gender disaggregation of findings (e.g. a health outcomes study); through to technical projects in which gender considerations are essentially irrelevant to data collection (e.g. a technical evaluation of a wastewater treatment process).

In line with this, we consider that all projects should carefully review gender implications at the design stage; but not all projects need a substantial research focus on gender in data collection. This requires structured oversight processes at the programme management level to ensure **a)** that all projects effectively assess (and act on) gender implications at the design stage, and **b)** that a sufficient subset of projects has an explicit and central focus on gender issues. Finally, and over and above the preceding, we note that gender inclusion in research teams and research uptake staffing is important at all levels within a programme.

iv) How can we prevent “equity drift”?

This is best illustrated with an example. We deliver or commission research to support introduction and implementation of a redistributive pro-poor tax of some sort, but as the research uptake process proceeds, the pro-poor nature of the tax is eroded as a result of political pressures. The Urban Sanitation Research Initiative has aimed to deal with this by careful attention to this risk at the bid design stage and during the research delivery process, and in subsequent research uptake work (often delivered by WSUP staff following research contract completion). For example, a recent call for research on how to deliver sewerage into low-income settlements in Dhaka explicitly highlighted that political forces are likely to push back against this, and urged bidding researchers to state how they would deal with this in their research design and RIU strategy.

An alternative (not mutually exclusive) avenue would be to adopt the approach outlined above, starting the research programme with a political economy analysis of what is possible, including consideration of where equity and gender issues can be brought into wider discussions. For example, in REACH, resolving conflict over water resources is a policy priority in Ethiopia, offering an opportunity to engage policy-makers in wider equity issues under this banner. A participant in the UNC meeting noted that “*researchers must be aware of political contextual barriers*”, and of course this applies to research managers too.

v) How can we maximise the prospects of successful research-into-use?

The three research programmes apply multiple strategies for achieving effective uptake of research once completed. While peer-reviewed research papers are appreciated and underpin many recommendations, using a variety of communication approaches can help to reach a range of audiences. This might include policy briefs or summaries to focus on the “so what?” question from research users; or, particularly where individual research projects focus on highly specific topics, consolidating research findings into more coherent summaries that tie together the findings of different projects in ways that are more accessible and interesting to busy people in public institutions and other target organisations. These non-academic outputs can also help to fill the lag between research and publication. For example, REACH created a Research Brief on key themes emerging from gender research across 23 studies in the programme, before most of them had been published, to help communicate key findings to stakeholders.



5. Conclusions

Our top-line conclusions are as follows:

First, long time periods are required for effective research-into-use in policy influence spheres. However, bilateral donor funding is necessarily governed by public budget cycles, meaning that funding may often be over a shorter-than-ideal period. This has been a particular challenge for the Urban Sanitation Research Initiative, with funding to date over only 3.5 years. The REACH programme has funding over a 7-year period, more consistent with research-into-use, and the SHARE programme has been twice extended over a 10-year period, with the latest extension explicitly designed as a research-into-impact phase.

We would urge research funders to identify mechanisms that can ensure sufficient programme duration to achieve research-into-use: this can be achieved by longer-period programme funding from the outset (as per REACH) and/or by subsequent extension (as per SHARE). Another possibility is partnership funding that develops strong relationships before a research programme commences (e.g. DFID works with another donor or donors to co-finance a programme).

Second, organisations charged with the management and delivery of research-into-use programmes (like the University of Oxford, the London School of Hygiene & Tropical Medicine, and WSUP) clearly need to be self-critical and learn from experience.

Identifying ways in which research can drive real pro-poor change is challenging, and careful attention is required to the processes used for research project selection and partnering to ensure uptake: specific recommendations to achieve this have been included in the full text above.

Different models for achieving research-into-use can be employed, depending on the project design and preferences of the researchers. At REACH, an emphasis has been placed on using researchers as agents of change, based on close relationships between researchers and research users, which has offered many opportunities: this method has advantages in flexibility and breadth of engagement, but it does require a time commitment from both sides. Alternative models include more targeted engagement based on an initial political economy analysis to identify opportunities for change.

Third, it is critical to pay strong attention to ensuring that findings and policy implications are disseminated in ways that can make an impact on decision-makers. In particular we highlight the importance a) of frequent and varied dissemination materials and mechanisms to communicate research findings in a timely manner, including summaries and synthesis reports, and b) of considering how policy influence mechanisms can continue over relevant timescales, potentially beyond the duration of the research project. Research papers are critical to providing rigorous, peer-reviewed scientific evidence for policy makers: but they will only be taken into account if the policy maker is aware of them, and understands their implications when making a decision.



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