Impact and value-for-money of the REACH programme

Guy Hutton | Innate Values Ltd.

March 2025

INNATE VALUES LTD.

REACH
Improving water security for the poor

UNIVERSITY OF OXFORD

UK International Development
Partnership | Progress | Prosperity

Contents

Acknowledgements

The report was researched and prepared by Guy Hutton (PhD), Innate Values Ltd. Inputs from the REACH Directors (Professor Rob Hope and Professor Katrina Charles) and REACH Programme staff (Gian Melloni, Wei Francis and Nancy Gladstone) as well as FCDO Senior Responsible Officer (Anna Nileshwar) are appreciated.

How to cite this report:

Hutton, G. 2025. Impact and value-for-money of the REACH programme. Innate Values Ltd. and REACH Programme.

About Innate Values Ltd.

Innate Values Ltd. provides economics and financing expertise to improve development outcomes in water, sanitation and hygiene (WASH), water resources, health, environment and climate resilience. Clients include a variety of International Organisations, Academia, Governments and Civil Society Organisations.

For more information, visit www.innatevalues.com/

Photo: © Sonia Hoque

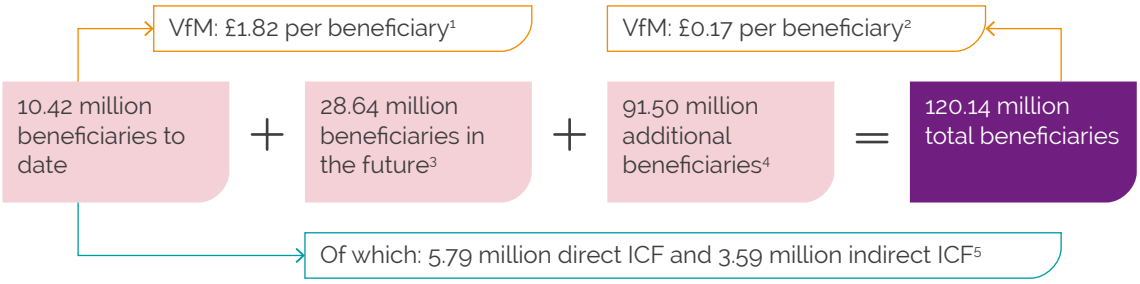
Summary

REACH is an international research programme with a goal of improving water security and climate resilience for 10 million people in sub-Saharan Africa and South Asia by 2025. REACH is a consortium led by the University of Oxford with research observatories in Bangladesh, Ethiopia and Kenya. Funding of £22.5 million was provided by the UK's Foreign, Commonwealth & Development Office (FCDO).

This present report aims to provide an independent input to the evaluation workstream in REACH's programme closure plan agreed with FCDO, and includes updates on programme impacts and outcomes since the 2023 Strategic Impact Review, an assessment of value for money (VfM), and a brief review of the theory of change and the programme's governance and management.

The REACH Strategic Impact Review (2023) concluded that 10.42 million people on the ground had already benefitted from REACH, and an update in February 2024 concluded that REACH achieved 5.79 million direct and 3.59 million indirect International Climate Finance (ICF) beneficiaries. A future 28.64 million people were also projected to benefit from REACH. Since then, some emerging developments in five projects are expected to expand REACH's impact, amounting to a potential further 91.50 million beneficiaries, bringing the estimated future beneficiaries to 120.14 million (see Figure below).

Figure 1: Value for Money beneficiaries for the REACH Programme.



Key: VfM – value for money; 1. Based on budget spent until 05/2024;
2. Based on REACH budget of £22.5m; 3. Previous estimates until 05/2024;
4. New estimates since 05/2024; 5. Figures do not sum to 10.42m (see Annex 2)

In terms of leveraged funds from partners, an estimated £92 million was estimated to have been leveraged through REACH influence until end-2023. Since then, one additional major project – the BRIGHT project (Basin Management Support for Resilient Inclusive Growth and Harmonized Transformation) – has been leveraged in Ethiopia, which is worth £39 million. The addition of BRIGHT brings the total leveraged funds to £131 million.

Value-for-money has been assessed across the "5 Es": cost-effectiveness, effectiveness, equity, efficiency and economy. At the impact indicator level, REACH achieved a cost of £1.82 per beneficiary compared to the target of £2.25 per beneficiary. If the 28.64 million future projected beneficiaries are included the cost is £0.49 per beneficiary, and if the updated future projected beneficiaries are counted the cost is £0.17 per beneficiary.

At the outcome indicator level, £1 of REACH spending has leveraged £7 from other funders. Analyses of effectiveness and equity demonstrate that REACH has achieved – and in many cases exceeded – its goals on catalytic change, gender and the development of early and 'Southern' career researchers. The VfM analysis indicates that REACH has consistently outperformed its performance targets at output indicator level, such as knowledge sharing events, trainings, publications and citations.

This review has found that the REACH theory of change – which has evolved during the programme – has proven impactful and delivered value for money. The identification of assumptions at the start has helped to identify and mitigate risks. A key success factor has been the programme's ability to engage and build strong relationships with a range of stakeholders at different levels, which has contributed to the continuity of its research and influence even in the face of political and social instability. Decision makers have been strongly influenced by the credibility of research conducted through the observatories, local ownership, strong communications, as well as support and influence of international partners engaged by REACH.

The management of finances and risk, the detailed and regular monitoring and evaluation, and the contribution of advisory groups have all played vital roles in REACH's success. Drawing on the logframe indicators, financial reporting, and reviews including FCDO's annual review, it is clear that the REACH programme has been managed efficiently and delivered excellent value for money.

The present review has used both quantitative and qualitative evidence available from the REACH programme to answer a range of questions relating to its performance. Given the size, length and complexity of the programme, it has been no small task to summarise the programme's performance in a few words or even a brief report. In conclusion, drawing on the logframe and financial reporting, and various other reviews including FCDO's own annual review, it is clear that the REACH programme has performed very highly. The VfM analysis which drew on selected efficiency indicators also demonstrated that a high degree of value for money was achieved by the REACH programme. Much of this would not have been achieved with a traditional research programme, especially one of a short time duration. Indeed, the close relationships developed with practitioners in the programme countries and the funding of a ten-year research programme to allow research to be translated into policies and programmes on the ground – were strong enabling factors for REACH to achieve and surpass its targets.

Photo: © Water For Good

Background

REACH is an international research programme aimed to improve water security and climate resilience for the poor by delivering world-class science that transforms policy and practice. REACH was funded by the UK's Foreign, Commonwealth & Development Office (FCDO), for a ten-year period (2015-2025) with funding of £22.5 million.

The programme, led by the University of Oxford, involves a research consortium of global leaders in water and climate science, policy and practice. Its goal is to improve water security and climate resilience for 10 million people in sub-Saharan Africa and South Asia by 2025. Observatories and staff funded by REACH are based in Bangladesh, Ethiopia and Kenya. In its final phase, REACH's priorities are to conclude existing research and to strategically strengthen the impact of the programme.

This present report aims to provide an independent input to the evaluation workstream in REACH's programme closure plan agreed with FCDO, including: (1) provide update since the 2023 Strategic Impact Review; (2) analyse value for money (VfM); (3) review the success of the theory of change; and (4) assess how programme governance and management have contributed to REACH's success.


Photo: © Lars Schoebitz

Methodology

The review was desk-based, drawing on programme documentation gathered for the Strategic Impact Review in 2023 and supplemented with the REACH Annual Report (2023-2024), FCDO's Annual Review (2023), the FCDO Programme Completion Report template, and FCDO's Approach to Value for Money (2011, 2021). Further information and guidance was received from meetings held with the REACH leadership team, FCDO, and selected members of the Global Advisory Panel (GAP) and Science Board (SB).

Photo: © Saskia Nowicki

Photo: © Jeff Waweru

Impact of REACH in beneficiary numbers and leveraged funds

This section presents beneficiary numbers, identifies aspects that have emerged solidifying or expanding REACH's impact, reviews how the programme's Exit Strategy has advanced, and identifies further lessons from scale out.

How many people have benefitted from the REACH programme? In 2023, a Strategic Impact Review was conducted which assessed – until September 2023 – whether the REACH programme had achieved the expected impact on water security for the poor. In December 2023, an estimate was made of the number of people qualifying for support from International Climate Finance (ICF) based on REACH's impact numbers. The review concluded that 10.42 million people on the ground had already benefitted from REACH (see Annex 1), including 5.79 million direct and 3.59 million indirect ICF beneficiaries (see Annex 2). In addition to those already benefitting, 28.64 million people were projected to benefit from policy or budgetary changes that have already taken place or programmes that have been initiated directly using REACH research (see Annex 1). An estimated £91 million was estimated to have been leveraged by REACH influence until December 2023 (see Annex 3).

Subsequently, in its 2024 Annual Report, REACH used the updated beneficiaries included in the Strategic Impact Review, including ICF beneficiaries. In terms of leveraged funds, the 2024 Annual Report included an additional major project – the BRIGHT project (Basin Management Support for Resilient Inclusive Growth and Harmonized Transformation) worth €45 million (£39 million[1]) and funded by the Government of the Netherlands. The grant was made to the Ethiopian Water and Land Resource Centre (WLRC) for national Integrated Water Resource Management. The BRIGHT programme builds on WLRC's learning in the REACH programme, integrating their water quality research in IWRM and establishing basin information systems based on AwashWare, a suite of tools providing valuable data and modelling capabilities to support sustainable water resource management practices. The addition of BRIGHT brings the total leveraged funds to £131,090,605. How the leveraging was achieved in each case is described in the Strategic Impact Report (2023).[2]

Between 30 April 2024 and 30 October 2024, there were no proposed changes to the number of beneficiaries already impacted or the funds leveraged. However, some developments are emerging and are expected to expand REACH's impact, thereby providing the opportunity to estimate additional future beneficiaries of the REACH programme. While estimates are approximate, they amount to a further 91.5 million future beneficiaries. The following are noteworthy:

1 Using €:£ exchange rate on 1 October 2023 which was the approximate project start date.

2 To qualify as having 'leveraged' such partner projects, it is necessary to demonstrate that research produced under the REACH programme played an important role either in the initiation of the project or the definition of the project.

- By invitation from the Government of Bangladesh, a concept note to scale up SafePani to 65,000 primary schools to benefit over 13 million children has been discussed with the Directorate of Primary Education in mid-2024. The collaboration with UNICEF, FCDO and the Directorate General of Health Services (DGHS) to promote safe water, sanitation and hygiene (WASH) services is advancing in terms of rethinking policy design and field testing the approach.
- Scaling up the SafePani work includes collaboration with Uptime and the Government of Zambia to pilot an adapted version of the model from late 2024, with potentially 3 million beneficiaries if a national model is achieved in the future.
- The BRIGHT programme in Ethiopia will provide a significant opportunity to expand the scale and impact of the work in Ethiopia on water resources, drinking water quality, pollution and gender. As Integrated Water Resources Management (IWRM) is further expanded to 5 catchments, this is expected to lead to potentially 50 million new beneficiaries.
- Climate research on the Turkana low-level jet affecting drought and flood extremes regionally will continue to advance through a new memorandum of understanding between the University of Nairobi and the Kenya Met Department (KMD), which will be supported by the University of Oxford. RIFTJet work is informing programme design (World Food Programme and the International Water Management Institute (IWMI)) and regional climate models and groundwater mapping (UNESCO, Intergovernmental Authority on Development (IGAD), UK Met Department, and KMD). A suite of at least 12 climate models are now using RIFTJet data for recalibration. FCDO staff in Kenya are briefed and engaged in this ongoing work and considering the implications for their climate programming and investments. This is expected to lead to potentially 25 million (indirect) beneficiaries.
- FundiFix is a key partner in a US$24.8 million USAID programme (STAWI, 2023-27) to catalyse improvements in the design and planning of water security in the arid counties of northern Kenya. This will improve water service quality in nine counties for at least 500,000 additional people, strengthen institutions, and improve water resource management.

Which new aspects have emerged solidifying or expanding REACH's impact, and advancing the Exit Strategy? These developments described above all represent lessons from scale out and advancement of the programme's Exit Strategy. A further 10 policy and practice briefs have been produced over the 2023-24 reporting period, five of which are Stories of Change, and two of which address gender. Seven briefs were co-authored or co-badged with practitioners, five were led by women, and two were led by southern researchers. In addition, other projects or pieces of work that have demonstrated the potential to catalyse improvements in the design, planning, budgeting, implementation and monitoring of water security interventions include:

- REACH support to the external review the World Health Organization's "Guidelines for drinking-water quality: small water supplies" which were released in February 2024, with strong influence from REACH's water quality work in Bangladesh.

- SafePani activities were able to respond immediately to ensure drinking water services remained available in schools and community clinics after Cyclone Remal landed on 27 May 2024.
- Associate Professor Behailu Birhanu at Addis Ababa University has been working with the World Bank to expand the use of his research on conjunctive use of surface and groundwater under the Bank's Water Resilience Diagnostic Project. Prof Berhanu's model serves as a foundation for the diagnostic analysis in the Upper Awash basin, with dissemination to the Ministry of Water and Energy and the Addis Ababa Water and Sewerage Authority in May 2024.
- Uptime is modifying its results-based contracts to implement new water safety metrics in Honduras, Indonesia, Kenya and Uganda based on the findings and recommendations of the SafePani pilot in Bangladesh. Pilot activities began in early 2024 with plans to progressively apply metrics to all 16 Uptime countries from 2025.

What further lessons are there from scale out? A panel discussion held at the REACH international conference "Within REACH – A water secure world" in Oxford in September 2023 reflected on how the enabling environment provides the conditions to deliver impact from research. The discussion highlighted the importance of: (1) building equitable partnerships that are mutually beneficial and based on trust between partners; (2) flexibility of funding to support active impact pathways; and (3) the benefits of working at scale (See: Charles et al., 2024). In addition, the fostering of science-practitioner partnerships increased the research impact and reduced the time it takes to move from piloting to policy to practice. Furthermore, working closely with practitioners has ensured the research focused on metrics and models for decision makers, including appropriate sampling frequencies to inform decision making and capacity building of decision makers to have confidence to act on data. This has led to commitment of government budgets. When working together, these factors have considerably increased the impact of research.

With the phasing out of REACH funding for some staff positions in the observatories or collaborating institutions, some REACH staff have gained promotion, moved into government positions or into international organisations (e.g., one in the US State Department and two in the World Bank), thus expanding the influence of REACH. A 2024 Story of Change details how REACH has been successful in enabling Early Career Researchers to progress into leadership roles.

Value for Money

This section assesses how REACH has addressed the five value for money (VfM) "Es" outlined in FCDO's PrOF Guide "FCDO's Approach to Value for Money" (2021).

The options for quantitative metrics and qualitative analysis were explored in a prior stage, and the most appropriate results are presented here based on how fairly and accurately they reflect VfM of the REACH programme. Given the lack of academic or industry benchmarks on specific VfM metrics, the performance of REACH is compared with the initial targets in the logframe. In attempting to capture VfM of a research programme, the VfM of individual Stories of Change is explored. The potential VfM of the proposed use of the 'Impact fund' is assessed.

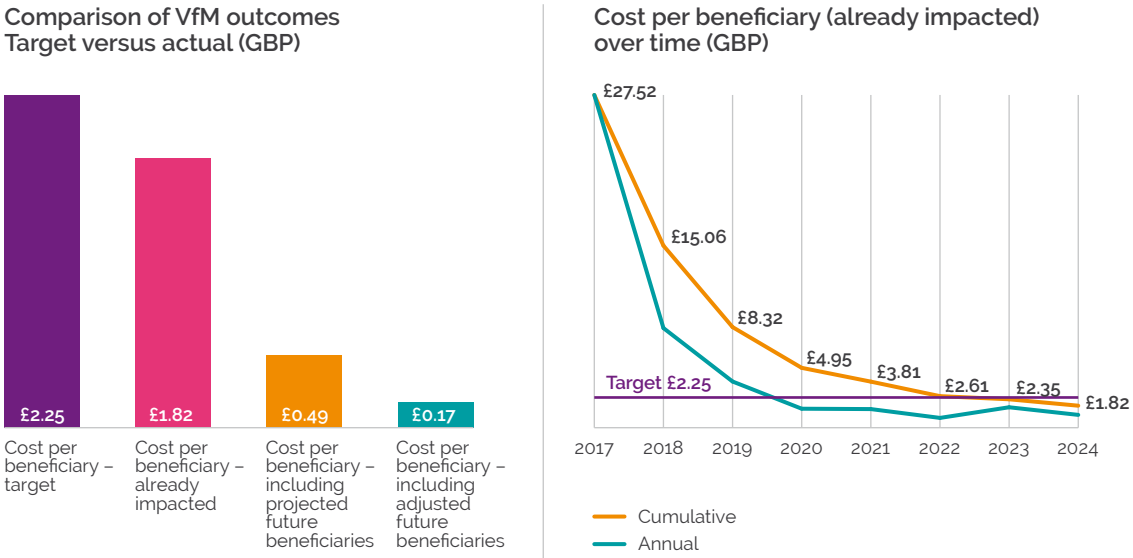
Cost-effectiveness: What is the intervention's ultimate impact on foreign policy objectives, relative to the invested inputs?

Cost-effectiveness analysis in FCDO's VfM methodology compares the impacts and outcomes of a programme with the costs. The most meaningful VfM metrics assessed here are the cost per beneficiary and the cost per £ leveraged from other funders, which are compared with the actual spending – until 30 April 2024 – of £19,023,248. Figure 2 (left-side) shows that the VfM performance of £1.82 per beneficiary is better than the target of £2.25 per beneficiary, due to higher number of actual beneficiaries and lower actual costs.[3] It should be noted that when the REACH programme was extended with a budget uplift, the target beneficiaries were doubled from 5 million to 10 million, while the budget was only increased by 50%.

When including the projected future beneficiaries (28.64 million), the cost reduces to £0.49 per beneficiary, which is less than one-quarter of the target amount, thus representing extremely high value for money. If the updated future projected 91.5 million beneficiaries are counted, the cost is £0.17 per beneficiary.

3 The target £2.25 per beneficiary is based on the target beneficiaries of 10 million and the total budget of £22.5 million.

Figure 2: Cost-effectiveness of the REACH programme



While this lower cost per beneficiary represents good value for money, it should be noted that it was only achieved after 2023 (see Figure 2, right-side). Indeed, with additional beneficiaries accumulating over the coming years, the cost per beneficiary impacted will drop well below £1.82. Also, while the line marks a steep drop in early years, it is only in later years that REACH inches towards its targeted impact. The message here is that VfM increases over time as relationships with practitioners strengthen and as research translates into policies and programmes on the ground, hence justifying the funding of research projects for a longer period of time to support the uptake of the findings into policies and programmes.

When only International Climate Finance (ICF) beneficiaries are included (see Annex 2), the cost per beneficiary rises to £3.29 when only direct beneficiaries are counted, and £2.03 when both direct and indirect beneficiaries are counted. This means that – while ICF definitions were not available when REACH was designed – REACH has contributed importantly to increasing climate resilience for these populations.

REACH has also been remarkably successful at influencing other funders. The Strategic Impact Review (2023) provides a more detailed assessment, which reported £91 million of leveraged funds, which is well above the £55 million target. If the BRIGHT programme (£39 million) is included, REACH has leveraged more than twice the target amount, at £131m, and the cost per £ leveraged is £0.15 instead of the target £0.41. In other words, £1 of REACH spending has leveraged £7 from other funders, directed towards both research and water investments. This benefit comes on top of £0.49 per beneficiary reached and with no extra cost.

The leveraging excludes national authorities taking over FCDO funding, or enhancing funding for scale up. An example of the former is the shift in support for FundiFix from 81% donor (FCDO) in 2017 to 14% donor in 2021, due to the transition to funding from the Kenya Water Services Maintenance Trust Fund. An example of funding for scale up is the SafePani expenditure that has been formally approved by the Bangladesh Planning Commission from 2024 to 2030 for Khulna district.

In conclusion, REACH has performed considerably better in terms of cost-effectiveness than the VfM implied in the original targets and budget provided by FCDO.

Effectiveness: How well are the outputs of an intervention having the intended effect? ('Spending wisely')

Impact and outcome indicators not captured in the cost-effectiveness assessment – but which are a critical part of the pathway to impact – are the achievement of 30 Stories of Change and 32 examples of catalysed improvements in the design, planning & budgeting, implementation and monitoring of water security interventions that incorporate climate science and are responsive to the needs of poor women, men and children. These 62 examples cover a wide range of topics under the REACH programme, and are described in more detail in REACH annual reports and separate publications. The successes described in the Stories of Change and catalysed improvements are down to several factors which combine to have a greater overall impact. These include:

- The **considerable quantity of relevant, high-quality research produced** is demonstrated by 105 open access peer reviewed articles and working papers published until 30 April 2024. A high proportion are in reputable and high impact journals. The publications list provided in each Story of Change indicates the impressive amount of science on which they are based. It should also be noted that REACH has endeavoured to provide early content in its Working papers, Briefs and Stories of Change compared to traditional journals, which can take over a year to publish.
- **Multidisciplinary research is more impactful**. Water security touches on the lives of people in many ways and interventions need to be designed taking multiple factors into account, making multidisciplinary research essential. Reporting on output indicator 1.1(f) showed that 94% of knowledge sharing events were categorised as multidisciplinary or cross-sectoral (compared to the target of 75%). Also, a large share of the publications generated by REACH are multidisciplinary in nature. Examples include: SafePani which covered water quality, institutional and financial aspects; Greater Dhaka river research which covered hydrological, water diaries, and water quality aspects; and Uptime which covered water quality, operational and financing aspects.
- **The Oxford 'label'** is a globally recognised brand and has been stated in several interviews to have helped open doors and have greater impact.

- **Practitioner engagement is key to engage senior levels of government to achieve impact – and more rapid impact – on the ground**. There were 29 engagements of country teams with practitioners, which is significantly greater than the target of 10 engagements. 61% of knowledge sharing events were categorised as co-organised with a practitioner (compared to the target of 50%). Fifty percent (31/62) of policy and practice briefing materials produced were co-authored or co-badged with practitioners. Furthermore, there were 48 concrete examples of positive interactions between the REACH research team and practitioners in UNICEF, government, CSOs, industry and community members (target of 45). Twenty (out of 126) open access peer reviewed articles and working papers were co-authored with practitioners – or about 1 in 6. Finally, drawing on an indicator implemented since 2022, there were 14 examples of collaborative working among key stakeholders in REACH's programme sites demonstrating sharing of information/knowledge, co-designed planning and budgeting, or co-implementation of projects, research and studies (target of 9).
- **Capacity-building**: Indicator 1.6 was introduced in 2022 "Number of local, national and global actors with improved knowledge of or skills in identifying and responding to water security challenges, taking account of the need for climate resilience and equity of access" and recorded 739 participants in REACH events over 3 years (2022-24) compared to a target of 150 participants.
- **The use of co-funding and student research to bring additional capacity into REACH**. REACH has benefitted from the time of staff and its partners that have been funded from other sources. In many of the research grants, partners have made their own financial contributions. Also, additional funding was secured for several staff posts both in Oxford and in partnership funding arrangements, and hence REACH did not fund 100% of their time on the REACH work. Also, the funding of Oxford MPhil and DPhil researchers from REACH (£299,357), and co-funding obtained (~£300,000), has ensured low cost but highly capable research contributions – which has added considerably to the value for money of REACH.
- **The adoption of best practice M&E**, as demonstrated by the annual monitoring of a considerable number of indicators in the logframe, and the biannual financial reporting, which furnished ample opportunity to assess and fine-tune the programme as it evolved. As is common to all programmes funded by FCDO, there are annual reports of the recipient (REACH) with many annexes which are reviewed and utilised in the annual reviews of the funder (FCDO) including a programme rating. This reporting mechanism is considered to be highly robust, and provides the formal foundation for the programme as it evolves. Since the start of the programme, Oxford has scored exceptionally well, with 8 years of A+ and one year of A++.
- **The continuous strategy reviews and updates**. Several key moments have provided pause for thought and refinement of the programme approach, including: REACH impact review report and response (2018); Research Into Action (RIA) strategies of 8 Observatories (2018); Theory of Change review (2020) review which led to several output indicators being added to the logframe; Global Strategy (2020-2024) to strengthen the overall strategic focus of REACH; Gender Strategy revisions (2021); Exit Strategy (2023); and Strategic Impact Review (2023).

Equity: How fairly are the benefits distributed, in particular amongst marginalised groups? ("spending fairly")

The REACH programme aims to improve water security outcomes for poor people, with impact indicators focusing on the number of *poor* people reached (10 million target) and 30 Stories of Change detailing how REACH research has been used for policy and practice, impacting *poor people's* lives. The recent Strategic Impact review (2023) concludes that the 10.42 million beneficiaries achieved by REACH until 30 April 2024 are highly likely to be poor and vulnerable people or communities, as are the projected 28.6 million future beneficiaries. The detailed impact on poor people's lives can be read in the large numbers of peer reviewed articles, Stories of Change and working papers generated from REACH research. The Strategic Impact Review (2023) finds some of REACH's estimates of people impacted are likely to include poor people (e.g., Kenya Water Act) while in many cases all households in a particular geographical area are counted, whether poor or non-poor (e.g., SafePani, Uptime). As the Strategic Impact Review states, it could be argued that the majority of these rural or small-town populations are poor or near poor, at risk of falling into poverty, or where poor water security is a risk factor for falling into poverty. Indeed, even if they are not all labelled 'poor', many populations are vulnerable, in that their livelihoods depend on an adequate water supply, they are served by public health facilities, or they are women and children. The focus on gender is captured in 4 output indicators shown in Table 1, with all targets being met and some surpassed.

Table 1: REACH performance against gender indicators

Output indicator		Target	Actual
1.1	Percent of knowledge sharing events organised by REACH that specifically address gender	50%	60%, 84%, 94%[1]
1.3(b)	Policy and practice briefing materials produced that specifically address gender	25	25
2.3	Number of open access peer reviewed articles and working papers published in which gender is part of the analysis	40	41
2.8	Percent of knowledge sharing and dissemination events not organised by REACH addressing gender	40%	50%

Notes: [1] Yearly performance from 2022 to 2024.

To enable a better understanding of the poverty and gender impacts of the eight research projects with the largest direct beneficiary numbers, the following provides further details (extracted with editing from the Strategic Impact Review (2023)):

- Turkana low-level jet study in East Africa. The UN Office for the Coordination of Humanitarian Affairs (OCHA) estimates 25 million people are living with daily water insecurity during the drought. This includes over 7.8 million women of reproductive age who face dangers to their health and aggravated risks of gender-based violence due to the drought.
- Results-based maintenance contracts provided by the Uptime Catalyst Facility has provided water security for almost 5 million people in 16 countries since 2020, of whom major beneficiaries are women and children.
- Horn of Africa Groundwater for Resilience programme (HoAGW4R) in Kenya, Ethiopia, and Somalia supports millions of vulnerable people and their livelihoods with sustainable groundwater supplies and defines interventions in aquifer systems with regional and transboundary implications.
- Hospital WASH and environmental hygiene programme in Bangladesh has led to improvements in environmental hygiene and waste management at 2 hospitals serving districts with vulnerable populations of 5 million people and where major beneficiaries are women, neonates and children.
- Article 93 in the Kenya Water Act (2016) was strongly influenced by REACH research on FundiFix, and permitted – for the first time – professional service providers to manage water services. Initially this was estimated to benefit 1 million rural population nationally, a figure which was later supported by development partners. Major beneficiaries are women and children.
- Flood mitigation in coastal Bangladesh. River waterlogging affects crop production, transportation and economic development, and impacts over 1 million poor people in the Bhabadha region.
- The Water Quality Monitoring System (WQMS) and Integrated Catchments (INCA) model will lead to protecting at least 1 million vulnerable people in Greater Dhaka from flood waters from polluted rivers.
- The SafePani model has grown from 4 pilot unions to a further 4 unions and now 68 unions across the coastal region, improving water security for over 300,000 girls and boys in schools, and vulnerable patients in healthcare facilities.

As well as impact on beneficiaries, REACH aims to be a role model in promoting gender equality and national leadership in its programme design and implementation, with several indicators covered below. In the implementation of a research programme that promotes gender equity among the programme staff and other researchers, there are more likely to be positive gender outcomes of the programme, which can be both immediate and longer term. The programme targets have been met for all indicators, and many of them have been significantly exceeded, especially around women's leadership and the number of women in observatory management groups (see Table 2).

Table 2: Performance against gender targets in programme implementation

Output indicator	Sub-indicator	Target	Achievement
Indicator 1.1: Knowledge sharing events organised by REACH	(b) % of attendees that are women	40%	40%
	(i) Where women are visibly involved in the leadership	70%	100%
Indicator 1.2: Training for researchers	(b) # of years and % of years of training for women researchers	113/225 = 50%	158/305 = 52%
Indicator 1.4: Inclusive digital engagement	% of blog authors that are women	40%	61%
Indicator 2.8: Number of knowledge sharing and dissemination events not organised by REACH	(b) % presenters that are women	40%	50%
	(c) % presenters that are early career researchers	30%	42%
	(d) % presenters from global south	40%	61%
	(e) % presentations that address gender	40%	85%
Indicator 3.1: Functioning of Global Advisory Panel, and Science Board	(a) # of women on the Global Advisory Panel and Science Board	3 women on each of the SB and GAP	GAP: 6 women of 11 members SB: 3 women of 15 members
	(b) # gender specialists on the Global Advisory Panel and Science Board	At least one gender specialist on the SB and GAP	3 gender specialists on GAP, 2 on SB
Indicator 3.4: Monitoring country research groups & activity evaluation	b) # women in observatory management groups	6	19

The gender focus of these six output indicators – and the (over)achievement of the targets – indicates the strong gender focus of the REACH programme. However, the effectiveness of REACH in ensuring women benefit disproportionately more than men has not been measured at the project level nor in aggregate statistics. In many cases, women are the obvious beneficiaries, such as through closer and more resilient water sources (where women tend to be the water haulers in around 80% of African households), or WASH services for women's health services, or the fact that WASH services in schools are argued to be more important for girls than for boys.

As well as gender equity, REACH has been heavily focused on promoting the careers of early career researchers (ECRs) and engaging Southern researchers and practitioners. The programme targets have been met for all indicators, and many of them have been significantly exceeded, especially around Southern leadership and engagement of practitioners and Southern partners in authorship and knowledge events (see Table 3).

In conclusion, detailed and regular monitoring of equity indicators has sustained constant attention throughout the programme. It stimulated debate on how the equity targets would be achieved and it challenged the REACH leadership team, staff and advisory groups to successfully create and test novel solutions.

Table 3: Performance against early career researchers (ECRs) and focus country engagement targets in programme implementation

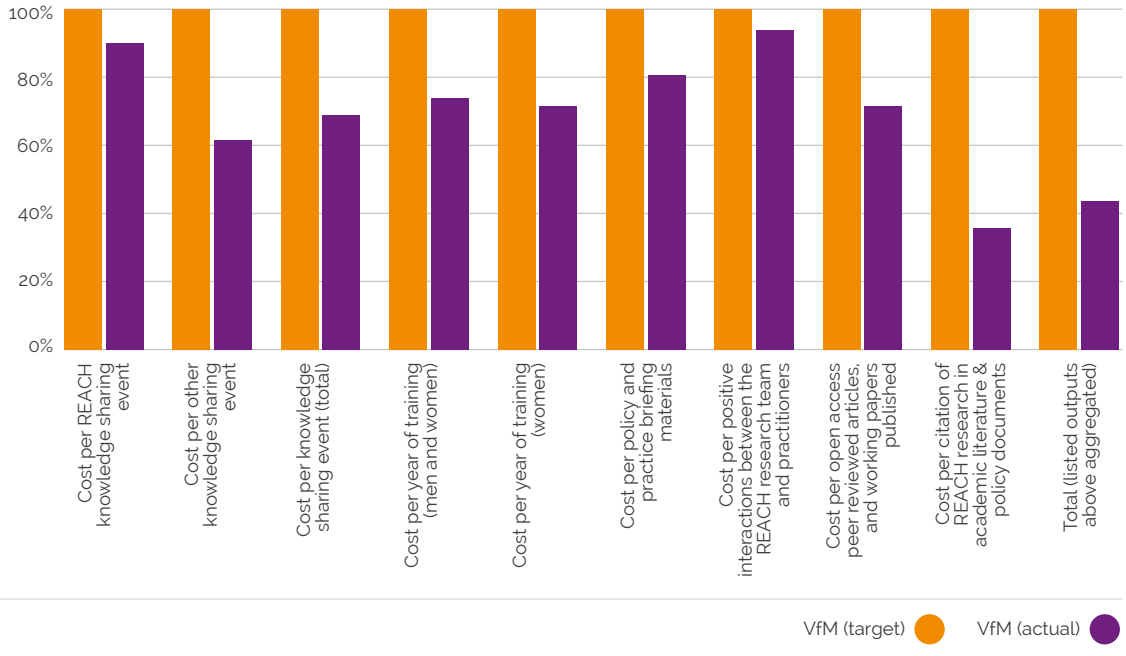
Output indicator	Sub-indicator	Target	Achievement
Indicator 1.1: Knowledge sharing events organised by REACH	(c) % of events that are in developing countries	70%	78%
	(d) % of attendees that are early career researchers	30%	37%
	(j) researchers from developing countries involved in leadership	70%	100%
Indicator 1.4: Inclusive digital engagement:	(a) % of blog authors that are (2) ECRs; and (3) from the Global South	40% 40%	43% 57%
Indicator 2.4: open access peer reviewed articles, and working papers published	# of papers co-authored with practitioners	9	20
Indicator 2.8: Number of knowledge sharing and dissemination events not organised by REACH	(c) % presenters that are ECRs;	30%	42%
	(d) % presenters that are from the global south;	40%	61%
Indicator 3.1: Functioning of Global Advisory Panel, and Science Board	# from developing countries participating in the Global Advisory Panel and Science Board	3 Southern representatives on each of the SB and GAP	GAP: 3 of 11 from developing countries SB: 3 of 15 from developing countries
Indicator 3.4: Monitoring country research groups and evaluation of activities	a) # of engagements of country teams with practitioners	10	29

Efficiency: How well are we converting inputs into outputs? ('Spending well')

Important outputs of REACH's programme include the numbers of publications, citations, people trained, knowledge sharing events, and national or global actors with improved knowledge or skills in identifying and responding to water security challenges. While these and other outputs were meticulously counted by the REACH programme, the attributed costs of achievements in each output indicator were not separately recorded. Such a separate recording of researcher time or other cost would have been difficult given that almost any activity under the REACH programme would simultaneously contribute to more than one output. Therefore, efficiency ratios could not be tabulated to account for these complexities, and any numbers generated with available information would be rendered almost meaningless. Furthermore, the multiple and connected outputs cannot be aggregated to give an overall output.

One comparison that can be made is to compare the actual and target performance. The target numbers for REACH were set based on FCDO's Business Case proposition, and adjusted over time to reflect not only the cost extension but to give REACH more ambitious targets due to its solid performance. The targets compared in the Figure 3 are taken from the 2024 logframe reporting, and therefore reflect the higher targets set progressively over the programme.[4] The cost values on the y-axis are omitted to prevent any inappropriate extrapolation of what VfM can be achieved from a research programme such as REACH. The clear message of the results is that REACH has consistently outperformed its performance targets at output indicator level. If the original targets had been used instead, the contrast would be even greater between actual performance with the updated targets.

Figure 3: Comparing target and actual output indicator efficiency ratios (an actual VfM value below 100% means that the VfM target has been exceeded)



4 Note that when REACH was extended, new targets were set for 2022, 2023 and 2024, which reflected a new, more ambitious trajectory compared to the original targets until 2022.

Capacity building has been one key output of REACH which will have impacts for many years to come, and while it has involved some costs, the training of MPhils and DPhils has also contributed valuably to other outputs and the overall programme outcomes and impacts. Indeed, the future careers of students trained under the REACH programme will have a beneficial impact on the global water sector for several decades. The number of projected career years has been estimated based on the average age of qualifying and the years to the retirement age of 65 years, giving a total of 7,319 future working years of professionals trained under REACH.[5]

Economy: Did the REACH programme buy inputs of the appropriate quality at the right price?

To answer this question quantitatively would require a comparison of the purchase prices made by the programme with the prices of identical items through alternative mechanisms or sources. A qualitative assessment might instead look at the degree of competition and economy provided by the sources and mechanisms by which REACH has purchased inputs. The major expenditure items for such a comparison are the salaries of core staff, the issuance of grants, choice of events to disseminate research, and the purchase of equipment and international travel. However, such an assessment is more the subject of an audit for which this present study is not resourced or mandated, and instead a short qualitative assessment is made.

The REACH programme was won by the University of Oxford through a competitive tendering process, and was issued as a service supplier contract. This essentially means that the University of Oxford is accountable for the deliverables it produces, and is paid upon that basis. Therefore, the University could be paying a premium on its inputs and still come in under budget, and even if it went over budget, the difference would be covered by the University.

In its annual reports, REACH reports on the proportion of budget spent on major items, including salaries (23.2%), partner costs (31.7%), partnership funding (22.7%) and travel (3.4%), and it provides a brief explanation of these costs. These cited percentages reflect the programme spending until 30 April 2024, accounting for £15.62 million, or 81% of REACH's total spending to-date of £19 million.[6] Spending is very close (within 1 percentage point) of the original, budgeted proportions. Due to programme efficiency and the significant underspend of the risk management fund, there will be an underspend of several hundred thousand pounds. The proposed use of the unutilised funds in the Impact Fund are discussed below. Box 1 provides several ways in which REACH has achieved Economy.

---

5 Based on the following analysis:

Highest level of training	Number trained	Average age of leaving	Years to 65	Working years
Postdoc	42	36	29	1,205
Graduate + Bachelors	103	32	34	3,451
PhD	49	40	25	1,220
Masters	52	33	32	1,643

6 Other categories not included in the £15.62 million that are provided in REACH's twice-yearly financial statements include: advisory meetings, equipment, workshops, dissemination, evaluation, overheads and the risk management fund.

Box 1. Value for money: Economy

Value for money in salaries: The University of Oxford salary and grading structure is in accordance with the National Pay Spine and comprises employee salary, national insurance and pension. Salaries are uplifted in line with sector-wide national agreements on an annual basis. In addition, REACH's Oxford researchers have managed to secure separate grants over the years which has allowed staff cost sharing and generated savings (e.g., DEFRA, MRC PHIND, PALM-TREEs, Hygiene Futures).

Value for money in DPhil contributions: the 8 DPhils completed in Oxford costed REACH £299,357, which is 50% of what they should have costed. Hence, REACH has saved £300,000.

Value for money in partnership funding: Partnerships have been nurtured and capacity building achieved with several key partners in programme countries. Financial management is considered to be strong. Key Partnership Funding grants have been extended into the no-cost extension period, optimising outputs and fostering impact at no or little additional cost. The average cost per observatory per year was estimated at £69,284 in Bangladesh, £74,684 in Ethiopia and £89,807 in Kenya.

Value for money in partner costs: competitive research funding has been achieved, with around 25% of research commissioned through open and transparent processes. Since its start, REACH has funded 25 projects through open calls. All research calls were competitively applied for, and applications were reviewed by the REACH Science Board. Open call projects include 12 catalyst grants and five subsequent accelerated grants. Budgets are prepared and approved at the start of each call-down agreement. Economies of scale are applied where possible. Local staff are employed wherever possible to reduce salary costs, and also minimise travel and subsistence costs. Overheads are negotiated ahead of contracting. Given their heavier administrative burden, open calls were used less than expected (spent 77% of budget) and directed funding was used more (spent 127% of budget).

Value for money in travel costs: travels are planned to be multi-purpose where possible to minimise flight costs, or combined with complementary projects so that costs can be shared. Wherever possible, flights are booked with a cancellation option to ensure that costs can be refunded.

Value for money in publishing costs: given that the University of Oxford has negotiated agreements with many publishers leading to reduced costs over time, REACH purposively sought to publish high quality papers in free open access journals. Until 30 April 2024, REACH had spent £80,000 on open access publications, for approximately 80 articles – giving ~£1,000 per published article. Given journals charge upward of £2,000 per open access article, REACH has saved approximately £80,000.

VfM in Stories of Change

In 2018, REACH introduced a template to estimate the costs of achieving results described in each Story of Change, with the intention to calculate 'cost per water secure person' and thereby provide metrics for VfM assessment. Subsequent follow-up of each Story of Change would enable the programme to track how the costs per beneficiary change as the policies, services and interventions become more widely implemented. While the 2018 Stories of Change completed the cost template, the VfM section did not appear until the 2019 Stories of Change. In most Stories of Change from 2019-2024, authors described in one page how VfM was achieved through four Es (Economy, Efficiency, Effectiveness, Equity).

The benefit of including a self-assessment of VfM in Stories of Change has sensitized staff and partners to the centrality of VfM in maximising the development impacts of research, and its importance to the funder, FCDO. No doubt this awareness has carried through into the way staff design and implement their research activities, as well as utilise and disseminate the results. By building a tapestry of the many ways in which VfM is achieved, it is clear that it has influenced the overall achievements and reduced the costs of the REACH programme – which is evident in the results of the 5 Es assessment concluded above.

In terms of the overall VfM picture, many data points on diverse aspects of VfM cannot be aggregated to build an overall picture of VfM from the Stories of Change alone. Some projects have received more attention from Stories of Change than others, meaning an aggregation would provide a distorted picture. Furthermore, the lack of cost estimates attributed to a single Story of Change meant that the 'Cost per beneficiary' of individual research projects could not be estimated. It is questionable, however, whether such cost estimates would have contributed further to the VfM of the programme. If the Stories of Change had estimated cost per beneficiary, it might have enabled a scoring or ranking of different research projects, but it is debatable whether it would have been the right kind of competition, and what unintended consequences it might have led to, such as disincentivising difficult topics with less chance of success.

Photo © Jacob Katuva

VfM of the Impact Fund

In January 2024, a Business Case was submitted by REACH's lead investigators to allocate programme underspend to further leverage the impact of REACH. The initial proposal focused on SafePani, which has potential to scale to 65,000 primary schools across Bangladesh. Furthermore, SafePani has considerable potential for replication in other countries, scaling it out to other target geographies, including India and Zambia, and influence development finance at scale, including World Bank, Asian Development Bank, African Development Bank, UNICEF, the World Health Organization, and others.

The continued investment in SafePani is likely to generate very considerable value for money, because with the additional resources the impact fund brings, it guarantees the needed expertise and support to the key institutions and practitioners to ensure this considerable potential is captured. The Impact Fund also enables piloting of SafePani in other countries, with potentially very considerable numbers in the future. If national scale-up is achieved in Bangladesh, for example, the value for money could be less than £0.10 per beneficiary (e.g., £1 million to ensure 40 million children) – which would be even better value for money than the overall REACH programme achieved of £0.49 per beneficiary.[7]

7 If REACH's results until 30 April 2024 are counted.

Photo: © UNICEF Ethiopia

Photo: © Sonia Hoque

Theory of Change

This section explores how the assumptions in REACH's initial theory of change (ToC) and its 2020 update have been confirmed and how the updated ToC and logframe have proven helpful to foster REACH's impact and to monitor progress towards it. Unintended outcomes or impacts are identified and REACH's approach to being adaptive are reviewed.

Have the assumptions in REACH's theory of change been confirmed? In its business case, FCDO stated its wish to fund new and innovative approaches to water research which cut across traditional siloes and look for the inter-linkages between different parts of the water system and the sectors which depend upon it. It sought not only a research programme that would generate a number of 'traditional' outputs (e.g., evidence and knowledge papers) but also an effective research into use strategy which engages end-users from the start to ensure research findings are integrated into policies and investment decisions. FCDO recognised that different contexts require different stakeholders to engage.

The University of Oxford and partners responded with a multi-faceted programme that sought to deliver on FCDO's intention. However, the novel and innovative approaches proposed and implemented by the REACH programme required an equally novel and innovative theory of change – represented in Annex 4 Figure 1 – that showed how its research findings would be integrated into policies and investment decisions. A novel ToC necessarily requires unproven assumptions and carries with it risks, not all of which can be predicted at the start of the programme. For this reason, the theory of change has been regularly reviewed at various stages of the programme: the impact review (2018), the updated global strategy (2020-2024), and the theory of change review (2021). Following the latter, the logframe was updated with adjusted or additional indicators.

As expressed in the REACH global strategy 2020-2024, the theory of change is succinctly captured in the statement "REACH aims to improve water security for 10 million poor people in Africa and Asia by 2024 through new thinking, models, policies and technologies which can potentially benefit many millions more". Encapsulated here is the requirement to deliver an optimal combination of multiple outputs to generate an outcome, based on an understanding of the pathway to scale.

To answer the question on whether the stated assumptions in REACH's initial ToC and its 2020 update been confirmed require an understanding of the assumptions:

- The initial ToC assumptions (2017) were that (1) policies, practitioners and enterprises adopt risk-based approaches and take them to scale; (2) effective communication based on understanding in the decision making process of water users and change makers; (3) effective communications strategy linked to Global Advisory Board and Science Board working with the Programme Management Board; and (4) political and social stability to permit long term collaboration supported by UNICEF, the poor, civil society and other stakeholders.

- The ToC review (2021) emphasises the importance of being explicit about how change is expected to happen based on the realities of delivering change in a highly complex environment. Annex 4 Figure 2 includes two other assumptions: (5) policymakers, practitioners, enterprises and communities are aware of and react positively to research evidence; and (6) research teams have consolidated experience in the use of a risk-based framework and in facilitating its use by others. Therefore, the first focuses on the audiences of the research while the second focuses on the competence of the messengers.

Overall, the ToC has been proven to be an impactful one, and the explicit nature of the underlying assumptions has helped the programme to identify and mitigate risks. Risk-based approaches to water security have been researched and widely disseminated, and various decision makers have been sensitised and trained to use the results. The latter has been achieved through the leadership and close involvement of observatories and practitioners themselves, given their credibility and close connection with decision makers. Staff from the University of Oxford, the observatories and partner organisations have played a vital role in communicating with decision makers to pass on ownership and to make them feel responsible to use the evidence, tools and policy advice being provided by the programme. The close relationship between the Programme Management Board and some members of the Global Advisory Board and Science Board have broadened REACH's influence and ensured high quality advice has continued to flow throughout the programme period.

The countries in the programme have had a varied degree of political and social stability. Bangladesh, Ethiopia and Kenya were selected initially as fragile states. Across the years of the programme they have endured conflicts, terrorism and revolutions, as well as Covid-19, all of which have disrupted the research. During times of disruption, the team have been able to pause field research to ensure the safety of the team, and pause stakeholder engagement when appropriate. Some situations required changes in the planned programme of work. For example, the WISER research was originally planned for different geographies in Ethiopia but the security situation made it unsafe to travel outside Addis Ababa, so work was shifted to include only one site near Addis Ababa, and additional sites were selected in Bangladesh and Kenya. The fieldwork in Ethiopia was, however, still constrained by the evolving security situation.

A success factor for REACH has been its ability to engage and build strong relationships with a range of stakeholders at different levels, which has contributed to the continuity of its research and influence even in the face of instability. International partners have also played a key role. For example, UNICEF has proven to be a highly valued partner through its policy influence and its own programming in the three countries. REACH has also enjoyed the collaboration and support of other international organisations in each location of its activity.

How has the ToC and logframe proven helpful to foster REACH's impact and to monitor progress towards it? Since its start, the REACH programme has generated comprehensive metrics to assess programme progress and performance against annual targets. REACH's performance was most recently reviewed in the Strategic Impact Review (2023), which mapped the logframe indicators against the theory of change to help understand what underlies the successful performance of REACH (see Annex 4 Figure 3). The review concluded that the three major categories of REACH's outputs – publications, events and training, and partnerships – have indeed been combined intentionally and with increasingly evidence-based approaches to produce the intermediate outcomes (influence and knowledge gained) and thereby generate outcomes and impacts.

The updated ToC in 2021 led to the monitoring of several additional indicators since 2022, which have all been met or exceeded, and which helped solidify improved knowledge and behaviour change of target audiences, including (a) inclusive digital engagement; (b) local, national and global actors with improved knowledge or skills; (c) concrete evidence of strengthening partnerships with practitioners, government, CSOs, industry and community members; (d) concrete evidence of REACH gaining influence in areas of water security; and (e) knowledge sharing and dissemination events not organised by REACH (but with REACH engagement). The requirement to monitor these indicators and meet the targets has undoubtedly brought greater attention of programme management and staff to these critical aspects to strengthen the 'gap' between research generation and its intended impact on policies and investments on the ground.

Most recent examples of the success of this approach has been the uptake of the Turkana low-level jet study results in East Africa, the continued expansion of the Uptime Consortium globally, the foundational evidence for the World Bank's Horn of Africa Groundwater for Resilience programme (HoAGW4R), the research results uptake to mitigate floods in coastal Bangladesh, the planned investments following the Water Quality Monitoring System (WQMS) and Integrated Catchments (INCA) model in Bangladesh, and the scaling up and scaling out of the SafePani model. Indeed, with the momentum that REACH has built up – including the focus on the new logframe indicators – the impacts of the REACH programme will continue to be felt for years to come.

Have any unintended outcomes or impacts arisen from the outputs? Interviews with key programme staff and Science Board members indicate that there have been no unintended outcomes or impacts worthy of note. A risk of funding a research programme with direct beneficiary targets is that it would be less likely to explore highly risky research themes (i.e., ones with a lower chance of success) given the onus on impacting people in a specified period of time (initially 7 years). It cannot easily be speculated what research themes might have been selected if it had not had the impact target. On the other hand, REACH did have flexibility to explore a range of research themes through many partners and take forward the themes and partners that held most promise.

A risk of supporting early career researchers was that their focus might be on gaining publications and less on achieving impact. However, this does not seem to have transpired, aided by the strong emphasis of REACH leadership from the start on conducting impactful research.

One positive result of REACH – which was not a wholly unintended impact given the nature of systems change research – was that many non-poor and non-vulnerable populations have been impacted, or will be impacted, because some policy changes and investments influenced by REACH could not be exclusively targeted at poor and vulnerable populations (e.g., Kenya Water Act, flood mitigation in Bangladesh, SafePani in healthcare facilities and schools, and several others).

How was REACH adaptive? Several course changes were made during the life of the 10-year REACH programme. Three of the first-wave observatories were phased out according to the initial plan: (1) Matlab – when it was indicated by the Bangladeshi authorities that the Matlab District was sufficiently researched, the research programme shifted to more vulnerable and less researched regions; (2) Wukro Observatory was closed down in 2021 due to the escalating conflict in Tigray, Ethiopia; and (3) the Abbay basin Observatory phased out as per original work plan. The other five observatories continued into REACH's extension period.

Another area where REACH has been adaptive is in the development of research collaborations, including through partnership funding. Some early partnerships evolved through the programme (e.g., international partners such as International Food Policy Research Institute, Rural Water Supply Network, International Water Association, and IRC WASH, and in-country partners such as WLRC, Kitui Water Services Maintenance Trust Fund, and International Centre for Diarrheal Disease Research, Bangladesh). Other grants – while successful – were not extended. As it became clear later in the programme which partners were the right ones to achieve impact on the ground or conduct the specific research needed, they were contracted accordingly. The proportion of catalyst and larger grant budget that was allocated to partners outside the original consortium (92% against a target of 80%) indicates how REACH had to develop new partnerships to succeed.[8]

8 This is measured using Output Indicator 3.2(b). Partnership Funding budget information are available in the REACH Annual Reports Annex D (Downstream partner mapping).

Photo: © Rob Hope

Management and governance

This section identifies how the programme's partnerships have represented pathways to impact; it assesses how the Global Advisory Panel and the Science Board have fostered engagement with practitioners; and it evaluates how REACH's management of finances, risk, and monitoring & evaluation have supported the programme's impact.

How has the programme's partnerships represented pathways to impact? REACH has been successful in engaging a range of partners both through funding and non-funding arrangements. As per Output Indicator 3.2(a), each and every Partnership Funding project has had at least 1 success story published. The local research and practitioner partnerships have been vital in ensuring research is home grown and owned locally. However, without partnerships with government and international agencies, these initiatives would have remained local research findings, but not impacted broader domestic populations or had the opportunity to be scaled in the way that they have. The leveraging of £131 million by REACH through at least 25 funding partners – though difficult to prove causality for the full amount of funding – does provide solid evidence of the reach that the REACH programme has achieved. This would not have been achieved without – first, the locally-driven but globally-relevant research 'on the ground' that included tool, models and best practices; second, the uptake in local and national policies and investments; and third, the ability to convince international funding agencies of the relevance and value-for-money of these proven approaches. In a nutshell, this is the pathway to impact that REACH has achieved.

How did the Global Advisory Panel and the Science Board help foster engagement with practitioners? REACH benefitted from the strong commitment of a large number of its GAP and SB members. Their composition was a key element of the success of REACH: both bodies were unusual due to the number of members from developing countries (3 in each) and women members (at least half of the GAP) including gender specialists, which were both monitored under Output Indicator 3.1.

REACH leadership found ways of getting the most out of their advisory groups. The traditional GAP approach of holding in-person meetings evolved to a more flexible approach with online and bilateral engagement, thus saving costs and making efficient use of limited time of GAP members. Early input from the GAP focused on the importance of REACH becoming a cohesive programme of research which was more than the sum of its parts, feedback which was taken on board by the leadership team. For example, as the programme evolved, opportunities were developed for cross-learning between observatories and countries.

Monthly internal webinars of REACH staff and partners – to which GAP and SB members are invited – have helped nurture a sense of community and identity. Knowledge management and research dissemination were key elements from the start, enlisting RWSN to support REACH achieve its goals from the definition of the programme to its closing phase. The SB and GAP also helped REACH grapple with innovations around gender and capacity-building of research institutions in the three partner countries, strengthening REACH leadership's confidence in the adopted approaches.

How did REACH's management of finances, risk, and monitoring & evaluation support the programme's impact? The programme administration and management contributed vitally to the success of REACH. On finances, REACH had a dedicated financial manager. Financial management followed University of Oxford procedures, including auditing, and FCDO received a twice-yearly financial report. Prior to the country agreements, the University of Oxford conducted a due diligence review of partner organisations. There was effective planning, reporting and auditing of country programmes. While sufficient funds were released to the Observatories to enable cash flow and activities to be implemented according to the plan, undue financial risk was avoided by releasing funds based on spending and on meeting milestones, which incentivised good performance. Non-financial risks were minimised through having a solid ToC and explicit assumptions (see previous section), and issues arising were dealt with in a timely way. The strength of REACH's monitoring and evaluation system has been variously covered above. Through having a comprehensive set of impact, outcome and output indicators that were regularly monitored and reviewed – and whose targets were all met and in many cases exceeded – and having at least six different strategic review processes in just six years[9] – it could be concluded that REACH has achieved 'best in class' in terms of its monitoring and evaluation.

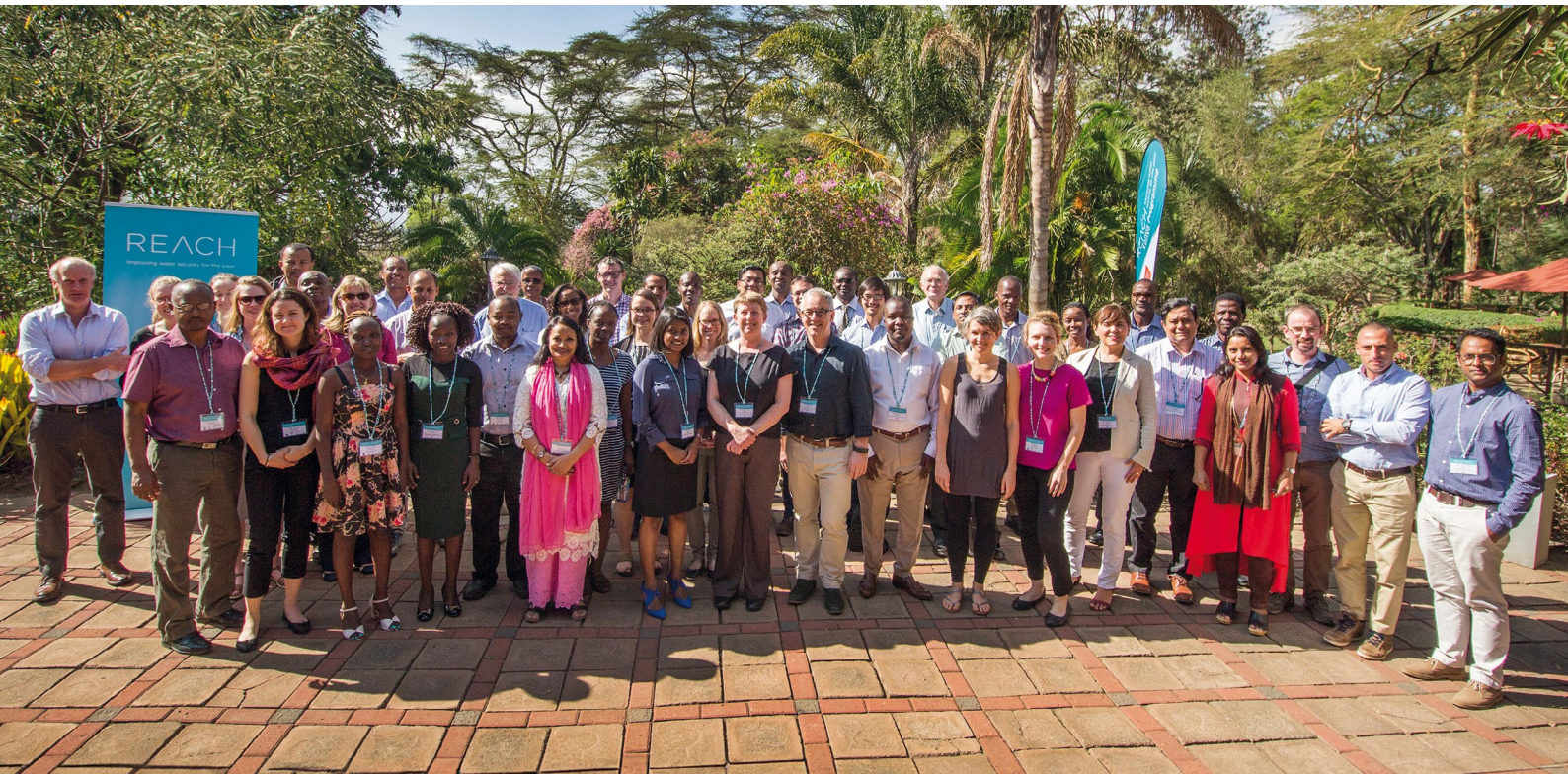
9 REACH impact review report and response (2018), the Global Strategy (2020), the Theory of Change review and response(2020), the Gender Strategy revisions (2021), the Exit Strategy (2023) and the Strategic Impact Review (2023).

Photo: © Alice Chautard

Conclusion

The present review has used both quantitative and qualitative evidence available from the REACH programme to answer a range of questions relating to its performance.

Given the size, length and complexity of the programme, it has been no small task to summarise the programme's performance in a few words or even a brief report. However, drawing on the logframe and financial reporting, and various other reviews including FCDO's own annual review, it is clear that the REACH programme has performed very highly. It has reached beyond its target of 10 million beneficiaries, is set to benefit several times this number in future, and has exceeded its leveraging of funds target by 100%. It has also leveraged other research funds to contribute to REACH's objectives. The VfM analysis which drew on selected efficiency indicators also demonstrates that a high degree of value for money was achieved by the REACH programme. Much of this would not have been achieved with a traditional research programme, especially one of a short time duration. Indeed, the close relationships developed with practitioners in the programme countries and the funding of a ten-year research programme to allow research to be translated into policies and programmes on the ground – were strong enabling factors for REACH to achieve and surpass its targets.



Annex 1: Total REACH Beneficiaries 2015-2024

Poor people with improved water security by location, project, achieved/ projected and direct/indirect beneficiaries[a]

Achieved	Projected	Country	Project	What 'beneficiary' means	ICF#1 Beneficiaries		Year reported
					Direct	Indirect	
-	25,000,000	East Africa	Turkana low-level jet study*	Population living in Horn of Africa benefiting from more robust analysis of drought and flood patterns and extremes	0	0	2024
5,000,000	-	Kenya (plus 15 other countries)	Uptime results-based funding, including FundiFix*	Population living in service areas with guaranteed reliable water services[10]	5,000,000	0	2017-2023
-	3,344,300	Kenya, Somalia, Ethiopia	World Bank Horn of Africa Groundwater for Resilience	Population with new or rehabilitated climate resilient water services	0	0	2022, 2024
1,500,000	-	Bangladesh	Hospital WASH and environmental hygiene*	Population attending public hospitals with improved WASH	0	1,500,000	2022, 2024
1,000,000	-	Kenya	Kenya Water Act (2016)*	Population with water service improvement[11]	0	0	2017

10 1.5 million in 2023, 1 million in 2022, 114,000 in 2021, 1.2 million in 2020, 40,000 in 2019, 40,100 in 2018, 32,900 in 2017.

11 The estimate is based on 57% of rural Kenyans using 'improved water supplies' (JMP, 2015) which equates to 19 million people who could benefit from private sector delivery of water services. Assuming 50% of rural people are 'poor' (9.5 million) and 10% participation by 2022 this would increase water security for 1 million poor people.

Achieved	Projected	Country	Project	What 'beneficiary' means	ICF#1 Beneficiaries		Year reported
					Direct	Indirect	
1,000,000	-	Bangladesh	Flood mitigation in coastal Bangladesh*	Population potentially with reduced flood risk by alternative engineering	0	1,000,000	2024
1,000,000	-	Bangladesh	WQMS system and INCA model for Greater Dhaka	Population exposed to polluted flood waters with ongoing investments	0	1,000,000	2021, 2024
33,000	300,000	Bangladesh	SafePani model*	Safe water for pupils in schools[12]	33,000	0	2020, 2022-23
312,665	-	Bangladesh	SafePani model*	Safe water for population served by healthcare facilities[13]	312,665	0	2020
293,200	-	Kenya	Water provision to excluded, drought-risk communities*	Population covered by UNICEF's programme	293,200	0	2020
110,000	-	Nepal	Piped supply with WQ monitoring*	Population covered by Helvetas' programme[14]	110,000	0	2020, 2024
80,000	-	Kenya	Hydroclimatic and GW analysis for Lodwar aquifer	Population benefitting from data provided to improve water security	0	80,000	2019
65,000	-	Ethiopia	Sustainable Land Management*	Beneficiaries from improved planning	32,500	0	2021

12 300,000 pupils to benefit from 2024-2030, while 20,000 benefitted in 2022 and 13,000 benefitted in 2020.

13 Rural healthcare facilities in Khulna district have a catchment population of 1,546,135 people (1,226,135 after subtracting children benefitting in schools). It is estimated 85% have water supplies and 30% population use public facilities.

14 REACH-supported operational monitoring services are provided to a total of 145 piped systems serving over 60,000 people within Helvetas's program area. In 2023, in partnership with Charity Water, Helvetas completed construction on an additional 86 water schemes serving over 50,000 people who are also benefitting from the REACH laboratories.

Achieved	Projected	Country	Project	What 'beneficiary' means	ICF#1 Beneficiaries		Year reported
					Direct	Indirect	
24,000	-	Ethiopia	Awash basin authority using REACH modelling*	Population of Metahara with fair/ sustainable water allocation	0	12,000	2019
5,000	-	Bangladesh	Schools with data log	Pupils covered by services in 30 schools	5,000	0	2018
1,200	-	Kenya	Caritas Maralal equipped borehole	Pastoralist community served following gendered water analysis	0	1,200	2020
10,424,065	**28,644,300**	**Total**			**5,786,365**	**3,593,200**	

Notes: [a] Excludes a further 91.5 million future beneficiaries presented in section 'Progress since 2023'. Final column "Year reported" reflects year in which impact numbers were claimed in REACH's Annual Report. Some numbers have been updated since year of reporting (see endnotes). Impacts with year '2024' are impacts reported in REACH's May 2024 Annual Report. * Indicates a Story of Change / Success Story was published. GW: groundwater. WQ: water quality. WASH: water, sanitation and hygiene.

Annex 2: International Climate Finance Beneficiaries

Poor people qualifying as International Climate Finance (ICF) beneficiaries, by ICF Criteria

Achieved[a]	Country	Project	Year reported	ICF#1 Criteria[b]			ICF#1 Beneficiaries	
				Targeted	Intensity	Additionality[c]	Direct	Indirect
5,000,000	Kenya (+ 15 other countries)	Uptime results-based funding	2017-2023	Yes	High	100%	5,000,000	-
1,500,000	Bangladesh	Hospital WASH and environmental hygiene	2022, 2024	No	High	100%	-	1,500,000
1,000,000	Kenya	Kenya Water Act (2016)	2017	No	Low	100%	0	0
1,000,000	Bangladesh	Flood mitigation in coastal Bangladesh	2024	No	Medium	100%	-	1,000,000
1,000,000	Bangladesh	WQMS system and INCA model for Greater Dhaka	2021, 2024	No	Medium	100%	-	1,000,000
33,000	Bangladesh	SafePani model	2020, 2022-23	Yes	High	100%	33,000	-
312,665	Bangladesh	SafePani model	2020	Yes	High	100%	312,665	-
293,200	Kenya	Water provision to excluded, drought-risk communities	2020	Yes	High	100%	293,200	-
110,000	Nepal	Piped supply with WQ monitoring	2020, 2024	Yes	High	100%	110,000	
80,000	Kenya	Hydroclimatic and GW analysis for the Lodwar aquifer	2019	No	Medium	100%	-	80,000

Achieved[a]	Country	Project	Year reported	ICF#1 Criteria[b]			ICF#1 Beneficiaries	
				Targeted	Intensity	Additionality[c]	Direct	Indirect
65,000	Ethiopia	Sustainable Land Management	2021	Yes	High	50%	32,500	-
24,000	Ethiopia	Awash basin authority using REACH modelling	2019	No	Medium	50%	-	12,000
5,000	Bangladesh	Schools with data log	2018	Yes	High	100%	5,000	-
1,200	Kenya	Caritas Maralal equipped borehole	2020	No	High	100%	-	1,200
10,424,065							**5,786,365**	**3,593,200**

[a] Includes only achieved results from Table 1, not projected results.

[b] Number of people supported to better adapt to the effects of climate change as a result of International Climate Finance

[c] Supplementary Guidance to ICF Results Methodology Notes: Additionality and Attribution

Annex 3: Partners with funding leveraged by REACH

Project by value, funder and year of funding

Value (£)	Project / funder	Funding	Year
39,000,000	Basin Management Support for Resilient Inclusive Growth and Harmonized Transformation (BRIGHT)	Government of the Netherlands	2024
19,910,000	Sustainable Transformational and Accessible Water Interventions (STAWI)	USAID	2023
17,700,000	Water Security and Sustainable Development Hub	UKRI GCRF	2019
13,000,000	REAL WATER	USAID	2022
12,000,000	Global programme on Sustainable WASH Systems	USAID	2017
11,200,000	Integrated landscape management project governments	Dutch/Ethiopian Governments	2021
4,782,000	A Pan-African and Transdisciplinary Lens on the Margins: Tackling the Risks of Extreme Events (PALM-TREEs)	CLARE	2023
3,501,002	Next Wave of Water Governance (NEWAVE) training	EU (H2020)	2020
3,036,000	Uptime Catalyst Facility (£1.606m in 2023, £730k in 2022, £700k in 2021)	Uptime Catalyst Facility & Funders	2021-3
3,000,000	Earth Observation for Flood and Drought Resilience	UK Space Agency	2017
700,000	Governing African Transitions (2017-2020)	Oxford Martin School	2018
372,059	Drinking Water Service Management for Rural Bangla-desh (SafePani) (£351,816 in 2021, £115,143 in 2019)	UNICEF	2019, 2021
359,813	Accelerated grants		2018
300,000	Condition monitoring of handpumps to predict failures	UNICEF	2016
244,212	Open call for research and development projects to future research leaders 2018	Swedish Research Council	2019
238,000	Global Water Risks (Koehler)	NOW (Dutch Government)	2022

Value (£)	Project / funder	Funding	Year
200,000	Evidence synthesis on gender and social outcomes of WASH interventions (SEI)	CEDI	2020
200,000	Development of New Biosensors	Innovate UK	2019
184,000	Deploying and testing 500 data loggers in Matlab and use of vehicle	UNICEF Bangladesh	2017
150,000	Digital Innovations for Development in Africa (DIDA)	GCRF Internal	2020
148,460	Enabling Safe Rural Water Services in Kenya	MRC	2023
130,000	Report published on water-related economic drag on the Awash basin, Ethiopia	Global Green Growth Institute	2016
120,000	Universal Drinking Water Security	UNICEF Bangladesh	2016
104,551	Women's empowerment and access to water, sanitation, and hygiene in Kenya	SSHRC – Insight Grant	2020
80,000	Unilever Africa in partnership with UNICEF Kenya	Unilever	2016
79,865	Rapid review on hygiene system strengthening	Hygiene Futures	2023
68,914	Performance-based funding for rural water supply in Africa	GIZ	2019
50,516	Food safety in households with young children and its impact on their nutritional and health status in informal settlements in Nairobi, Kenya	UoN Research and Development Awards	2021
50,000	UK Industry and Science supporting clean river policy and practice in urban Asia	Strategic Priorities Fund QR (SPF)	2020
49,910	Exploratory study of microbial safety of water for healthcare use in Bangladesh	GCRF Internal	2020
45,000	Piloting an affordability methodology in coastal Bangladesh	Research England Internal GCRF grant	2020
40,000	Citizen and Decision-maker Attitudes to Freshwater Pollution in Dhaka, Bangladesh	WSUP	2019
25,412	River Health Card Project	Bangladesh Dep. of the Environment	2021
20,891	Matched funding for Bangladesh coastal risk modelling project	CSIRO	2018
£131,090,605			

Annex 4: REACH's Theory of Change

Figure A1: REACH logical framework / theory of change (2017)

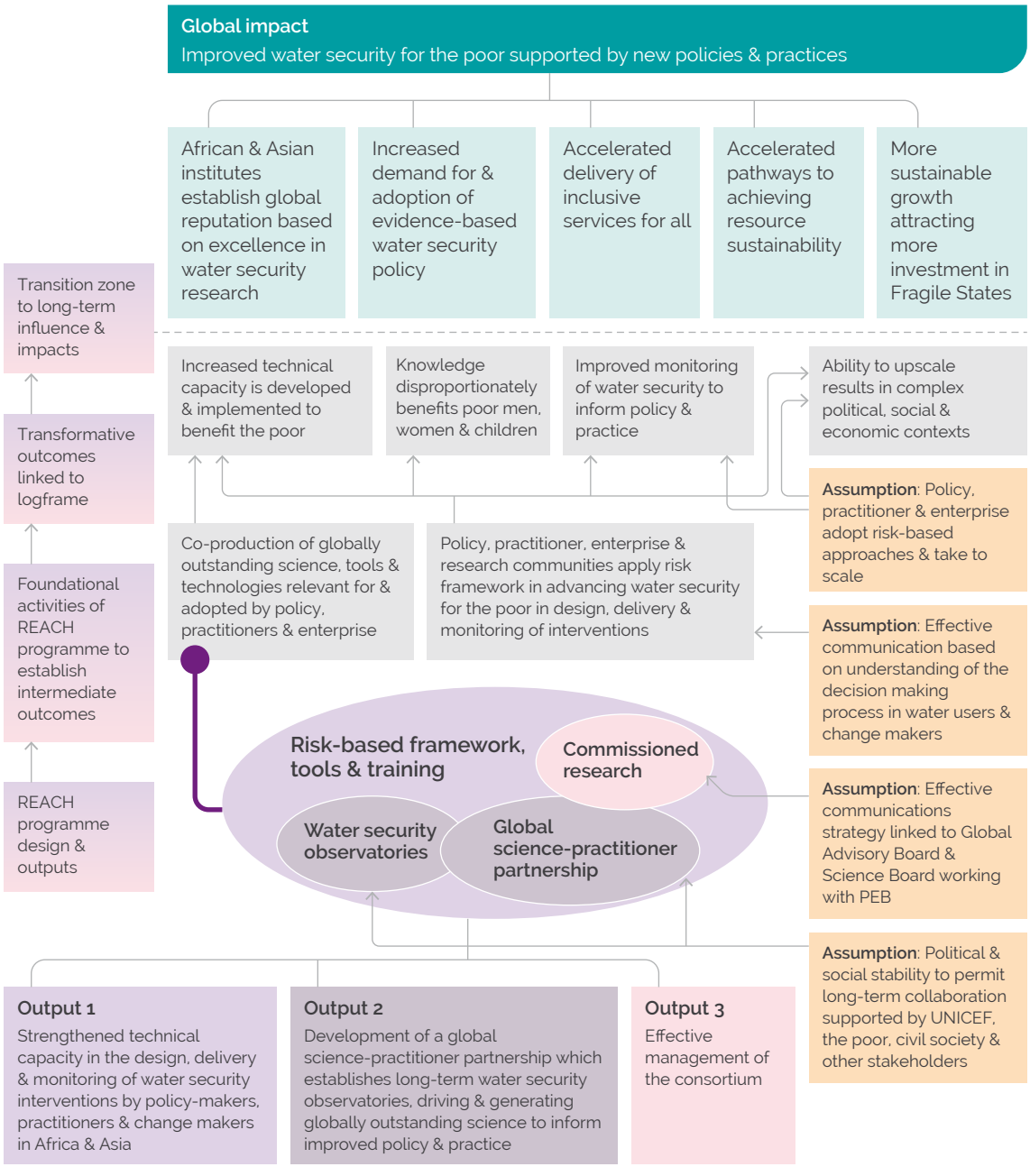


Figure A2: REACH logical framework / theory of change following the theory of change review in 2021

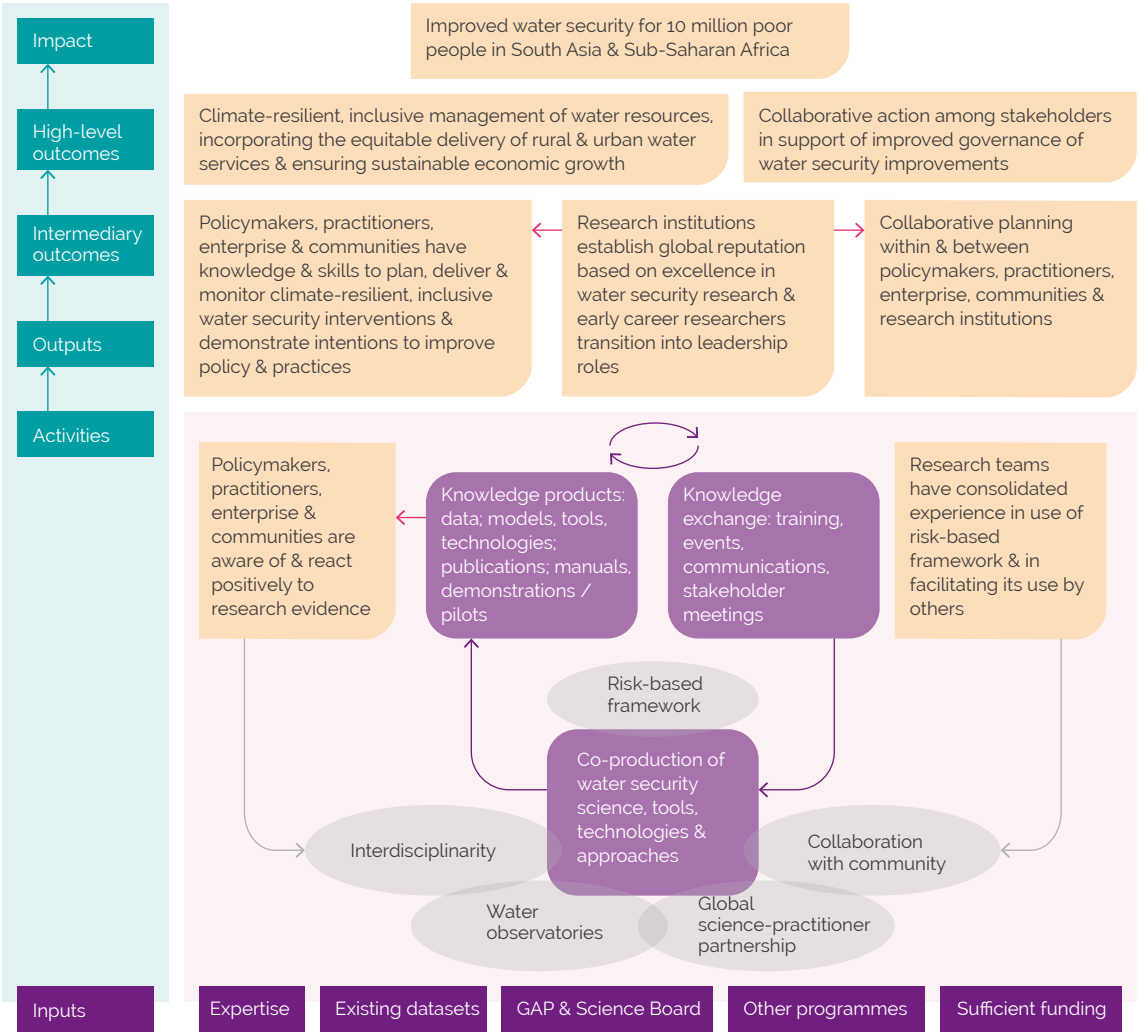
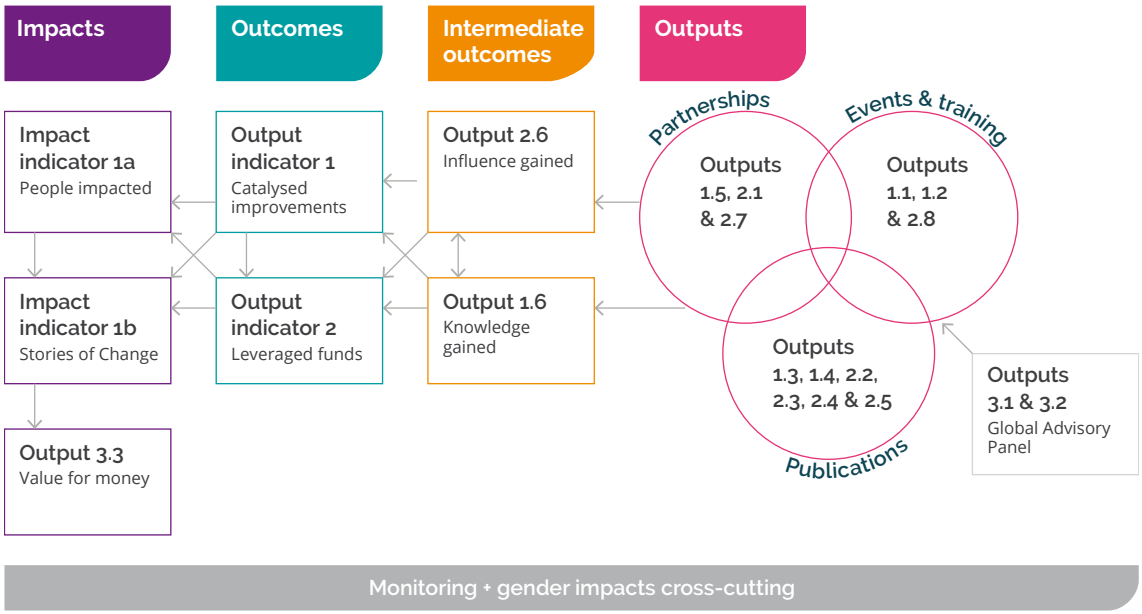


Figure A3: Interpretation of the REACH theory of change in the Strategic Impact Review (2023)



Innate Values Ltd.

Innate Values Ltd. provides economics and financing expertise to improve development outcomes in water, sanitation and hygiene (WASH), water resources, health, environment and climate resilience. Clients include a variety of International Organisations, Academia, Governments and Civil Society Organisations.

Contact us

Contact us via our website: www.innatevalues.com