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IOB Evaluation

Policy review of Dutch aid policy for improved water management, 2006-2016

Bangladesh country study

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Preface

This Bangladesh country case study was conducted in the framework of a policy review of Dutch aid policy for improved water management over the period 2006 to 2016. As part of the study, a three-member evaluation team undertook a field study in Bangladesh from 16 October to 4 November 2016. The country case study was led by Dr Stephen Turner, who also wrote the case study report. In addition, the team was composed of Rita Tesselaar, coordinating policy researcher of the Policy and Operations Evaluation Department (IOB) of the Ministry of Foreign Affairs of the Netherlands, and Nityananda Chakravorty, senior Bangladesh water expert.

The evaluation team for this Bangladesh country case study is very grateful for the patient support of the many informants who helped to provide documents, information and opinions, in Bangladesh and the Netherlands. People met, either in person or through Skype or phone calls, are listed in Annex 5.

The team greatly appreciates the patience of those project informants who took the trouble to complete the online survey that was sent them (Annex 3) and to give their thoughtful comments.

In particular, thanks to the Embassy of the Kingdom of the Netherlands in Dhaka for all the hospitality and assistance the evaluation team received – especially from the staff responsible for the water sector, Peter de Vries and Khaled Khaleduzzaman.

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List of abbreviations

7FYDP	Seventh Five Year Development Plan
ADB	Asian Development Bank
AWM	across water management themes
BARD	Bangladesh Academy for Rural Development
BAWIN	Bangladesh Water Integrity Network
BDP	Bangladesh Delta Plan 2100
BEMO	Activity Appraisal Document (Beoordelingsmemorandum)
BRAC	Building Resources Across Communities
BWDB	Bangladesh Water Development Board
BWP	Bangladesh Water Partnership
Cap-Net	International Network for Capacity Development in Sustainable Water Management
CCPT	cross-cutting policy themes
CDSP	Char Development and Settlement Project
CEGIS	Centre for Environmental and Geographic Information Services
DAC	Development Assistance Committee
DAE	Department of Agricultural Extension
DGIS	Directorate-General for International Co-operation (Directoraat-generaal Internationale Samenwerking)
DME	Environment, Water, Climate and Energy Department (Directie Milieu, Water, Klimaat en Energie)
DML	Environment and Development Department (Directie Milieu en Ontwikkeling)
DP	Planning Directorate (in BWDB)
DP	development partner
DPP	Development Project Proforma
DRIVE	Development Related Infrastructure Investment Vehicle
DRR	disaster risk reduction
DUPC	DGIS - UNESCO-IHE Programmatic Co-operation
DWASA	Dhaka Water Supply and Sewerage Authority
E4L	Ecosystems for Life
EDDRP	Emergency Disaster Damage Rehabilitation Project
EDP	Estuary Development Programme
EFDRP	Emergency Flood Damage Rehabilitation Project
EIP	Early Implementation Projects
EKN	Embassy of the Kingdom of the Netherlands
EMM	Euroconsult Mott-Macdonald
EQ	evaluation question
EUR	Euro
FAO	Food and Agriculture Organization of the United Nations
FDW	Sustainable Water Fund (Fonds Duurzam Water)
FRERMIP	Flood and Riverbank Erosion Risk Management Investment Programme

GED	General Economics Division
GEEW	gender equality and the empowerment of women
GOB	Government of Bangladesh
GON	Government of the Netherlands
GPWM	Guidelines for Participatory Water Management
GWAPB	Gender and Water Alliance Programme Bangladesh
GWP	Global Water Partnership
ha	hectare
HGIS	Integrated International Co-operation Group (Homogene Groep Internationale Samenwerking)
ICZM	integrated coastal zone management
IFAD	International Fund for Agricultural Development
IFI	international financial institution
IGG	Inclusive Green Growth Department (directie Inclusieve Groene Groei)
IOB	Policy and Operations Evaluation Department (directie Internationaal Onderzoek en Beleidsevaluatie)
IPSWAM	Integrated Planning for Sustainable Water Management
IUCN	International Union for Conservation of Nature
IWRM	integrated water resource management
LCG	Local Consultative Group
LGED	Local Government Engineering Department
LCS	Landless Contracting Society
M&E	monitoring and evaluation
MASP	Multi-Annual Strategic Plan
MANFQ	Ministry of Agriculture, Nature and Food Quality (Ministerie van Landbouw, Natuur en Voedselkwaliteit)
MDG	Millennium Development Goal
MFA	Ministry of Foreign Affairs
MHSPE	Ministry of Housing, Spatial Planning and the Environment (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu)
MTPWWM	Ministry of Transport, Public Works and Water Management (Ministerie van Verkeer en Waterstaat)
MTR	mid-term review
MWR	Ministry of Water Resources
nd	not dated
np	no page number
NWO	Netherlands Organisation for Scientific Research (Nederlandse Organisatie voor Wetenschappelijk Onderzoek)
NWP	Netherlands Water Partnership
NWRC	National Water Resources Council
O&M	operation and maintenance
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
ORIO	Facility for Infrastructure Development (Ontwikkelingsrelevante Infrastructuurontwikkeling)

PPP	public-private partnership
PvW	Partners for Water (Partners voor Water)
PWM	participatory water management
RVO	Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland)
SaFaL	Sustainable Agriculture, Food Security and Linkages
(S)NWM	(sub) national water management
SRHR	sexual and reproductive health and rights
SSSU	Survey and Study Support Unit
SSWRSDP	Small-Scale Water Resources Sector Development Project
SWAIWRPMP	South West Area Integrated Water Resources Planning and Management Project
SWFF	Securing Water For Food
t	tonne
TA	technical assistance
ToC	theory of change
ToR	terms of reference
TWM	transboundary water management
UDDP	Urban Dredging Demonstration Project
UNDP	United Nations Development Programme
UNESCO-IHE	United Nations Educational, Scientific and Cultural Organisation Institute for Water Education
USAID	United States Agency for International Development
VEI	Vitens Evides International
WANI	Water and Nature Initiative
WARPO	Water Resources Planning Organisation
WB	World Bank
WFP	World Food Programme
WFPF	Water Financing Partnership Facility
WIN	Water Integrity Network
WMA	Water Management Association
WMAg	water management in agriculture
WMCA	Water Management Co-operative Association
WMG	Water Management Group
WMIP	Water Management Improvement Project
WMO	water management organisation
WMO	World Meteorological Organisation
WSSF	Water Sector Support Fund
WUA	Water User Association
WUG	Water User Group

Summary

Background

The Policy and Operations Evaluation Department (IOB) of the Netherlands Ministry of Foreign Affairs (MFA) is undertaking an evaluation of Dutch aid policy for improved water management, 2006-2016. As part of this evaluation, country case studies have been commissioned, focusing on those countries that received the largest amounts of bilateral funding for water management activities. These studies are intended to evaluate the results of the water management policy cycle in each country, focusing on effectiveness and efficiency criteria. Each of these studies will be a stand-alone review that can be read and used separately, but will also form inputs to the overall policy evaluation. The first country study concerns Bangladesh.

Main findings

Dutch development aid contribution

1) *The rationale for Dutch support included the assumption that subsidising livelihoods in flood-prone environments is appropriate.*

The core rationale for Netherlands support to water management in Bangladesh was commitment to helping the people of that originally very poor nation to build sustainable livelihoods and a higher standard of living. A basic assumption was that the levels of subsidy inherent in securing millions of livelihoods in environmentally vulnerable deltas like those of Bangladesh and the Netherlands are acceptable. It is hardly surprising that this assumption has not been empirically assessed. Neither country has an alternative.

2) *There is still a strong respect in Bangladesh for Dutch water management capacity and commitment.*

Part of the core Dutch commitment was a perception of similarities between the environmental and water management challenges faced by the two delta nations, and a belief that the achievement of water safety and water security was fundamental to sustainable development overall. The challenges are both demographically and environmentally more severe in Bangladesh than in the Netherlands. It makes sense for the Netherlands to work with Bangladesh to tackle its huge water management challenges. Despite budget reductions and inevitable difficulties and shortcomings in project implementation, there is still a strong respect in Bangladesh for Dutch water management capacity and commitment.

3) *The MFA allocated a total of EUR 201 million through the EKN's delegated budget for water resource management activities in Bangladesh during the review period.*

The MFA budgeted EUR 201 million of delegated funding through the Netherlands Embassy (EKN) for water management activities in Bangladesh over the review period, disbursing EUR 132 million on these activities by the end of 2016.[1] Some of these bilateral projects

[1] Some of the budgeted projects continue beyond 2016, so their disbursements are incomplete.

involved water management activities in many parts of the country. But much of the effort during the review period was concentrated on the more vulnerable southern parts of Bangladesh. In earlier decades, support initially focused on response to actual or potential water-related disasters and had a strong engineering and infrastructural component. By 2006, however, there was recognition that physical infrastructure was not enough, and that institutional development for competent and sustained operation and maintenance (O&M) was essential. It was also recognised that effective management must be motivated by improved revenues from the managed resources. This led more recent Dutch-supported projects to put more emphasis on agricultural extension and value chain development with users whose water management infrastructure these projects were strengthening.

4) Activities supporting water management in agricultural and rural development received the largest share of the EKN's delegated budget.

The country study adopts the categorisation of water management activities used in the overall evaluation. This distinguishes (sub) national water management planning and implementation activities. Planning received 15% of the MFA budget delegated to the EKN in Bangladesh over the review period. Implementation is subdivided into (river) basin management (no activities in the Bangladesh portfolio under review); coastal development (which received 15% of the Bangladesh delegated budget); disaster management (16%); and ecosystem management (no activities). A second principal category concerns water management in agriculture, subdivided into activities focusing on 'crop per drop' enhancements to water productivity (4% of the total delegated budget over the period) and activities with a broader focus on water management in agricultural and rural development (47%). A third category is transboundary water management (TWM: one project in Bangladesh, with 2% of the total delegated budget). Finally, 2% of the delegated budget was committed to cross-cutting activities supporting improved water resource management.

5) Some activities funded centrally by the MFA had links to Bangladesh.

In addition to the activities supported with delegated MFA funding through the EKN, the study reviews the MFA's centrally funded activities that had links to Bangladesh. As reporting on these centrally funded activities is not broken down by country of expenditure, it is not possible to say what MFA expenditures through this channel were in Bangladesh. These activities included capacity development, research, the promotion of gender equity and good governance in water management, innovation and technical development. Beyond the direct purview of the MFA, the Partners for Water programme committed a total EUR 1.5 million to activities in Bangladesh during the review period. This mainly supported water productivity and disaster risk reduction work.

Policy effectiveness

6) A number of activities achieved short- to medium-term effectiveness. But long-term effectiveness, and hence full sustainability, are in doubt.

The study's findings emphasise the obvious dependence of full effectiveness – the achievement of genuinely meaningful outcomes – on the achievement of sustained positive results. Any

other kind of 'effectiveness' is of limited value. During the review period, Dutch support for local level water management planning was 'effective', leading (in general) to technically effective construction or rehabilitation of water management infrastructure. However, governance challenges jeopardised this achievement. So, more fundamentally, did the lack of assurance about maintenance and consequent long-term viability. Netherlands-supported programmes were effective in achieving short- to mid-term livelihood benefits for the rural poor, including institutional capacity and social empowerment. But the growing threats of climate change, and the same doubts about maintenance and long-term viability, diminished the value of these achievements, however important they were in the short to medium term.

7) Water management programmes supported by the Netherlands adopted participatory approaches, with partial success.

In keeping with the global Dutch policy emphasis on integrated water resource management (IWRM[2]), support to water management in Bangladesh emphasised participatory approaches. Major effort was devoted to local institutional development for this purpose (sometimes rebuilding water management organisations (WMOs) that earlier projects had helped establish). The theory of change (ToC)[3] assumption that water users do contribute significantly to the management and maintenance of water infrastructure proved largely true at this local level, at least during periods of project presence. Insufficient provision for institutional maintenance (see below) meant that it was less true after projects had closed. A related ToC assumption was that participatory approaches could effectively combine the interests of the poor and the better off, so that the latter would support, not obstruct, the work of WMOs. As in most global experience with common property resource management, that assumption was weak.

8) The principles adopted and the technical approaches used were generally appropriate and effective.

At a broad technical level, the ToC for Dutch support to water management in Bangladesh assumed that the paradigms and approaches promoted by the Netherlands were relevant and appropriate, and that the techniques used were feasible, practical and affordable in Bangladesh conditions. From one perspective, these assumptions were correct. The IWRM principles to which Dutch support adhered were appropriate. Like earlier interventions, the projects in this ten-year portfolio continued to show that participatory approaches emphasising gender equality and the empowerment of women, and the interests of the very

[2] IWRM 'is defined as a process which promotes the coordinated development and management of water, land and related resources in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems … The basis of IWRM is that the many different uses of water resources are interdependent … Integrated water resources management is based on the equitable and efficient management and sustainable use of water and recognises that water is an integral part of the ecosystem, a natural resource, and a social and economic good, whose quantity and quality determine the nature of its utilisation … An IRWM approach focuses on three pillars: an enabling environment of suitable policies, strategies and legislation for sustainable water resources development and management; putting in place the institutional framework through which to put into practice the policies, strategies and legislation; and setting up the management instruments required by these institutions to do their job' (Global Water Partnership, 2017).

[3] As a theory-based evaluation, the study identified the theory of change implicit in Dutch water management policy and programme design in Bangladesh, and the assumptions seen to underlie that theory. The report comments on the accuracy of some of those assumptions.

poor and marginalised, could work. Again building on past experience and Dutch global expertise, the water engineering methods applied were shown to work too. It is too soon to say whether support for delta level planning in its current format – the Bangladesh Delta Plan (BDP) 2100 – has been effective. As explained below, effective results in this field will require a fundamental shift in understanding of the delta planning concept. They will also require careful learning of the lessons offered by previous support for integrated coastal zone management.

9) *Not enough was done to ensure long-term institutional maintenance.*

Just like a canal or a sluice gate, a local or national institution needs ongoing maintenance. This means the long-term provision of advisory, facilitation and training services to institutions, necessitated by the periodic replacement of experienced, trained office holders and staff by newly elected or appointed people, and by the common need for local institutions to be supported in their engagement with higher-level authorities. Strong immediate outcomes were realised in local institutional development through the establishment or reinforcement of WMOs that were initially active and effective. But the failure of the Government of Bangladesh (GOB) and of donor support to provide convincingly for institutional maintenance weakened confidence that WMOs would function in the longer term. At the national level, the conclusion is more immediately negative. The extent and effectiveness of Dutch support for institutional reform and development at national level – particularly in the Bangladesh Water Development Board (BWDB) – dwindled over the review period. There was no evidence that the relevant national institutions were significantly stronger at the end of 2016 than they had been at the start of 2006.

10) *Water management planning supported by the Netherlands did lead to action, at least at local level in the short term. But at larger scales, it is important to realise that planning is part of the long-term process of adaptive management as implementation unfolds. It is not a once-off exercise.*

A basic ToC assumption was that water management planning leads to action. This country study found that, at local level, planning work supported by Dutch funded projects did lead, at least in the short term, to water management action. Predictably, the issue was more complex at larger scales, where it was dominated in this review period by work towards the BDP 2100. The BDP experience led to realisation of the need to be clearer about what planning is, and specifically what the BDP is. It is too simplistic to make a binary distinction between planning and implementation. For complex challenges like delta management, planning must be the ongoing, adaptive management of uncertainty. Expectations among some stakeholders that completion of the BDP should simply be followed by an implementation programme were wrong. Instead, the completion of the current exercise should be seen as the end of the beginning – the start of a much longer-term process of more detailed planning, implementation and further planning over years and decades to come, all within an ongoing effort to strengthen the responsible institutions at national level.

11) *The limited support that the Netherlands provided for transboundary water management during the review period led to useful work, but could not address the fundamental political and institutional issues faced by Bangladesh and other riparian states.*

The theory of change assumed that TWM was politically and institutionally feasible and that support for it could therefore be effective. This assumption was not adequately tested in the design of the one project that the Netherlands supported in this field, which was only at the Track III level of stimulating interactions within civil society in the participating countries. While doing useful work at that level, the project was not equipped or expected to address the fundamental political and institutional issues between the relevant governments. Despite a generally good climate between Bangladesh and India, developments in transboundary water management relations during the review period did not confirm the political and institutional feasibility of TWM by Bangladesh and its neighbours.

12) *Despite sustainability challenges, Netherlands support for improved water management strengthened the position of women in ways that would be hard to reverse. The sustainability of benefits for the poor and marginalised was less assured.*

Netherlands policy emphasis on the cross-cutting issues of gender, environment, climate change and good governance was well reflected in the Bangladesh water management portfolio under review. Projects' experience with promoting gender equality and the empowerment of women raised familiar issues about how meaningful women's institutional participation was. But however real those issues might be, Netherlands-supported water management projects helped rural Bangladeshi women achieve social, institutional and economic advantages that are unlikely to be reversed. These projects' commitment to the very poor and marginalised was equally real. In this case, however, there could be less confidence about the scale and sustainability of the advances achieved, given the projects' inability to diminish the entrenched power of rural elites.

13) *Much has been achieved through Dutch support to improved water management in Bangladesh. Major questions remain about the sustainability of those achievements. The challenges of poverty, water insecurity and climate change are still enormous. With its continuing strong image as a trusted partner in Bangladesh water management, the Netherlands should plan to work with the country through a time of transition and change. Despite past weaknesses and current obstacles, this is not the time to leave.*

Despite budget reductions and inevitable difficulties and shortcomings in project implementation, this country study found that there is still a strong respect in Bangladesh for Dutch water management capacity and commitment in tackling environmental and development challenges that remain immense, and are exacerbated by climate change. Poverty and water insecurity are still severe for millions of Bangladeshis. The challenge now is how best to sustain the Netherlands' valued contribution as policy and funding opportunities evolve further in The Hague. This is a time for transition and change. It is not a time for exit. Whatever doubts there may be about the performance of Dutch aid policy for water management to date, exit would be the wrong conclusion. Instead, as recommended below, the Netherlands should plan an evolving profile and role as the best water management partner that Bangladesh has.

Policy efficiency

14) *Routine reporting was done, but did not generate the kind of data needed for rigorous assessment of operational efficiency. Little of the available evaluation documentation focuses on the basic sustainability challenges. In an ongoing cycle of 'build, neglect, repair', programme design did not adequately recognise how much was being invested in the rehabilitation of operational and institutional infrastructure that had been built with earlier investments.*

Like most development work everywhere, this portfolio of water management activities was not monitored or reported to generate data on which thorough analysis of efficiency could be based. Mid-term reviews and evaluations often commented on operational efficiency, but this was usually on the basis of reviewers' professional judgement rather than empirical analysis. At the level of programme management efficiency, the study concludes that the Netherlands was not effective as expert, broker and diplomat in enhancing collaboration between concerned actors within the Dutch government, the Netherlands water sector and Bangladesh, and enhancing complementarity and synergy of activities. This was despite the clear ongoing technical competence and strength of many of the contributions by the Dutch water sector. As in much development management around the world, project time and budget extensions were common, signalling unrealistic planning and/or inadequate operational efficiency in many cases. Such signals call for increased analytical and management attention to the factors that prevent planned project results being achieved within schedule and budget. Continuing investment in the 'build, neglect, repair' cycle suggests that not enough of this analysis occurred. Continuing that cycle into the future cannot be justified.

15) *Support for water management in agriculture led to challenges of management and co-ordination as water management projects became agrarian or rural development projects.*

Two challenges arose as 'water management' projects were implemented as agrarian or rural development projects. The first was adequate administrative and managerial co-ordination of the many activities and the multiple GOB and NGO agencies involved. The second was adequate substantive, operational integration, to make the various elements complementary in practice as well as in theory. After a longer period of operations in the special context of new settlement and land use, the Char Development and Settlement Project (CDSP) made more progress with the necessary co-ordination and integration than the Blue Gold programme, where the disconnects remained evident. Given mostly unsuccessful international experience in earlier decades, it is risky to convert water management interventions, even partially, into integrated rural development programmes.

16) *The expanded set of Dutch funding channels, instruments, facilities and mechanisms that became available during the review period (partly in order to promote the engagement of the Dutch water sector) did not significantly enhance programme effectiveness in Bangladesh. The intended synergy between the various MFA and other support funds and instruments was not achieved.*

The country study focuses on the policy and programmes of the MFA. But it also comments on the growing number of funding channels and instruments used by, or in partnership with, other Dutch government ministries and agencies, as policy increasingly promoted the engagement of the whole Netherlands water sector in development co-operation with

countries like Bangladesh. To fulfil this policy emphasis on broader engagement of the Netherlands water sector, a larger number of Dutch agencies and stakeholders were given roles through an expanded suite of instruments, facilities and mechanisms, alongside the established structures for bilateral aid through the MFA. The theory of change assumed that this suite of methods and tools would be relevant, complementary, synergistic, effective and efficient. This assumption was inaccurate. A wide range of valuable work was done. But the proliferation of activities, systems and procedures proved more confusing than synergistic. In the context of the Bangladesh water management sector, the value added was marginal.

17) *Dutch support delivered good technical skills and capacity, but these did not optimally complement local capacity. Inadequate institutional development meant that the conventional format of consultant teams implementing projects continued to be used.*

The study found a majority view that Dutch technical inputs remain valuable, but that their quality should not be taken for granted. A bigger assumption in the ToC is that such external inputs can be structured to be complementary to local capacity. Synergy should be achieved. This was less often the case. Project teams achieved uneven success in integrating local and expatriate capacity and in building authority relationships that strengthened domestic institutions while ensuring adequate rates of technical performance. Dutch water management policy did not succeed in supporting adequate institutional development within the GOB between 2006 and 2016, so that conventional projects with large consultant teams were still seen to be necessary. The prospects of sustainability were not improved.

18) *Dutch companies and knowledge institutions participated in, contributed to and profited from the country's support to improved water management in Bangladesh. But, outside the consulting sector, the appetite for commercial engagement was limited, and there was uncertainty about what the official commitment to 'aid, trade and investment' meant for Bangladesh.*

Dutch companies, universities and other knowledge institutions benefited through aid-related contracts and subsidies, thus building their country and water management expertise and networks and improving their positioning towards funding agencies such as multilateral development banks. Bangladesh was one of the major platforms on which the Netherlands built its reputation for global expertise in water management. While the sector remained lucrative for Dutch consulting companies engaged in the various projects funded by the MFA and other donors, and while a few Dutch firms in areas like dredging were certainly able to increase their turnover in the country, the consensus was that Bangladesh is a difficult place for outside investors and that many of the more commercial pilots and contacts sponsored through the Netherlands Enterprise Agency (RVO) would not achieve sustained results. There was uncertainty, too, about whether the objective was trade for aid, or aid for trade, or – as the MFA officially put it in its 2013 policy letter, 'aid, trade and investment' – and what that meant in practice. The prospects for Dutch 'aid, trade and investment' naturally vary from one country to another. In the case of the Bangladesh water management sector, they are limited so far.

Recommendations

The primary purpose of this country study is to support IOB's overall evaluation of Dutch aid policy for improved water management – not to make comprehensive or authoritative recommendations about the development of support to water management in Bangladesh. However, drawing on the contextual analysis and findings set out above, a number of suggestions can be made about how to shape that support in the years ahead, during which a significantly different relationship is likely to develop between these two countries.

Policy effectiveness

1) *Develop a transition strategy – not an exit strategy – that focuses more effectively on sustainability.*

As a first step, the governments of the Netherlands and Bangladesh should explicitly recognise that the era of bilaterally funded water management projects is coming to a close. Over several decades, those projects have achieved much and have shown many shortcomings, some of them structural and unresolved. The two governments should therefore develop a transition strategy – not an exit strategy – that focuses on optimising the learning from those decades of project experience, and especially from the projects that will be closed over the coming years. That strategy should also focus better than projects traditionally have on sustainability, which means local institutional maintenance as well as technical maintenance.

2) *Reinforce Dutch training and knowledge development support to the Bangladesh water management sector.*

In consultation with the responsible agencies, the MFA should rebuild the Netherlands' water management training and knowledge development support to Bangladesh, possibly through new collaborative programmes for in-country presence and training by Dutch institutions in combination with opportunities for study tours and high-level knowledge exchange and consultations between the two countries. The value of this 'soft power' approach to relations with Bangladesh should not be underestimated.

3) *Support a three-year transitional programme to build on the initial BDP 2100 achievements.*

Priority should be given to further Dutch support to follow up on the frameworks, concepts and priorities that the initial BDP outputs have developed, through a transitional programme of a further three years that clarifies and confirms the institutional arrangements for detailed planning, resourcing and management of adaptive delta management actions.

4) *Explore the political will to transform the BWDB. If it is there, support it. If it is lacking, recognise that the impact of the huge Dutch contribution to water management in Bangladesh will be limited.*

The Netherlands faces a stark choice as it prepares to move out of conventional development assistance into a new mode of relations with Bangladesh. The sustainability of much of what was achieved in water management during the review period, and over decades before that, is far from assured. This is because, despite Dutch assistance,

Bangladesh still lacks the good institutional governance and competent institutional structures, from Dhaka to field level, that sustainable water management requires. Instead, the build-neglect-repair cycle continued through the review period. The Netherlands could now accept that the institutional prerequisites have not been put in place, and that much of its investment will therefore have limited long-term value.

Instead, building on a decision to carry the BDP process further forward (as recommended above) the Netherlands should undertake an intensive and realistic appraisal of the institutional development possibilities, and of what support it can give in this regard. Over and above any decisions on the BDP proposals for a Delta Commission and a Delta Fund, the Netherlands should consider how it can contribute to reconstituting the BWDB with transformative and proactive leadership, more efficient and effective institutional structure, appropriate performance indicators and targets, and systems for monitoring and ensuring achievement of its goals. The revised and revived BWDB would need to be provided with adequate recurrent funding and efficiently linked to local level water management structures. The GOB, the Netherlands and potentially other donors should develop a funded plan to achieve this transformation. This is not a simple recommendation, and it depends first and foremost on the GOB's political will to act. But if it is not successfully implemented, much of the huge Dutch contribution to water management in Bangladesh will be lost in the medium to long term.

Policy efficiency

5) Review, rationalise and simplify modalities, funds, instruments and programming.

In consultation with the EKN, the responsible authorities in The Hague should review and rationalise the Netherlands' suite of modalities, funds and instruments for support to water management in Bangladesh, producing a simplified statement and institutional structure that will enhance relevance, co-ordination, efficiency and effectiveness. One of the results should be a shift by the EKN from its Multi-Annual Strategic Plan format, which plans only what the MFA will do, to a country plan that integrates what all the participating Netherlands ministries and agencies will do in a coherent programme that the EKN will co-ordinate and support.

6) Reappraise how and why the Dutch water sector can and will engage with Bangladesh.

Part of the recommended review and reformatting of Dutch support should be based on a realistic reappraisal of how and why the Dutch water sector can and will engage with Bangladesh. This should recognise that the commercial opportunities are limited, but also recognise the value that appropriately structured Dutch technical expertise can still add, notably in the areas proposed in recommendations 2-4 above.

1

Introduction

1.1 Policy review of Dutch aid policy for improved water management, 2006-2016

The Policy and Operations Evaluation Department (IOB) of the Netherlands Ministry of Foreign Affairs (MFA) is undertaking a review of Dutch aid policy for improved water management, 2006-2016.[4] This will complement an earlier policy review of the Dutch contribution to drinking water and sanitation programmes in developing countries (IOB, 2012). The evaluation team has already undertaken extensive research on the global portfolio of Netherlands support for water management over the ten-year review period, and its report is due for completion in mid 2017. Its overall terms of reference (ToR) identify three broad policy objectives, which

> *'are the core of the Dutch water management for development policy between 2006 and 2015. They are therefore the main focus of attention in this study:*
>
> - *water productivity: improved water management for increased productivity in agriculture;*
> - *developing and implementing water management plans at national or sub-national level;*
> - *improving transboundary water management [TWM] in watershed areas.'* (IOB, 2016, p. 7).

The ToR for the policy evaluation were structured in terms of these three objectives.

Improved provision of water for agriculture was a long-standing component of Dutch development co-operation. The concept of **water productivity**, focused on more efficient use of water in agriculture, gained more prominence in Dutch water management policy in the latter part of the review period, notably after the 2012 policy letter to Parliament, which made 'efficient water management, particularly in agriculture' one of its three themes (MFA, 2012, p. 7). In the case of Bangladesh, twin challenges of excess and insufficient water had to be addressed: flooding and drainage issues were complemented by the need to supply more fresh water to crops at some seasons in some locations (section 2 below). In the course of the evaluation, this component of the global Dutch contribution to improved water management has been categorised as **water management in agriculture** (WMag) and divided into two sub-categories: **agricultural development** (i.e. WMag with a broader focus than only water productivity) and **water productivity** (i.e. WMag with a specific focus on water productivity in agriculture).

While policy statements referred repeatedly to **water management plans**, this represented a broad commitment to effective water management – expressed in the 2012 policy letter, for example, as 'improved watershed management and safe deltas' (MFA, 2012, p. 8).

[4] The study was originally designed to cover ten years, 2006-2015. Later, it was decided to include 2016. At the time of the Bangladesh mission, the review period had not yet been extended. This report presents data and analysis for the 11-year period to December 2016.

It meant enhancing water security[5] and its component objective of water safety (particularly important in vulnerable delta countries like Bangladesh). It meant working with partner countries to implement the principles of integrated water resource management (IWRM), with their multiple social, gender, governance, economic and environmental dimensions. Enhanced water management and better water security were intended as a foundation for more resilient and sustainable livelihoods, often but not always based on enhanced agricultural production. In the course of the evaluation, this area of work has been categorised as **(sub) national water management** ((S)NWM, subdivided into (S)NWM planning and (S)NWM implementation, with the latter further divided into four sub-categories: (river) basin management; coastal development; and disaster management.

These first two themes overlap in various ways. Optimum water productivity cannot be achieved unless effective water management is planned and practised across the hydrological systems within which agriculture takes place. Water management efforts in Bangladesh have had enhanced crop production and agrarian livelihoods as one of their objectives. The evaluation distinguishes the two themes in order to reflect the separate, additional emphasis that Dutch policy began to place on water productivity during the review period.

Throughout the review period, Netherlands policy also recognised the **transboundary** nature of many water management challenges. International boundaries often divide catchments. This was therefore a third policy objective, and is now a third thematic area for this evaluation.

Many of the activities reviewed in this global study do not fit neatly into one of the categories outlined above, and some are explicitly focused on one or more of the cross-cutting policy themes to which Dutch development co-operation policy was committed during the review period, such as gender and climate change adaptation. These are categorised as **cross-cutting policy themes** (**CCPT**): activities with a primary focus on climate change adaptation and mitigation, environment, gender and good governance. Bangladesh received support in the latter two cross-cutting aspects. Other activities were undertaken **across water management themes** (**AWM**), in fields such as capacity development, awareness raising, research and policy dialogue. For centrally funded activities, the review subdivided the AWM category into Global Water Partnership (GWP) activities; activities of knowledge institutions; contributions to multi-donor trust funds; activities by international NGOs; and activities to promote the engagement of the Dutch water sector.

Dutch water management support to developing countries was mainly channelled through the delegated budgets allocated by the MFA to embassies for their management. However, significant amounts were increasingly devoted to programmes that were administered centrally, by the departments responsible for environmental and water issues (ministerial

[5] Defined as 'the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability' (UN Water, 2013: 1).

structure and departmental titles and responsibilities varied over the review period). The overall ToR summarise the principal policy trends over the 11-year review period, and how these were reflected in the nature of the work supported. Two related features of policy development have been an increasing emphasis on private sector engagement (as the concept of 'aid and trade' gained prominence in Netherlands approaches to countries like Bangladesh (section 3.1.1 below)), alongside ongoing inputs by non-governmental organisations (NGOs) and knowledge institutions; and an increase in the number of delivery channels, instruments, mechanisms and agencies. It is therefore necessary for the evaluation to assess not only work done by the MFA and its embassies, but also that implemented through programmes such as the Sustainable Water Fund (FDW, funded from the Official Development Assistance (ODA) budget[6] but not used in Bangladesh) and Partners for Water (PvW, funded from a non-ODA budget)[6]; and to understand the roles and performance of the Netherlands Enterprise Agency (RVO) and the Ministry for Infrastructure and Environment, relative to those of the MFA. It must also consider the relationship between Dutch and other inputs in various activities that were co-financed with development banks like the Asian Development Bank (ADB) and implemented by multilateral agencies like the United Nations Food and Agriculture Organisation (FAO) and the International Fund for Agricultural Development (IFAD).

The overall ToR for the evaluation explain that Bangladesh, Indonesia and Mozambique were among the largest recipients of delegated funding through the MFA for water management activities over the review period. The ToR propose special studies to evaluate the results of the water management policy cycle in these three countries, focusing on effectiveness and efficiency criteria. Mali was subsequently added as a fourth country case study. Each of these studies will be a stand-alone review that can be read and used separately, but will also form an input to the overall policy evaluation.

1.2 Bangladesh case study

The overall ToR state that the purpose of the evaluation 'is to contribute to the accounting for the Water for Development policy as well as to learning, by description and analysis of policy implementation and results and assessment of its effectiveness and efficiency and by deriving possible issues, lessons and recommendations for future policy' (IOB, 2016, p. 4).

As part of the overall evaluation, this Bangladesh country case study shares the purpose set out above, with its accountability and learning functions. The latter function is particularly important. As an evaluation of activities up to the end of 2016, the study will, strictly speaking, take a historical perspective. At the same time, its main value will be in establishing findings and proposing conclusions that can be debated and used in the ongoing implementation of the Netherlands – Bangladesh water management portfolio. Although an independent and neutral exercise (section 1.3), the study is intended to make a

[6] See footnote 9.

constructive contribution to enhancing Netherlands support to water management in Bangladesh.

The scope of this Bangladesh country case study reflects the scope of the overall evaluation, covering 2006-2016. As the overall ToR indicate, the focus is on Netherlands official development assistance (ODA) funding to water management activities in the country through country programmes and centrally funded activities of multilateral organisations, knowledge institutions, NGOs and public private partnerships (PPPs) – as well as other activities with a significant water management focus or component funded outside the MFA Foreign Aid and Trade policy, Article 2 (IOB, 2016, p. 16; see also MFA, 2013). Again reflecting the approach of the overall evaluation, the case study concentrates on larger-scale activities, mainly those funded through the delegated budget of the Netherlands Embassy (EKN). However, careful attention is also given to centrally-administered activities and to those delegated projects with smaller budgets, as well as work done in Bangladesh through PvW; FDW did not support any activities in the country.

1.3 Approach and methods

1.3.1 Terms of reference

The ToR for this country study included an initial description of the water management activities supported by the Netherlands in Bangladesh during the review period, together with data on project budgets, duration etc. Effectively, the ToR served as an inception report for the study, presenting material that this country study report discusses in more detail. It is therefore not useful to include the full country study ToR in an annex, as is the normal practice for such reports. Instead, Annex 1 presents relevant extracts from the ToR.

1.3.2 Evaluation questions and matrix

The overall evaluation to which this country case study contributes seeks to answer 24 evaluation questions (EQs) posed by its ToR. Those EQs combine factual enquiry with the standard evaluation criteria of effectiveness and efficiency. Impact is not addressed. The last two EQs ask about policy options. A summary of the overall evaluation's EQs follows:

- Five EQs about the **policy cycle** ask about the rationale, context, institutional setting, policy mechanisms, expenditures, monitoring and evaluation of activities in support of water resource management over the review period.
- A series of EQs about **effectiveness** follows.
  - Three EQs on **water productivity** ask whether MFA-supported initiatives enhanced the efficiency of agricultural water use, as well as the enabling environment and farmer capacity; and whether farmers thus supported pay for the services of water user associations (WUAs).

  - Four EQs ask about MFA support for approved **water management plans**; whether such support promoted IWRM principles and enhanced the technical and institutional environment; and whether these plans were resourced and implemented.
  - Three EQs ask whether MFA support enhanced **transboundary water management** through the necessary formal arrangements, strengthening the technical and institutional environment; and whether riparian states budgeted, implemented and sustained TWM agreements and systems.
  - Three EQs about **crosscutting issues** ask whether water resource management support incorporated the priority crosscutting themes in Dutch development co-operation policy; whether water resource management was enhanced while improving water management benefits for lower income groups and women beneficiaries; and whether programmes jointly achieved water management benefits and market benefits for the Dutch private sector.
- Four EQs about **efficiency** span issues of organisational efficiency; operational and technical quality; leveraging of commitment and resources from other donors and agencies; and empirical analysis of costs and benefits.
- Finally, in consultation with other Government of the Netherlands (GON) agencies, IOB was asked to pose two EQs about **policy options**: ways to increase efficiency and effectiveness and reduce overall budgets in this field.

In preparing the Bangladesh study, the evaluation team reviewed this overall set of questions and elaborated them to generate 35 EQs that it included in the ToR for the study. It developed an evaluation matrix (shown below at Annex 2), setting out the 35 EQs and explaining how the evaluation team proposed to answer them. The Bangladesh EQs are structured and grouped in the same way as those for the overall evaluation, but go into more detail on some points. They include questions about the accuracy of assumptions made in the inferred theory of change (ToC) for the overall programme of support to improved water management (see below).

- The EQs about the **policy cycle** include the extent to which evolving Dutch water management policy was reflected in engagements with Bangladesh, and whether an appropriate balance was achieved between water security and safety initiatives.
- **Effectiveness**
  - Six EQs about **water productivity** go into more detail about the enabling environment and management regime that Dutch support may have helped to develop, about the capacity, skills and land access of individual farmers and about the accuracy of ToC assumptions.
  - A further six EQs span a slightly revised theme of **water management planning and implementation**. In addition to the points covered by the overall evaluation ToR's EQs, they go into more detail about whether plans prepared with Dutch support have been resourced and implemented; whether water safety and water security objectives are being achieved; and whether ToC assumptions were accurate.
  - Similarly, the five EQs on **transboundary water management** expand on the overall evaluation ToR by asking about the attainment of water safety and security objectives and the realism of ToC assumptions about TWM agreements and benefits.

  - The EQs about **crosscutting issues** are broadly the same as those posed by the ToR for the overall evaluation.
- **Efficiency EQs** for Bangladesh cover the same points as those for the overall evaluation, but go into slightly more detail and end by asking whether the ToC made realistic assumptions about efficiency. In practice, it proved impossible within the scope of this study to obtain empirical data for a quantitative analysis of costs and benefits.
- Questions about **policy options** replicate those for the overall evaluation, with a note committing the country study to identify ideas that might be taken up in the overall discussions.

Once approved, this matrix constituted the backbone for the country case study report. Against the background of the country context summarised in chapter 2 below, the findings in chapter 3 seek to answer the questions, which are quoted at the start of the sections that address them. The matrix shows what indicators the evaluation team expected to use in answering each EQ; the mode of analysis that would be applied in the planned mixed-methods approach (see below); the main sources of information, and how the data would be collected. Given the broad thematic and temporal scope of the study, much of the analysis was expected to be qualitative, based on project reporting and evaluations as well as the professional judgement of informants.

1.3.3 Theory of change

As the relevant section of the ToR (reproduced at Annex 1) explains, the main purpose of referring to a ToC is to identify and interrogate the implicit assumptions underlying the aggregate logic chain of Netherlands aid policy for improved water management, as this was applied in Bangladesh over the review period. The detailed findings presented in chapter 3 are used as the basis for a commentary on the accuracy of these assumptions within the presentation of overall findings in chapter 4. This is an aggregate commentary on the quality of design, which is directly relevant to assessment of the policy that (another assumption!) drove the design.

The ToC is thus used mainly as a tool to help clarify the study's findings about Dutch policy and interventions. An alternative, broader ToC would look at all factors and processes in the Bangladesh water management sector, and arguably enhance understanding of the relevance and value of Netherlands support within that sector and its environmental, economic, social and institutional frameworks. This study sticks to the narrower purpose of ToC analysis, which focuses on a specific intended intervention – or, in this case, the specific package of interventions represented by Dutch aid policy to improved water management in Bangladesh over the review period. Spanning many interventions over 11 years, this is an aggregate, generic, schematic representation of design logic. Individual project design did not present ToCs. Composite programme design (the EKN's multi-annual strategic plans MASPs) did not do so either. At the generic level, the diagram in Figure 1.1 offers an inferred overview of the process of change that Netherlands policy on support to water management aimed to support. Having been reconstructed in this way, the ToC's main analytical

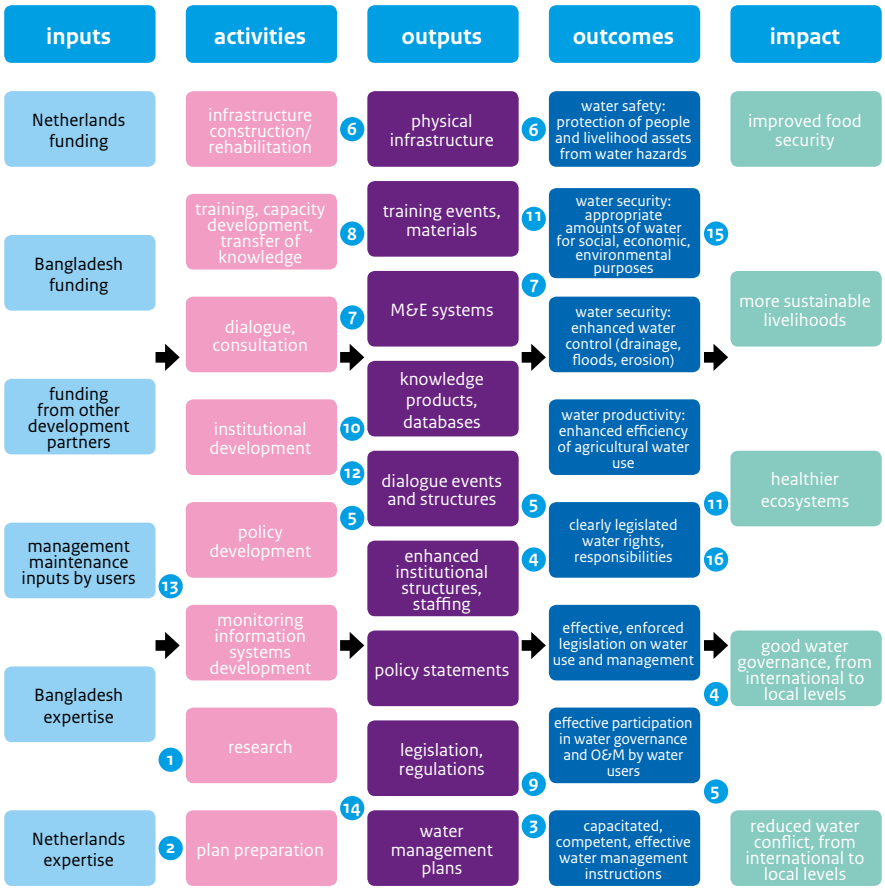
advantage does not lie in detailed exposition of the various inputs, outputs, outcomes etc. It lies in a discussion – again, schematic and generalised – of the main assumptions that underlay the design logic over the period.

The assumptions identified within the ToC are shown below. They are shown on the ToC diagram as small numbered circles. The positioning of these assumptions in the ToC is schematic and simplified; in some cases, the assumption pervades the entire logic chain, and in others it can be placed at several positions between inputs and impact. Some of the assumptions are repeated on the diagram to indicate particular places in the logic chain where they are important, but in order to keep the diagram readable this cannot be done exhaustively.

1) A prominent assumption underlying Netherlands water management programming in Bangladesh is that Dutch expertise can add value and fill gaps in locally available knowledge and expertise.
2) A related assumption is that Dutch and Bangladeshi expertise (along with other external expertise that may be available) are complementary and synergistic. Ideally, the whole should be more than the sum of its parts.
3) The ToC assumes that plans lead to meaningful, effective action. In many contexts worldwide, this assumption is often unrealistic. Planning sometimes becomes a substitute for action; often planning itself is unrealistic, particularly about institutional capacity to implement the plans that are generated.
4) Linked to this is the assumption that it is socially and institutionally feasible, through broadly understood and accepted mandates for the various structures and agencies, to achieve significant improvements in the quality (including the transparency) of Bangladeshi water management institutions. A related assumption is sustainable improvements in water management depend on the participation of government agencies, and that a strategy that does not include government at all is unviable.
5) Another pervasive assumption is that there is political will at the various necessary levels for Netherlands-supported policy and institutional initiatives to be converted into meaningful action.
6) From the technical perspective, the ToC assumes that the paradigms and approaches for water management that the Netherlands promotes and supports in Bangladesh are in fact relevant and appropriate.
7) The consequent assumption is that the techniques used in Netherlands-supported water management interventions are feasible, practical and affordable in Bangladesh conditions.
8) In some parts of the portfolio, and under increasing pressure from budget cuts to the bilateral programme, the EKN assumed that significant results could be achieved through piloting and partnering arrangements, through which the Netherlands' direct input would be relatively modest, but would be complemented by other resourcing to achieve larger-scale and/or post-pilot implementation. This was envisaged, for example, as a stronger emphasis on river management was proposed in the 2010-2011 MASP (EKN, 2010, p. 13).

9) For TWM, an obvious assumption was that regional co-operation was politically and institutionally feasible.
10) As the policy emphasis on Dutch private sector engagement and aid and trade modalities grew (section 3.1.1 below), the assumption for Bangladesh was that such engagement was relevant and could be effective for achieving the objectives of water management interventions.
11) As the concepts of 'working with nature' became increasingly prominent in Netherlands water management policy, it was assumed in the Bangladesh logic chain that ecological approaches and targets could be effectively integrated into the strategies and objectives of the interventions.
12) The review period saw substantial growth in the number of instruments, facilities and mechanisms deployed in an increasingly interministerial Netherlands water management policy and strategy. As applied in Bangladesh, this required the assumption that this suite of methods and tools were relevant, complementary, effective and efficient.
13) The policy emphasis on participatory water management leads to the implicit ToC assumption that water users do indeed contribute significantly to the management and maintenance of water infrastructure.
14) All development efforts in Bangladesh must assume that natural disasters during their implementation period will not significantly affect their progress and performance.
15) Residents of many vulnerable areas of Bangladesh (mainly, but not only, the coastal zones) face high levels of environmental risk: primarily threats to water safety, now exacerbated by climate change. High levels of subsidy are needed to assure a reasonable level of water safety in those areas. Like the Netherlands, Bangladesh is an expensive place to build and secure a nation. The assumption is that the trade-offs between the levels of risk and of subsidy are acceptable – or unavoidable. This assumption is not clearly presented, analysed or justified in the literature or the project planning on water management in Bangladesh. It is arguably the most fundamental assumption of all.
16) In a different sphere, but fundamental to the success of any common property resource management venture – such as community water management in Bangladesh – it is assumed that the interests of the poor and the better off around water resources can be reconciled so that all economic groups in rural society can work together.

Figure 1.1 *Bangladesh water management policy: implicit theory of change*



Assumptions 1-14 above were included in the ToR for the country study. Assumptions 15 and 16 became clearer to the team during their work in Bangladesh, and have been added to the list and the diagram above.

Covering a complex, extended set of interventions, this single ToC diagram only offers a summary presentation of design over the ten-year review period. Thus, for example, activities like dialogue, consultation, institutional development and policy development are expected to take place at multiple levels, from local water user groups to international transboundary negotiations between government authorities. Outputs and outcomes, too, may be at local, catchment, national or international scale. The arrows representing causal links from left to right across the logic chain are schematic only.

1.3.4 Approach and methods

A key principle in this policy evaluation overall, and specifically in this country study, is not to attempt an evaluation of each project in the portfolio under review. While the study bases its findings on the experience of the many projects and interventions funded by the Netherlands over the ten-year period, and makes frequent reference to the mid-term reviews (MTRs) and evaluations of those activities, it cannot and should not attempt an analysis of each individual project.

The country study has been guided by five other general principles, discussed in more detail in the extract from the ToR at Annex 1:

- independence: a neutral and unbiased approach;
- adherence to high standards of evaluation ethics;
- viewing all aspects of the subject matter through a gender lens;
- maximum effort, within the time constraints of a short country mission, to seek the views of project participants and beneficiaries;
- triangulation, in order to cross-check findings. Not surprisingly, informants gave divergent opinions on some issues. Setting these (and in some cases relevant empirical information) side by side through the triangulation process helped the evaluation team to determine whether all the various arguments were credible; whether some were better substantiated than others, and what the implications of the divergence were for answering the evaluation questions.

As explained in the ToR (Annex 1), a combination of methods was used for the country study:

- intensive use of quantitative data, from MFA and other databases, on the portfolio of activities under review;
- detailed review of the documentation on these activities, during desk work by the evaluation team before the visit to Bangladesh;
- interviews and focus group discussions in Bangladesh and the Netherlands with a wide range of informants, participant and beneficiaries (listed at Annex 5). Informants were

selected in consultation with stakeholders in Bangladesh and elsewhere who are knowledgeable about the country and the sector, and included land and water users in the limited number of communities that it was possible to visit during the country study mission. While the coverage of informants could certainly have been extended if more time and resources had been available, the evaluation team is confident that a sufficient spectrum of opinions, expertise and interventions was included – although it was understandably easier to find informants on current and recent activities than on those under way at the start of the review period. All interviewees were assured of confidentiality. Although much of this report is based on the (duly triangulated) information and views they provided, none of this material is attributed to specific informants;

- key informants with access to the internet were asked to respond to an online survey whose questions were based on those set out in the evaluation matrix. (The matrix does not refer to this survey because it was decided to undertake it after the matrix had been included in the ToR.) Survey responses were used as a supplementary source of information and opinions: a means of enriching and triangulating findings generated from other sources. They have been used to illustrate the discussion in chapter 3. The number of respondents was small. Not all completed the survey in full. Data from the survey can therefore not be used as an authoritative or central source for this study; but the responses do provide useful illustrations of some of the findings.
- The overall ToR for this policy evaluation state that a number of in-depth studies form part of the exercise. Two of these concern water management activities in Bangladesh: the Blue Gold and Bangladesh Delta Plan 2100 (BDP) projects. IOB commissioned an impact study of Blue Gold, as part of a larger IOB impact evaluation of food security interventions. This country study has been able to refer to the draft findings of the Blue Gold study. It has also paid special attention to the BDP process.

1.4 Country study activities

The main activities of the evaluation team[7] for this country study were:

- collection of data and documentation about the project portfolio across all channels and instruments;
- preparation of the country study ToR;
- evaluation mission to Bangladesh (16 October - 4 November 2016), comprising a series of meetings with stakeholders in Dhaka and visits to the project areas of Blue Gold and the South West Area Integrated Water Resources Planning and Management Project (SWAIWRMP);
- a confidential online survey, to which 22 key informants associated with past and present projects were invited to respond after the evaluation mission (Annex 3). Seventeen (77%) responded. These were not impartial informants, but the information and opinions they provided through the online survey were valuable;
- preparation of this country report.

[7] Stephen Turner (consultant, lead evaluator for Bangladesh country study); Pim de Beer (evaluator, IOB: responsible for desk research in The Hague); Nityananda Chakravorty (consultant); Rita Tesselaar (senior evaluator, IOB: responsible for the overall policy evaluation).

2

Context

2.1 Bangladesh: economy, society and environment

Bangladesh separated from Pakistan as an independent state in 1971, and the Netherlands quickly established diplomatic and development relations with it. Forty-five years later, the two countries have a strong tradition of co-operation on water management issues, partly inspired by the importance of delta and flood management for them both. The Early Implementation Projects that the Netherlands began to support in 1975 were a preliminary initiative in this regard, soon followed by the launch of a Delta Development Project in 1976 and Land Reclamation Projects in 1977 (NWP, nd[8], p. 4). In more recent times the two countries have shared a growing commitment to the principles of IWRM and, later still, an emphasis on participatory approaches to water management.

Through these four decades, Bangladesh has been one of the major platforms on which the Netherlands has built its reputation for global expertise in water management. While continuing to face multiple social, economic and environmental problems (it had a population density of 1,237/km² in 2015, compared with 503/km² in the Netherlands (World Bank, 2016a)), it now aims to be classified as a middle-income country by 2021. The latest MASP of the EKN anticipates a period of transition in relations between the two nations, with development co-operation potentially phased out by 2025 (EKN, 2013, p. 6). Parallel trends in Dutch policy, from conventional ODA to more trade-based relations, are highly pertinent in Bangladesh (section 3.1.1 below). For the time being, however, using Dutch private sector engagement to promote the achievement of poverty alleviation and sustainable development objectives is at least as important from the MFA's perspective as the promotion of Dutch commercial interests.

2.2 Water management challenges in Bangladesh

The context for achieving water security is challenging in Bangladesh. Frequent excess of water is one of the main factors in much of the population's poverty, through annual flooding along the river systems (inundating up to 60% of the country), extreme weather events, and the waterlogging of agricultural land that is inadequately drained; while food needs are such that irrigated crops must also be produced at some seasons, with a heavy dependence on groundwater. As in all densely populated coastal regions of the world (including the Netherlands), the impacts of climate change and rising sea levels pose new water safety threats and water management challenges – although, in Bangladesh, the impact of frequent cyclones and associated storm surges remains a more immediate problem. Accurate and detailed geographic information systems are needed to provide real-time data on the behaviour of the country's complex river, delta, coastal and groundwater resources.

Like the Netherlands, Bangladesh must contend with the constant and subtle dynamics of its delta systems, with rivers shifting, banks eroding and channels filling with sediment

[8] nd: not dated.

– often complicating the drainage of neighbouring farm land. Integrated coastal zone management (ICZM) is an essential paradigm to secure the livelihoods of the large, vulnerable poor populations on the southern fringes of Bangladesh. A little inland, drainage systems require constant maintenance, which is a major reason why the survival of the country's agricultural economy – and the people's food security – depend on group action by land and water users to ensure that the work is done. The water management challenge is thus institutional and social as much as it is technical. Indeed, in Bangladesh as elsewhere, the technical solutions are comparatively easy to identify. Much of the water management effort must be devoted to building institutional structure and capacity on a sustainable basis, from national bodies such as the Bangladesh Water Development Board (BWDB) to local Water Management Groups (WMGs) responsible for ensuring that water and land are sustainably used and managed in polders and chars (newly accreted land).

Despite decades of collaboration in which significant progress has undeniably been achieved in enhancing water management approaches and outcomes, the EKN's current MASP states that

> *'the policy framework for the water resources management sector is based mainly on the National Water Policy of 1999. The Policy is considered to be reasonably well developed, but lacks effective implementation. The main constraint is the functioning of the government in general and the public water institutions in particular.'* (EKN, 2013, p. 9).

All modes of institutional development in Bangladesh are constrained by the complex and confrontational political environment, a labyrinthine and inefficient bureaucracy, and standards of governance that are often criticised as inadequate. These are all important factors for the country case study to assess as it reviews the performance of Netherlands-supported initiatives to improve water productivity and, especially, to build effective water management plans and associated implementation programmes.

Like the Netherlands, Bangladesh must manipulate the additional complications of regional politics as it engages in TWM initiatives. The major river systems of Bangladesh rise in other countries, with India the most significant partner in any TWM efforts. Although relations between the two countries are generally cordial, this has not always been true of their joint water management, as evidenced by their failure to agree a water-sharing treaty for the Teesta River. Additional complexity arises from the fact that water resources are a state responsibility in India, rather than a federal one – so that in the Teesta case, for example, the Government of Bangladesh (GOB) must deal with the state government of West Bengal.

This brief outline has demonstrated the similarities between the water management challenges that the Netherlands and Bangladesh face. Both depend for their food and livelihood security, and their broader economic security, on achieving improved water productivity while managing the dynamics of complex water resource systems. Both therefore depend on strong institutions that can design and deliver feasible water management plans. Both depend, too, on adequate water management relations with other

riparian states. At the same time, there are plainly major environmental, technical, social, political and institutional differences between the two delta countries. This country case study must assess the extent to which Netherlands water management policy and programming have transcended those differences to achieve sustainable enhancements in Bangladesh water management.

2.3 Netherlands aid policy for improved water management

EQ 1: What was the rationale for Netherlands assistance to water management in Bangladesh?

Dutch policy evolved over the review period. It maintained a focus on water management planning and implementation for enhanced water security based on IWRM principles, at sub-national, national and transboundary levels; and, from 2011, an initial focus on efficient water use, particularly in agriculture. The 2012 policy letter of the Ministry of Foreign Affairs to Parliament provides the most elaborate statement of that policy (MFA, 2012). In that letter, the Ministry set out a two-pronged approach to institutional development and to infrastructural development – both emphasising support for the poorer members of society, with the themes of food security and adaptation to climate change integrated and a commitment to the cross-cutting themes of good governance and gender. It focused on three themes: (1) efficient water use, particularly in agriculture; (2) improved watershed management and safe deltas (reflecting the prominence of the delta concept in comparing Dutch experience and expertise with the water management challenges of some developing countries where deltas were also significant features in the landscape and the economy); and (3) access to safe drinking water and sanitation (outside the scope of this evaluation). It also noted the fact that water management challenges may be international in nature, because catchments and river systems may span two or more countries – often causing tensions that Dutch interventions might seek to mediate (MFA, 2012, pp. 11-12).

Two principles running throughout the review period in Dutch aid policy for improved water management are the importance of context specificity (see, for example, MFA, 2007, p. 11) and the necessity that interventions be demand driven (MFA, 2012, p. 5, p. 13). Both may be considered so obvious as to need little further emphasis here – but for a policy evaluation it is nevertheless important to assess the extent to which embassies were able to align policy emanating from The Hague with local realities and priorities. How well did Dutch global policy fit local circumstances and needs – in this case, in Bangladesh?

Reflecting a broader trend in Dutch public policy, the MFA policy letter emphasised the role of the Dutch water sector (businesses, knowledge institutions and NGOs) in delivering on these aid policy commitments. The main evaluation report explains that this was

complementary to the broader GON approach to international engagements in the water sector, climate change and investment, as set out in chapter 6 of the National Water Plan (MTPWWM, MHSPE and MANFQ, 2009, pp. 242-249). That plan recognised water as a Dutch 'top sector' and aimed to facilitate adaptation to climate change, contribute to the achievement of the Millennium Development Goals (MDGs) and create and exploit economic opportunities for the Netherlands. To help implement it, the Water Mondiaal programme was established. Water Mondiaal was described in the MFA's 2012 policy letter as 'an interdepartmental programme, implemented by the Ministry of Infrastructure and Environment with the participation of the Ministry of Economic Affairs, Agriculture and Innovation and the MFA, financed from the Integrated International Co-operation Group[9] and contributing to improved water management in five delta countries (Bangladesh, Egypt, Indonesia, Mozambique and Vietnam)[10], thereby building the profile of the Dutch water sector in those countries' (MFA, 2012, p. 14). While the National Water Plan and related initiatives were not the direct responsibility of the MFA and are therefore not the focus of this evaluation, this suite of policies and instruments across the Dutch government for engaging in water management in developing and transitional countries was certainly relevant to the country's aid policy for the sector. The evaluation, and this Bangladesh country study, therefore make due reference to these other programmes and activities.

[9] 'Since 1997 the Integrated International Co-operation Group (HGIS) has been a construction within the national budget, which bundles together the expenditures of different Ministries in the field of international policy … within HGIS a distinction is made between development co-operation expenditures that meet the criteria for ODA and other expenditures for international policy (non-ODA)' (GON, 2016). Technically, therefore, this evaluation and its country case studies must look beyond Netherlands aid (ODA) policy and funding.

[10] Colombia and Myanmar were added later.

3 Findings

3.1 The policy cycle

3.1.1 Rationale for Netherlands assistance to water management in Bangladesh

EQ 1: What was the rationale for Netherlands assistance to water management in Bangladesh?

The overall rationale for Netherlands assistance to water management in Bangladesh was supplied by Dutch global development co-operation policy, as well as evolving aid policy for improved water management (section 2.3 above), which reflected general policy developments such as the increasing attention to climate change and the growing emphasis on linking aid and trade objectives to benefit Netherlands interests as well as those of the poor in partner countries. In a 2013 policy statement, the MFA called for

> *'a new aid, trade and investment agenda. At international level, we are pursuing three important aims. First, to eradicate extreme poverty ('getting to zero') in a single generation; second, sustainable, inclusive growth all over the world; and third, success for Dutch companies abroad. In the field of aid and trade, we can identify three types of bilateral relationship, within which we will continue to focus mainly on our current partner countries (aid) and focus countries (trade).*
>
> ***Aid relationships.*** *Here, the focus is on countries that are unable to solve their poverty problems singlehandedly. This category includes conflict-affected and post-conflict countries, fragile states and countries with insufficient capacity to reduce poverty effectively without assistance.*
>
> ***Transitional relationships.*** *Here, the focus is mainly on low- and middle-income countries with burgeoning economies. In a transitional relationship, a combination of aid and trade can benefit both the developing country and the Netherlands.*
>
> ***Trade relationships.*** *Here, our main aim is to promote trade and investment, with activities that contribute to economic growth and employment in the Netherlands.'*
> (MFA, 2013, pp. 6-7).

At country level, the multi-annual strategic plans (MASPs) produced by the EKN provided a more detailed rationale for Dutch engagement in Bangladesh. There were four during the period under review, usually overlapping.

The **MASP for 2008-2011** rooted its presentation of challenges and opportunities in a review of the fluid political situation, which argued that development partners (DPs) should undertake joint strategies to help consolidate the fragile institutional progress that had been made (EKN, 2008, p. 1). The Dutch strategy focused on improving the living conditions of the poor through support for water management, education and health, with an emphasis also on the

cross-cutting themes of good governance (including private sector development) and gender. Strategy for support to water management was proposed against the background of the 2007 cyclone Sidr, which caused 3,000 deaths. The EKN proposed that the Netherlands should 'assume the leading role [among donors] in the water management sector', because of 'the overriding importance of water management for Bangladesh and its population, especially in view of the challenges climate change poses'; the similarity between the water management challenges facing the Netherlands and Bangladesh; 'our unique value: the renowned Netherlands expertise in water issues and our successful Dutch model of participatory approach' and the 30-year history of Dutch support for the sector in Bangladesh (EKN, 2008, pp. 6-7). While acknowledging the central importance of water management for the people of Bangladesh, this rationale thus also gave heavy emphasis to building on Dutch success and maintaining a strong Dutch profile. The MASP also said that 'Since our added value in water clearly lies in integrated management of water resources rather than in drinking water and sanitation we propose to terminate our activities in this sub-sector' (EKN, 2008, p. 7). It linked water management interventions to three strategic goals 'improved rural livelihoods'; the water safety objective of a population 'better prepared for, and protected against impacts of river floods, erosion and climate change; long term environmental and productive functions of rivers safeguarded'; and the more specific goal of better livelihood development options for poor people living in the coastal zone (EKN, 2008, pp. 13-15).

The **MASP for 2010-2011** was prepared after a 'year long decision-making paralysis' following a review of EKN performance and several senior staff changes, against a background of 'deep budget cuts': 'we approach a crossroads', with a portfolio that was 'still scattered over a wide variety of activities, partially as a result of past political instructions' (EKN, 2010, pp. 8-9). The MASP stated its overall objective as 'supporting Bangladesh to improve transparency and strengthen accountability to achieve the Millennium Development Goals … and to graduate to a middle-income country' (EKN, 2010). Against a background of striking economic progress, continuing governance problems and 'a notoriously ineffective bureaucracy', the MASP repeated Dutch commitment to good governance as the foundation for development that would benefit the poor. In addition to governance and civic objectives (including women's rights), it aimed to stimulate private sector development and 'increase[e] sector performance for greater service delivery impact in water management, education, health and water and sanitation' (EKN, 2010, p. 3). The MASP noted that the water sector 'has proven reform and change resistant' and that the Netherlands would therefore 'identify new partnerships, both in and outside the public sector' (EKN, 2010, p. 3). It was able to quote the visiting Minister for Development Co-operation's rationale: 'the need for continued support to the water sector because of its vital importance for development of the (rural) poor and the Dutch comparative advantage in water management' (EKN, 2010, p. 12).

The **MASP for 2012-2015** argued that 'to support sustainable economic growth, effective water resources management is essential. Frequent flooding in Bangladesh's cities and their heavily polluted surface water resources further underscores the need for measures that promote sustainability. Water management for adequate food production is absolutely vital for Bangladesh … In the coastal area with its tidal movements, water management in and around the low lying land must be drastically improved to develop the 'productive'

potential of this area which is home to Bangladesh's extremely poor. In these areas, the percentage of the hard-core poor is far above average. Bangladesh's 380 rivers play a very important role in the life of nearly every Bangladeshi' (EKN, nd, p. 10). Again, this MASP thus focused on the central significance of water management for Bangladesh, and the major need for improvements in the sector. Part of the rationale was, again, to serve Netherlands interests as well as those of the poor in Bangladesh: 'the renewed cooperation in the water sector between the Netherlands and Bangladesh, as part of the 'Water Mondiaal' Program, offers possibilities to further develop relationships at governmental and sectoral levels which will benefit stakeholders from both countries' (EKN, nd, p. 11). The MASP also noted the 'strong political signal' given by the decision of the Prime Minister of Bangladesh that a Bangladesh Delta Plan 2100 was required, and by the request for Dutch assistance in developing the plan (EKN, nd, p. 6).

Most recently, the **MASP for 2014-2017** gave its 'mission statement' as 'from productive aid to responsible trade' and noted that 'the Netherlands' development co-operation with Bangladesh helps to improve the living conditions of the poor'. Concern for the plight of the poor appeared as the core rationale for support to water management: 'climate change, population growth, urbanisation and their adverse effects on the quality of life for the poor and vulnerable population of Bangladesh will drive the Embassy's Water Programme over the next four years. The aim of the Programme is to contribute to a healthy living environment and wellbeing that supports economic growth in a country where it is anticipated there will be more extreme rainfall, higher sea water levels, increasing industrial pollution and further slum development' (EKN, 2013, p. 1). As previously, Dutch interests also formed part of the rationale. The MASP described the portfolio in Bangladesh as contributing to social and economic development 'and at the same time provid[ing] opportunities to use and showcase Dutch knowledge, expertise and technologies. Integrated programmes such as the formulation of the BDP 2100 and the Blue Gold programme, developed under the present MASP, provide platforms for water-based development models, policy dialogue, innovation, increased synergy with other thematic areas (esp. food security and business development but where relevant also SRHR) and for mainstreaming cross-cutting issues such as (water) governance, skills development, climate change adaptation and (environmental) sustainability' (EKN, 2013, p. 3). The overall objective, therefore, was 'to create a healthy living environment for sustainable economic development by improving water management related to coastal protection, rivers, polders and food production and by ensuring access to drinking water and sanitation facilities, through strengthening water sector institutions in partnership with their Dutch counterparts' (EKN, 2013, p. 11).

In aggregate, these extracts from the MASPs for the review period show a triple rationale for Dutch support to water management in Bangladesh. First, addressing the many weaknesses in the sector was a central strategy for improving the living standards of Bangladeshis. Secondly, the strong reputation and many achievements of the Netherlands in the sector were considered a good foundation for further contributions. Thirdly, as the review period went on, there was stronger emphasis on achieving benefits for Dutch economic interests through support to Bangladesh.

3.1.2 Modalities, instruments and mechanisms

EQ 4: What modalities, instruments and mechanisms did the Netherlands use in support to water management in Bangladesh?

The Netherlands used several modalities, instruments and mechanisms in its support to water management in Bangladesh. While some of these were not directly driven by the aid policy under review here, it is important to mention them all because aid policy implementation and performance were influenced by the existence and use of these other channels.

As in earlier decades, the main modality for water management policy implementation continued to be projects funded by the MFA through the EKN using budgets delegated from The Hague. These projects, detailed in section 3.1.3 below, took two forms: bilateral – managed by the embassy in consultation with, and partly resourced by, the GOB – and multilateral – managed by an international financial institution (IFI) such as the ADB, the International Fund for Agricultural Development (IFAD) or the World Bank (WB). Of the 30 activities listed in Table 3.1 – large and small – eight were budgeted to receive less then 50% of their funding from the Netherlands. These projects of multilateral and United Nations agencies to which the Netherlands made a budgetary contribution were all major interventions, which meant that 41% of the total Dutch budgetary commitment shown in Table 3.1 was for projects of multilateral and UN agencies funded through the Netherlands' bilateral channel[11] such as the Emergency Flood Damage Rehabilitation Project (EFDRP), SWAIWRMP and the Small-Scale Water Resources Sector Development Project (SSWRSDP) Phase II.

Netherlands contributions to multilateral organisations' projects took various forms. In some cases, such as the Char Development and Settlement Project (CDSP), an IFI began to fund the activity after some phases of solely Dutch external support. In others, the Netherlands was always a minority funder – as with the Water Management Improvement Project (WMIP, with the WB), the Flood and Riverbank Erosion Risk Management Investment Programme (FRERMIP, with the ADB) and SWAIWRMP (also with the ADB). In two of these co-financing cases (SSWRSDP II and CDSP IV), the Netherlands funded the technical assistance (TA) component. Given tender assessment procedures that generally weighted the technical score much more strongly than the price score – even when procurement followed the IFI's rules rather than MFA (European Union) procedures – this often gave Dutch consulting expertise a prominent role in such projects. Usually, active EKN engagement in the supervision of these co-financed projects also enabled Dutch policy to achieve some influence over their implementation.

In addition to this delegated funding, the MFA used central budgets in The Hague to support a number of global or multi-country activities that had links with water management in Bangladesh (see Table 3.2). Some of this funding was a Dutch contribution to programmes of international organisations or partnerships like the International Union for Conservation of Nature (IUCN) and the Global Water Partnership. Others were initiatives of Dutch organisations,

[11] Also known as 'multi-bi' projects.

such as the Urbanising Deltas of the World programme of the Netherlands Organisation for Scientific Research. Some of these, such as Urbanising Deltas and the Water Integrity Network that operates in association with Transparency International, have a clear profile in Bangladesh and are well known at the EKN. Others, such as central MFA funding for IUCN's Water and Nature Initiative and for the International Network for Capacity Development in Sustainable Water Management of the United Nations Development Programme (UNDP: CapNet) have made little impression at the EKN in Dhaka and show little linkage with the delegated programme. None of these centrally funded activities were reflected in the EKN's MASPs.

The Sustainable Water Fund (FDW), a public-private partnership initiative funded by the MFA and administered on its behalf by RVO, did not support any activities in Bangladesh during the review period.

Outside the direct responsibility of the MFA, other funding instruments linked to the Water Mondiaal initiative were available to support improved water management in Bangladesh. The Partners for Water Programme, administered by the Netherlands Enterprise Agency (RVO), offered funding through subsidies for initiatives by Dutch firms, research agencies, water authorities and NGOs – typically of several hundred thousand Euros. It also provided grants of a few tens of thousands of Euros for commissioned activities, such as exploratory missions to develop linkages between the Dutch water sector and counterparts in Bangladesh. The Facility for Infrastructure Development (ORIO), administered by RVO, was superseded in 2015 by the Development Related Infrastructure Investment Vehicle (DRIVE). ORIO funded one project in Bangladesh during the period under review: the identification phase of the Water Management Infrastructure project, Bhola District, co-financed with the GOB through the BWDB.

3.1.3 Water management interventions in Bangladesh

EQ 5: What were Netherlands expenditures on water management activities in Bangladesh, by year, by targeted geographic area (if applicable), by policy objective and by channel? What proportion of the expenditures was spent on contracts with Dutch water sector stakeholders?

Table 3.1 below shows the core of the portfolio under review: the series of Bangladesh water management activities that the Netherlands supported with delegated funding through the EKN. The total amount budgeted by the Netherlands for this delegated portfolio was EUR 201 million. Total Dutch expenditure on these activities over the period was EUR 132 million. The difference is partly because some of the most recent projects still have several years to run. In other cases, design and implementation issues discussed later in this report contributed to the underspend. Total expenditure per year ranged from EUR 10.7 million in 2008 to EUR 19.1 million in 2015.[12]

[12] Total expenditures in 2006 and 2007 are not considered here, as the review's database of activities excludes those showing expenditures only in those years. This is because they are assumed to have been guided by policy developed before the review period started.

It should be noted that Table 3.1 shows the individual activities as recorded in the MFA's Piramide database. It includes activities with budgets under EUR 1 million, which are not the main focus of this evaluation but which are included because they are sometimes pertinent to the overall analysis of policy. Some projects combine several activities: for example, the financial assistance and the technical assistance for CDSP III and for the Integrated Planning for Sustainable Water Management (IPSWAM) project were given separate activity numbers. The table shows those activities classified in Piramide under a 'water management' heading.

Some of these bilateral projects involved water management activities in many parts of the country. They included the SSWRSDP, implemented by the Local Government Engineering Department (LGED, in the Ministry of Local Government, Rural Development and Co-operatives) and WMIP (which was implemented in 43 districts, but from which the Netherlands withdrew funding in 2011). Much of the effort during the review period, however, was concentrated on the more vulnerable southern parts of Bangladesh. SWAIWRMP, IPSWAM and most recently Blue Gold worked in south-western and southern areas, and successive phases of CDSP focused on coastal areas in the south east. The 'integrated water management' project supported through UNDP (formally named Building Community Resilience through Integrated Water Management) split its efforts between a haor wetland area in the north east and south-eastern coastal areas. Netherlands support through the United Nations World Food Programme (WFP) project for Enhancing Resilience to Natural Disasters and the Effects of Climate Change in Bangladesh was restricted to three of the 42 upazilas (sub-districts) in which the project operated: all in southern coastal areas. Through FAO, the Netherlands funded a project for Enhancing Food Security Through Improved Crop Water Management Practices in the Southern Coastal Areas of Bangladesh. As its name implies, the Estuary Development Programme also focused on the southern areas, although the EKN decided in 2010 to terminate funding of this project due to administrative problems in the GOB and funding constraints in the GON.

Analysing the portfolio in terms of overall MFA policy objectives for support to water management is a complex challenge. As explained in section 1.1 above, this overall evaluation originally identified three broad policy objectives, which it has since refined. Table 3.1 below presents the delegated activities undertaken in Bangladesh during the review period, set out according to the revised and more detailed categories. A number of the projects combine local water management planning with measures to enhance the agricultural productivity of water (through drainage, irrigation or a combination of these); major efforts at associated local institutional development of water management organisations (WMOs)[13]; measures to promote GEEW; and sometimes broader rural and agrarian development initiatives.

[13] WMO is used in this report as a generic term for local level community water management bodies. These may be Water Management Co-operative Associations (WMCAs) or Water Management Groups (WMGs), or the Water Management Associations in which WMCAs and WMGs are commonly federated.

Table 3.1 Water management projects: delegated funding, 2006-2016					
No.	**Project Name**	**Start**	**End**	**Project budget**	**Expenditures 2006-2016**
Water management in agriculture					
	Agricultural development				
26	Small Scale Water Resources Sector Development Project Phase II (SSWRSDP II)	Jan 02	Jun 10	19,040,675	11,224,665
27	Small Scale Water Resources Sector Development Project Phase II (SSWRSDP II) Monitoring and Evaluation	Jan 02	Jun 10	140,829	66,299
18547	Emergency Disaster Damage Rehabilitation Project (EDDRP)	Nov 08	Jun 11	17,054,496	17,054,496
24007	Blue Gold, Programme for Integrated Sustainable Economic Development by Improving the Water and Productive Sectors in Selected Polders	Jan 13	Dec 19	62,670,000	23,870,250
Sub total				**98,906,000**	**52,215,710**
% of total				**49%**	**40%**
	Water productivity				
27948	South West Area Integrated Water Resources Planning and Management Project (SWAIWRPMP) Phase II	Nov 15	Jun 23	5,180,000	759,207
24634	Enhancing Food Security Through Improved Crop Water Management Practices in the Southern Coastal Areas of Bangladesh	Nov 12	Jun 15	2,209,500	2,209,500
25695	Satellite for Crops	Aug 13	Jul 16	160,153	160,153
Sub total				**7,549,653**	**3,128,860**
% of total				**4%**	**2%**
(Sub) national water management					
	(Sub) national water management planning				
13766	Twinning Arrangement Phase II	Jan 06	Dec 07	388,457	388,458
18078	Twinning Arrangement Phase III	Jan 08	Dec 09	450,163	450,162
38	Integrated Planning for Sustainable Water Management (IPSWAM) (TA)	Nov 03	Aug 12	6,870,123	3,856,721
39	Integrated Planning for Sustainable Water Management (IPSWAM) (FA)	Oct 05	Feb 11	3,045,744	3,045,744
1536	Integrated Planning for Sustainable Water Management (IPSWAM) Monitoring/Review	Jan 03	Dec 11	63,864	54,184
13546	South West Area Integrated Water Resources Planning and Management Project (SWAIWRPMP) Phase I	Feb 07	Jun 15	9,627,080	9,627,080

Table 3.1 Water management projects: delegated funding, 2006-2016					
No.	**Project Name**	**Start**	**End**	**Project budget**	**Expenditures 2006-2016**
90	Water Management Improvement Project	Nov 07	Jun 16	2,040,000	2,040,000
25545	Formulation of the Bangladesh Delta Plan 2100	Mar 14	Jun 17	8,782,253	7,664,850
Sub total				**31,267,684**	**27,127,199**
% of total				**16%**	**21%**
	(Sub) national water management implementation				
	(River) basin management				
Sub total				**-**	**-**
% of total				**-**	**-**
	Coastal development				
51	DHA PDO-ICZM: Integrated Coastal Resources Database	Feb 02	Dec 08	314,937	245,979
20854	Capacity building and knowledge transfer to MoFA on its claim on continental shelf (Support to MFA for preparation of UN Convention on the Law of the Sea claim: UN-CLOS)	Jan 10	Jun 11	147,705	147,706
12281	BRAC Char Development and Settlement Project Phase III (CDSP III)	Jul 05	Jun 10	1,457,118	1,277,355
12702	Char Development and Settlement Project Phase III (CDSP III) TA	Oct 05	Feb 11	2,685,341	2,285,342
12876	Char Development and Settlement Project Phase III (CDSP III) FA	Oct 05	Feb 11	8,164,682	8,164,683
57	Estuary Development Programme (EDP)	Aug 05	Nov 11	2,805,818	2,805,818
21607	Char Development and Settlement Project Phase IV (CDSP IV)	May 11	Jun 18	15,624,870	11,390,014
Sub total				**31,200,472**	**26,316,897**
% of total				**15%**	**20%**
	Disaster management				
26224	Enhancing Resilience to Natural Disasters and the Effects of Climate Change in Bangladesh	Jan 14	Dec 15	1,266,000	1,265,915
26397	Urban Dredging Project	Jun 13	Dec 16	5,425,581	2,554,302
24789	Building Community Resilience Through Integrated Water Management	Nov 12	Aug 17	5,747,985	5,693,054
26408	Flood and Riverbank Erosion Risk Management Investment Programme (FRERMIP)	Aug 14	Dec 19	12,871,161	7,375,080
Sub total				**25,310,727**	**16,888,351**
% of total				**13%**	**13%**

Table 3.1 Water management projects: delegated funding, 2006-2016					
No.	**Project Name**	**Start**	**End**	**Project budget**	**Expenditures 2006-2016**
Transboundary water management					
20387	Dialogue Trans-Boundary Water	Feb 10	Jul 14	5,163,557	5,060,017
Sub total				**5,163,557**	**5,060,017**
% of total				**3%**	**4%**
Cross-cutting policy themes					
	Climate				
Sub total				**-**	**-**
% of total				**-**	**-**
	Good governance				
Sub total				**-**	**-**
% of total				**-**	**-**
	Gender				
Sub total				**-**	**-**
% of total				**-**	**-**
	Environment				
Sub total				**-**	**-**
% of total				**-**	**-**
Across water management themes					
9525	Integrated Water Resource Management Support Fund	Nov 08	Feb 09	396,292	352,878
18736	Water Sector Support Fund	Dec 08	Dec 12	284,039	284,038
23732	Water Support Fund 2012-15	Feb 12	Dec 16	1,300,000	671,587
Sub total				**1,980,330**	**1,308,503**
% of total				**1%**	**1%**
Total			**EUR**	**201,378,423**	**132,045,537**

This diversity should be assessed in the context of the evolving water management challenges and responses in Bangladesh since the 1970s. Much of the early effort was a response to actual or potential water-related disasters and had a strong engineering and infrastructural component. Many projects have continued major infrastructural efforts: partly to reinforce water safety (as in the CDSP projects and FRERMIP) and partly to build on those foundations with smaller-scale water management structures that improve water security for agrarian livelihoods in the polders and other southern areas. As part of these decades of experience, there was a gradual recognition that infrastructure alone was not enough, and that institutional development for competent and sustained operation and maintenance (O&M) was essential. This was a major focus of IPSWAM, for example. Later still came the realisation – as in common property resource management worldwide – that effective management must be motivated by improved revenues from the managed resources. This led more recent Dutch-supported projects to put more emphasis on

agricultural extension and value chain development with water users whose water management infrastructure these projects were strengthening.

Spanning this diversity, and overlaid across the three main policy objectives outlined above, are the concepts of water safety and water security. The former is a prerequisite for the latter, and is fundamental to the wellbeing and the future of Bangladesh. The broader concept of water security includes water safety but addresses the many challenges of ensuring appropriate levels of water availability and quality for agriculture and all other human endeavours – as well as the social dimensions of equity in water access and use.

It is also important to consider the concept of planning as expressed in the portfolio – which links to the way the Dutch profile themselves as water management experts, especially in deltas. While planning is a necessary foundation for virtually any development effort, including local-level water management, it gained greater importance at meso level in southern Bangladesh as land and water resources were developed into polder systems and, in some areas, newly accreted land in the chars was made available for settlement and production. When water safety challenges threaten a whole nation, as has been the case in both Bangladesh and the Netherlands, larger-scale, longer-term planning becomes correspondingly more important. During the review period, the GON (not specifically the MFA) began to build a stronger and more self-interested water management profile around the concept of deltas, within which integrated planning of water and land resources was seen as a necessary skill with which the Netherlands could support selected 'delta countries'. Bangladesh was an obvious candidate for this support. By the end of the review period, the emergency water management planning of earlier decades had evolved into the concept of delta planning at the sub-national scale.

Table 3.1 shows that (sub) national water management planning received 16% of the total delegated budget allocation over the review period, while 28% of the total delegated budget was allocated to (S)NWM implementation. The largest part of the total budget, 49%, was allocated to the broad category of water management in agriculture, with a further 4% for more focused water productivity activities. The single transboundary water management project received 3% of the total budget, and the cross-cutting activities 1%. The reason for almost half the total delegated budget being allocated to broad water management in agriculture activities can be seen in the EUR 63 million budget provided for the Blue Gold project. This was more than three times bigger than any other delegated budget allocation by the Netherlands in Bangladesh during the review period.

In addition to the activities supported with delegated MFA funding through the EKN, it is also necessary to consider the MFA's centrally funded activities that had links to Bangladesh. Table 3.2 below summarises these activities: additional detail is given in Table IV.2 at Annex 4. The tables show the full set of activity categories and sub categories adopted by this global review (section 1.1 above); for some (sub) categories there are no centrally funded activities relevant to Bangladesh. They combine information obtained before the Bangladesh mission from the available documentation, with findings obtained in country, mainly from interviews at the EKN. It shows that linkages between these centrally funded activities and

the much larger delegated programme were limited; that the thematic and/or operational relevance of many of the activities is considered limited from the perspective of EKN and GOB informants; but that some proved, or could prove, relevant and complementary. As reporting on these centrally funded activities is not broken down by country of expenditure, it is not possible to say what MFA expenditures through this channel were in Bangladesh. Nor do available data permit analysis of these activities by water management policy objective or by area within Bangladesh where activities may have been supported. As can be seen from Table 3.2, most of the work supported was at the level of national policy and institutions.

Beyond the direct purview of MFA (as noted in section 3.1.2), the Partners for Water programme supported a number of activities in Bangladesh during the review period. These activities are summarised in Table 3.3 below. Like the table on centrally funded MFA activities, this table combines information obtained from data in The Hague (in this case, from RVO) with comments deriving from enquiries in Dhaka. For some low-budget activities, it was not possible to obtain any further information in country. The table excludes activities focused on drinking water and sanitation, as well as grants related to tackling the negative effects of the Bangladesh textile industry on water quality. The total amount committed for these activities through RVO was EUR 1.5 million. Adopting the categorisation suggested above for the delegated projects, the largest proportion of funding (43%) went to water productivity, on the assumption that that is the best way to describe the Satellite for Crops work. Several activities, totalling 34% of the total commitment, worked on aspects of disaster risk reduction. If the various atlas and information activities are classed as policy and planning support, this group received 23% of the total commitment. 'General' activities in the PvW portfolio (3% of total commitment) comprise miscellaneous scoping, administrative and publicity activities. As for the other centrally funded activities, it is not possible to offer a breakdown by geographical target area.

As noted above, FDW did not fund any activities in Bangladesh during the review period. ORIO funded one, in the DRR category: the identification phase of the Water Management Infrastructure project in Bhola District. This project would improve water safety for more than 1.6 million people living on Bhola island on the Meghna River through a major programme of infrastructure rehabilitation. ORIO funding for this initial phase in 2013-2014 was EUR 1.36 million.

This discussion has shown that, seen from Dhaka, co-ordination and administration of the suite of modalities, instruments and mechanisms for support to water management appeared fragmented and sometimes confusing by the end of the period under review. Preparation and implementation of the Bangladesh Delta Plan 2100 project was a case in point. Key players in that process were the Netherlands infrastructure agency Rijkswaterstaat (with its previous involvement in the twinning arrangements with Bangladesh (section 3.2.4)), the Ministry of Infrastructure and Environment, the RVO and the MFA. Also significant were the office of the Delta Commissioner in the Netherlands, and, more diffusely, the Netherlands Water Partnership (NWP). According to informants, there were difficulties in harmonising the contract tendering, award and administration procedures of RVO and the

EKN. RVO reportedly had no subsequent engagement. There was strong professional support from Rijkswaterstaat and the Delta Commissioner, with more administrative and co-ordination inputs on the Dutch side from the NWP.

Table 3.2 MFA centrally funded activities with links to Bangladesh: summary

Activity name	Period	Intervention(s) in Bangladesh, as reported in available documentation	Comments	Relevance to delegated programme[14]
Water management in agriculture				
Agricultural development				
no activities				
Water productivity				
Water Grand Challenge – Securing Water for Food	Jan 14 - Dec 19	The main activity supported in Bangladesh so far has been a sandbar cropping technique.	Not considered complementary by the EKN.	Not considered relevant.
IFAD Agricultural Smallholder Adaptation Programme	Nov 12 - Oct 16	The Netherlands co-finances this IFAD programme to strengthen small-scale farmers' resilience to climate change.	The EKN reported no active interaction with this project.	Not considered relevant.
(Sub) national water management				
(Sub) national water management planning				
no activities				
(Sub) national water management implementation				
(River) basin management				
Water and Nature	Nov 08 - Dec 14	This IUCN initiative promoted IWRM; Bangladesh falls within one of its demonstration river basins (Himal-Hindu Kush)	Not known to the EKN; nor are links to the Ecosystems for Life project known there.	Not considered relevant.
Coastal development				
no activities				
Disaster management				
no activities				
Transboundary water management				
no activities				

[14] This assessment of relevance is based on the evaluation team's interpretation of responses from EKN informants and other Bangladesh stakeholders.

Table 3.2 MFA centrally funded activities with links to Bangladesh: summary				
Activity name	**Period**	**Intervention(s) in Bangladesh, as reported in available documentation**	**Comments**	**Relevance to delegated programme[14]**
Cross-cutting policy themes				
Climate				
no activities				
Good governance				
Water Integrity Network	Jul 14 - Dec 17	The Bangladesh Water Integrity Network is part of this global alliance.	The EKN had some initial interaction with the Bangladesh Water Integrity Network, but little more recently.	Limited relevance.
Gender				
IWRM, Gender and Water in South Asia	Jan 08 - Dec 13	The project carried out a number of research and training activities in Bangladesh.	The EKN was aware of this project's activities in Bangladesh, but the follow up is not known.	Relevant.
Environment				
no activities				
Across water management themes				
Global Water Partnership activities				
Global Water Partnership	Jan 98 - Dec 17	Promotes IWRM, notably through the Bangladesh Water Partnership (BWP, established 1998 and hosted by the Local Government Engineering Department (LGED)).	Bangladesh Water Partnership was initiated by the LGED; BWDB was not involved. Most of the membership are concerned with WASH.	Not considered relevant.
Knowledge institutions' activities				
CapNet	Jan 01 - Dec 15	The Bangladesh CapNet 'has good linkages with universities and government and has been active in the development of case studies on climate change' (Cap-Net, 2015, p. 52).	Not known to the EKN.	Not considered relevant

Table 3.2 MFA centrally funded activities with links to Bangladesh: summary

Activity name	Period	Intervention(s) in Bangladesh, as reported in available documentation	Comments	Relevance to delegated programme[14]
Urbanising Deltas	Oct 12 - Dec 22	This is a research programme co-ordinated by the Netherlands Organisation for Scientific Research (NWO), funding work by north-south consortia.	There is clear potential for complementarity between this relatively new research programme and the BDP 2100 exercise, if the latter is carried forward.	Relevant.
Programmatic support for UNESCO-IHE	Jan 08 - Dec 19	Through DUPC (DGIS - UNESCO-IHE Programmatic Co-operation), support is provided for UNESCO-IHE activities in many countries – including several in Bangladesh.	The EKN was not directly aware of what this programmatic support may have assisted in Bangladesh.	Limited relevance.
Multi-donor trust funds				
Water Financing Partnership Facility	Apr 07 - Dec 18	The Netherlands contributes to this Asian Development Bank (ADB) facility, which has supported various water management initiatives in Bangladesh.	Assisted in the formulation of the National Water Act, the preparation of the ADB-funded Irrigation Management Improvement Investment Programme and the preparation of SWAIWRPMP.	Very relevant.
Promotion of engagement of Dutch water sector				
Young Experts Programme	Jan 13 - Dec 18	One Dutch young expert has been posted to Bangladesh, in the water and sanitation sector.	This programme is considered complementary, providing junior expertise at low rates and helping to develop a new generation of Dutch specialists.	Very relevant.
Aqua For All PPP Innovation Programme	Oct 14 - Dec 19	This programme aims to promote small-scale innovations in the water sector through public-private partnership arrangements.	Relevant to WASH activities, although the technology may present pricing challenges.	Relevant.

Table 3.3 Water management activities supported through Partners for Water									
Type	**Year**	**Project number**	**Start date**	**End date**	**Status in RVO database**	**Applicant**	**Full title; objective**	**Original commitment EUR**	**Comments**
Commission	2013	PVWA13017	26-8-2013	30-9-2015	Running	Nelen & Schuurmans B.V.	Satellite for Crops (linked to BRAC and CEGIS)	609,512	By far the largest PWV activity in Bangladesh, supplemented with EUR 167,500 funding through the EKN. Implemented by BRAC and CEGIS with inputs from the Dutch partners. Piloted delivery of satellite-sourced cropping data by mobile phones. Produced, *inter alia*, a business plan for the technique to be made commercially available in Bangladesh. This business plan has not yet been implemented.
Subsidy	2011	PVWS11048	1-1-2012	31-12-2014	'Fixed' [vast-gesteld]	Wageningen IMARES	Eco-engineered coastal defence integrated with aquatic food product	323,934	Bangladesh stakeholders are aware of this initiative, which was intended 'to provide authorities in Bangladesh with an alternative method for climate change adaptation, by using the natural water flow resistance of molluscs (such as oysters) in order to improve safety for humans against erosion and flooding, and at the same time to deliver a sustainable source of aquatic food' (Wageningen University, 2016). Technical viability and relevance is questioned. Stakeholders are not aware of any follow up.

Table 3.3 Water management activities supported through Partners for Water									
Type	**Year**	**Project number**	**Start date**	**End date**	**Status in RVO database**	**Applicant**	**Full title; objective**	**Original commitment EUR**	**Comments**
Subsidy	2011	PVWS11032	1-11-2011	1-9-2013	'Fixed' [vast-gesteld]	Stichting Dienst Landbouwkundig Onderzoek Instituut Alterra	Climate Adaption Atlas Bangladesh	260,250	Preparation of this atlas linked in to the subsequent formulation of the Bangladesh Delta Plan 2100, and it has now been absorbed into the Bangladesh Delta Atlas. Stakeholders report that it faces technical sustainability and customisation challenges.
Commission	2013	PVWA13021	12-12-2013	31-12-2014	Com-pleted	Stichting Deltares	Flood Early Warning System	133,999	The project piloted a combination of voice message broadcasting and SMS messaging. Evaluation of use of a new combined system during the 2014 floods was positive. Recommendations were made about establishing the system on a commercially viable basis, potentially linked to Satellite for Crops (Deltares, 2015). These have not been taken up yet.
Commission	2014	PVWA14024	19-5-2014	30-9-2015	Running	Euroconsult Mott MacDonald	Euroconsult Mott McDonald	36,068	No further information available.
Commission	2015	PVWA15080		31-12-2015	Running	Braveheart Shipping BV	Matchmaking Mission Hydrographic Knowledge Centre	30,000	Stakeholders report that this initiative was intended to create a hydrographic knowledge hub on a potentially commercial basis. No follow up is reported.
Commission	2015	PVWA15006	1-12-2014	30-9-2015	Running	Geocycli BV		25,000	Inputs in the field of disaster management to the Climate Adaptation Atlas Bangladesh (see above.)

Table 3.3 Water management activities supported through Partners for Water									
Type	**Year**	**Project number**	**Start date**	**End date**	**Status in RVO database**	**Applicant**	**Full title; objective**	**Original commitment EUR**	**Comments**
Commission	2013	PVWA120015	1-1-2013	15-3-2013	Completed	Panteia BV	Corridor Development mission	24,999	An inland water transport scoping study. Stakeholders interviewed were not aware of any follow up.
Commission	2012	PVWA120011	23-10-2012	31-3-2013	Completed	Deltares	Building with Nature	24,967	A small study, viewed by stakeholders as of limited relevance because the context and potential for 'building with nature' are less in Bangladesh river systems than they are in the Netherlands. The concept is included in design of FRERMIP, however.
Commission	2015	PVWA15031	27-4-2015	31-5-2015	Completed	Braveheart Shipping BV	Scoping Mission Hydrographic Knowledge Centre	15,000	See above.
Commission	2015	PVWA15022	23-3-2015	30-4-2015	Completed	Flexbase	Scoping Mission Floating Buildings	10,000	The concept is viewed by stakeholders as of potential future interest, but not attractive in Bangladesh at present. They reported no follow up.
Commission	2013	PVWA13018	1-7-2013	1-10-2013	Completed	Geocycli BV	Preparing ToR and assessing proposals for Bangladesh tenders	9,920	No details available. Assumed to be linked to the Climate Adaptation Atlas Bangladesh.
Commission	2013	PVWA131418	1-1-2013	31-12-2013	Completed	Kris Kras Design BV	Delta cooperation Bangladesh 2013	1,082	Inputs related to production by Kris Kras Design BV of magazine (NWP, nd) and film about Netherlands-Bangladesh co-operation in the water sector, linked to visit to Bangladesh by Dutch Ministers.
Total								**1,504,731**	

3.1.4 Monitoring and evaluation

EQ 6: How has Dutch support for water management in Bangladesh been monitored and evaluated? What evaluations are available, and what are the main issues and lessons that they report?

Monitoring and evaluation (M&E) arrangements for the main part of the Bangladesh water management portfolio – the projects supported with delegated funding through the EKN – depended on whether the Netherlands was the only external funder of the activity. If it was, M&E was managed by the EKN in consultation with the GOB. If other external funders like the ADB and the WB were also involved, M&E normally followed the IFI's procedures, in consultation with the EKN and the GOB.

In both cases, monitoring was generally systematic, with half-yearly or annual reports submitted by project management to the EKN and/or the IFI, and the funding agencies carrying out periodic supervision or inspection missions. The EKN followed standard MFA activity assessment procedures, for example, to report to The Hague on project compliance with fiduciary and operational requirements. It also commissioned routine and extraordinary audits as circumstances required.

The approach to evaluations was less consistent. Table 3.4 shows all projects supported with delegated funding that had budgets exceeding EUR 1 million. (Where a project was recorded under more than one activity number, the activities have been merged.) Current policy makes external evaluation of projects with budgets exceeding EUR 5 million compulsory. It is of course too soon to look for final evaluations of projects still being implemented, which are shown at the bottom of the table. All those projects have undergone MTRs, except FRERMIP (co-financed with the ADB). Of the completed projects that were not co-financed only one was not evaluated: the Estuary Development Programme (EDP), which was terminated prematurely due to administrative and fiduciary difficulties with the GOB. Of the completed projects that were co-financed, two that were the subjects of ADB loans – the Emergency Flood Damage Rehabilitation Project and SWAIWRPMP Phase I – were not evaluated. Another ADB project, SSWRSDP II, was only 'evaluated' by a GOB interministerial committee. Two fairly recent projects with the UN system – Building Community Resilience Through Integrated Water Management (UNDP) and Enhancing Resilience to Natural Disasters and the Effects of Climate Change in Bangladesh – have not been evaluated, but FAO did commission an evaluation of its Netherlands-funded project on Enhancing Food Security Through Improved Crop Water Management Practices in the Southern Coastal Areas of Bangladesh. Following a long and troubled early history, WMIP, co-financed with the WB, was restructured in 2011. It did not undergo any MTR; a final evaluation is reported to have taken place, but the report is not yet available.

While not all the evaluations that were undertaken followed formal evaluation methodology – for example by consistently applying the evaluation criteria of the OECD

Development Assistance Committee (OECD DAC, 2016) – they demonstrated some commitment by the EKN and its funding partners to learn from project experience. The analysis in the rest of this report makes various references to the findings of those evaluations.

Table 3.4 MTRs and evaluations of projects with delegated funding (budgets > EUR 1 million)

Project	Co-financed	MTR	Evaluation	Comment
Emergency Flood Damage Rehabilitation Project	✓	-	-	
Char Development and Settlement Project Phase III (CDSP III)	-	-	✓	Impact evaluation of 3 phases of CDSP
Integrated Planning for Sustainable Water Management (IPSWAM)	-	✓	✓	MTR 2007 combined with 3rd Annual Review Mission
Estuary Development Programme (EDP)	-	-	-	'System review' (a kind of MTR) in 2008
South West Area Integrated Water Resources Planning and Management Project (SWAIWRPMP) Phase I	✓	✓	-	
Enhancing Resilience to Natural Disasters and the Effects of Climate Change in Bangladesh	✓	-	-	
Water Management Improvement Project	✓	-	-	WB informants stated that an evaluation was undertaken recently; the report has not yet been provided to the evaluation team.
Building Community Resilience Through Integrated Water Management	✓	-	-	The GOB met more than half the project costs.
Small Scale Water Resources Sector Development Project Phase II (SSWRSDP II)	✓	✓	✓	ADB did evaluation of SSWRSDP I in 2008, and in 2014 its IED did validation report on the project completion report. GOB interministerial committee did 'evaluation' of SS II in 2009.
Emergency Disaster Damage Rehabilitation Project (EDDRP)	✓	-	-	In 2013 ADB IED did validation report on project completion report assessment.
Enhancing Food Security Through Improved Crop Water Management Practices in the Southern Coastal Areas of Bangladesh	-	-	✓	FAO CO commissioned final term review report, which is basically an evaluation

Table 3.4 MTRs and evaluations of projects with delegated funding (budgets > EUR 1 million)				
Project	**Co-financed**	**MTR**	**Evaluation**	**Comment**
Ecosystems for Life: a Bangladesh-India Initiative (Dialogue for Sustainable Management of Trans-Boundary Water Regimes in South Asia)	-	-	✓	
Urban Dredging Demonstration Project	-	✓	-	Too early for final evaluation
Formulation of the Bangladesh Delta Plan 2100	-	✓	-	Too early for final evaluation
Char Development and Settlement Project Phase IV (CDSP IV)	✓	✓	-	Too early for final evaluation
Flood and Riverbank Erosion Risk Management Investment Programme (FRERMIP)	✓	-	-	Too early for final evaluation
Blue Gold, Programme for Integrated Sustainable Economic Development by Improving the Water and Productive Sectors in Selected Polders	-	✓	-	Too early for final evaluation

3.1.5 Reflection of Dutch water management policy in Bangladesh interventions

EQ 2: To what extent, and how, was evolving Dutch water management policy reflected in engagements with Bangladesh?

A key question for this evaluation is the extent to which evolving Dutch water management policy was reflected in engagements with partner countries – in this case, Bangladesh. A preliminary way to answer this question is to see what the MASPs said – as they were the guiding framework for most those engagements, i.e. the activities supported with the EKN's delegated budgets. Then, we must review the content and direction of the portfolio of activities as a whole.

Reflection of Dutch policy in the MASPs

Section 2.3 above outlines the evolution of Dutch aid policy for improved water management, as presented in more detail in chapter 2 of the overall evaluation report. Section 3.1.1 summarises what the MASPs said.

Following the major cyclones early in the review period, the **2008-2011 MASP** understandably emphasised water safety, matching the Netherlands' global commitment to safe deltas. The growing threats posed by climate change were clearly mentioned. The MASP's emphasis on linkages between water management and improved rural livelihoods predated the commitment of the MFA's 2012 policy letter to integrating food security and addressing the needs of the poorest; but this set the tone for a strong trend through the review period of increasing emphasis on sustainable agrarian development rooted in improved water management. The Dutch policy commitment to mainstreaming gender was also clear, and maintained through subsequent MASPs. Also already evident was the self-interested commitment to maintaining a strong Dutch profile in the Bangladesh water management sector, which was to become increasingly prominent in MFA policy during the review period.

This last theme was prominent in the **2010-2011 MASP,** which emphasised the governance challenges and expressed some frustration with the lack of progress in water sector institutional reform and gave strong hints about working outside the public sector. The **2012-2015 MASP** returned in more detail to the themes of climate change, water safety, the links between water management, food security and rural development (especially for the poorest groups) and the importance of strengthening the profile (and between the lines, the commercial opportunities) of the Dutch water sector in Bangladesh, through the newly established Water Mondiaal programme. Neatly reflecting the 2012 policy letter's emphasis on plans for sustainable growth and water security, the MASP could report on the joint intention to proceed with a BDP. This intention also offered scope – or so it may have seemed from the Dutch perspective – for a broader (and potentially more commercial) engagement of the Dutch water sector in Bangladesh delta development. It thus also reflected the growing Dutch policy focus on marketing Netherlands water expertise and capacity in developing and transitional countries.

Most recently, the **2014-2017 MASP** echoed global Dutch policy commitment to helping the poor through improved water management, with continued mainstreaming of climate change concerns and an even stronger emphasis on profiling and building opportunities for the Dutch water sector. As noted in section 3.1.1, 'aid to trade' was now the EKN's motto.

IWRM and participatory approaches

Overall, it can be seen that the EKN's strategy across the review period carefully reflected trends in the MFA's global policy for supporting improved water management. Two themes received less explicit emphasis, possibly because they were already well established. These were the concept of IWRM (section 2.3) and, within that, the commitment to participatory approaches. With its own long history of participatory water governance, the Netherlands is sometimes seen as the leading proponent of such approaches in developing countries, and it was certainly working with Bangladesh in this direction from the 1970s (Quassem and Van Urk, 2006; Dewan *et al.*, 2014). For Dutch policy, the evolution of IWRM with the four principles of the Dublin statement – including the importance of the participatory approach and of women's role) was natural, and IWRM was the guiding theme of the Netherlands-supported water management portfolio in Bangladesh during the review period, having been adopted in the 1990s (IOB, 1998, p. 146).

At the same time, the ways in which the portfolio achieved this 'integrated' water resource management went through a number of changes between 2006 and 2016. Participation, local institutional development and related governance issues were already in focus at the start of the period. This could be seen in SSWRSDP II, working with the LGED to support the development of Water Management Co-operative Associations (WMCAs), in line with the Guidelines for Participatory Water Management (MWR, nd) that were approved in 2000 in the framework of the 1999 National Water Policy (MWR, 1999). SSWRSDP II also focused on benefits for the poorest people in rural communities, through their employment for infrastructure work in Landless Contracting Societies (LCSs) (IOB, 1998, p. 154). A little later in the review period, IPSWAM continued this emphasis on local institutional development: 'it is seen as one of BWDB's most successful examples of participatory water management' (Dewan *et al.*, 2014, p. 348). SWAIWRPMP built on the IPSWAM approach, working with local residents and authorities to build a similar network of water management organisations (WMOs). With its broader rural development remit, CDSP was equally committed to participatory approaches within an IWRM framework, facilitating a more fundamental process of institutional development in newly settled areas. This involved the formation of, *inter alia*, WMGs, Water Management Associations (WMAs – higher-level structures combining several WMGs), Local Area Development Committees, LCSs, Tube Well User Groups and Farmer Forums (IFAD, 2015, p. 11).

Broader rural development approaches

In this portfolio, CDSP was the pioneer of a broader integration of water resource management with other components of sustainable rural development, reflecting Dutch policy emphases on water safety, water security, sustainability and food security, all developed through participatory planning processes linked to local institutional development, and all focusing on improving the livelihoods of the poorest people in rural society. It was well placed – in fact, compelled – to adopt this broad approach in the vulnerable, deeply impoverished coastal areas where it was helping people to build livelihoods and organised local services for the first time – ahead of much GOB presence in these newly accreted chars. CDSP IV thus combined the policy emphases on water productivity and water management planning, in a complex structure of relationships (Development Project Proformas, or DPPs) with six GOB ministries.

Intentionally or otherwise, evolving Dutch policy for support to water management thus came to look more like integrated rural development than just IWRM. By the end of the review period, some of the key projects in the portfolio were engaged in many initiatives that all depended on enhanced water safety and water security but sought to build sustainability by simultaneously working to increase land- and water-based incomes for the rural poor, partly by enhancing the agricultural productivity of water (through its timely addition or removal in cropped areas). This type of integration was not the explicitly stated intention of MFA policy; but it was not unreasonable to pull the strands of that policy together into that sort of development approach. Two challenges arose, however. The first was adequate administrative and managerial co-ordination of the many activities and the multiple GOB and NGO agencies involved, either through multiple DPPs (as in CDSP IV) or just two - in the case of Blue Gold, the largest and most multiplex project in the review

period, which started in 2013. The second challenge was adequate substantive, operational integration, so that the various elements proved complementary in practice as well as in theory. Neither of these challenges was fully overcome, particularly in the case of Blue Gold, where operational and organisational disconnects were more evident in 2016 than in the case of CDSP – which had had longer experience in achieving the necessary co-ordination.

Transboundary water management

In 2010, the EKN started funding an IUCN programme to build TWM dialogue with the country's riparian partner states, notably India. However, this support did not extend to any visible Dutch effort in the field of international mediation, conflict resolution and 'water diplomacy', to which the MFA's 2012 policy letter had drawn attention as a field of Dutch expertise (MFA, 2012, pp. 11-12).

Development co-operation and other policy commitments and instruments

Even in the first MASP of the period, as shown above, the EKN was reflecting the increasing emphasis of Dutch policy on building the profile of the Dutch water sector and creating commercial opportunities for Dutch firms. This emphasis, which became stronger over the 11 years under review, was not fully reflected in the work of the MFA. The explanation is complex.

First, MFA policy was increasingly required to link to other fields and responsibilities in the Dutch government, notably those of the Ministry of Infrastructure and Environment and the Ministry of Economic Affairs. MFA water management policy, and the MASPs, referred to these broader intentions, but fulfilling them was only partly an MFA/EKN responsibility.

Secondly, co-ordination of the various funds and instruments was incomplete, in The Hague and in Dhaka. Staff at the EKN and in The Hague were too busy with their own direct tasks to integrate those fully with, or even completely to keep track of, what the other agencies and offices were doing.

Thirdly, while there was a superficially good fit between some aspects of the Dutch water profile and the IWRM challenges of Bangladesh – notably around the concept of delta planning and management – the institutional, environmental and economic differences were in fact profound, meaning that substantive sharing of interests, and meaningful, sustained progress, were hard to achieve.

Finally, confusion and pessimism developed towards the end of the review period about the commercial, or trade, opportunities that the Bangladesh water sector could offer to the Netherlands. While that sector remained lucrative for Dutch consulting companies engaged in the various projects funded by the MFA and other donors, and while a few Dutch firms in areas like dredging were reportedly able to increase their turnover in the country, the consensus among Dutch stakeholders there was that Bangladesh is a difficult place for outside investors and that many of the pilots and contacts sponsored through the RVO would not achieve sustained commercial results. There was uncertainty, too, about whether the objective was trade for aid, or aid for trade, or – as the MFA officially put it in its 2013 policy letter (see section 3.1.1 above), 'aid, trade and investment' – and what that meant in

practice. Partly among those Dutch stakeholders still strongly committed to a 'development' agenda, there was a sense that the GON had now made commercial profit a higher priority and that aid was now expected to serve trade objectives. An alternative view was that building trade relations could enhance aid effectiveness and accelerate development.

The bottom line, by the end of the review period, was that the EKN continued its focus on its delegated project portfolio, whose combined budget still dwarfed those of all the other instruments, while contributing to the co-ordination of the full water policy portfolio of the various ministries involved in the Netherlands 'International Water Ambition', as it came to be known in 2015. It made these contributions as a member of the 'Delta Team of GON officials in The Hague and Dhaka, which was responsible for co-ordination of the overall portfolio.

3.6.1 Water productivity, water security and water safety

EQ 3: Did Dutch support for water management in Bangladesh achieve an appropriate balance between water productivity and water security and safety initiatives?

Question 3 in the evaluation matrix for this country study (Annex 2) asks whether Dutch support for water management in Bangladesh achieved an appropriate balance between water productivity and water security and safety initiatives. As has been shown above, the approach during the review period was mainly to integrate these aspects of IWRM. Partly this was because earlier decades of effort had focused more on water safety, in response to the serious cyclone and flood disasters in the young history of Bangladesh (IOB, 1998). Nevertheless, Table 3.1 above shows that 13% of expenditure through the delegated EKN budget was still spent on projects working mainly on disaster risk reduction; and other activities, most notably CDSP, continued to pay careful attention to water safety as the foundation for all other efforts to build sustainable livelihoods.

The main reason for this integration, however, was that it was rarely appropriate to focus initiatives on water productivity. Table 3.1 hows that two substantial projects and one small technical initiative fell into the water productivity category, receiving 4% of the total delegated budget over the review period. One of these projects was for Enhancing Food Security through Improved Crop Water Management Practices in the Southern Coastal Areas of Bangladesh, implemented by FAO, and the other was the Satellite for Crops initiative, to which the EKN made a small contribution (with most of the funding coming from PvW). But many other projects worked with land users on aspects of water productivity within a broader effort to improve crop production, nutrition and incomes on the basis of enhanced water management. In some cases, this meant producing an extra crop each year. At the end of the review period, the Blue Gold project was also piloting community agricultural water management initiatives that encouraged all land and water users in an area to plant the same crop at the same time, optimising use of the changing water levels for maximum harvest and subsequent income.

It is hard, and probably not helpful, to define the distinction between water productivity initiatives and other efforts to increase agricultural productivity and incomes, for example through the value chain activities being undertaken in the SWAIWRPMP and Blue Gold areas by the end of the review period. As argued above, however, the challenge was to co-ordinate these efforts and make sure that all the strands of what were still meant to be water management projects were complementary and synergistic. Overall, the portfolio did achieve an appropriate, integrated balance between water productivity, water security and water safety. But, as will be shown below, in addition to these emerging questions of co-ordination and coherence in increasingly complex projects, longstanding issues of sustainability stayed stubbornly in place.

3.2 Effectiveness

Evaluation questions 7-27 in the ToR for this country study concern various aspects of effectiveness. This section sets out the study's findings with regard to those EQs. As in section 3.1 above, each sub-section starts by showing the EQ(s) to which it responds.

3.2.1 Physical infrastructure

EQ 7: Did Dutch support contribute to an enhanced water management regime (appropriate infrastructure, technically appropriate and sustainable operating systems and durable local institutions) for crop production in Bangladesh?

The physical infrastructure built or rehabilitated through Dutch-funded water management projects served the overlapping functions of water safety and water security. As noted above, the overriding concern with water safety in earlier decades was moderated by a broader commitment to water security during the review period – partly because much had been achieved in the narrower field of water safety, and partly because of the recognition that water infrastructure had to yield economic benefits to encourage users to maintain it. However, water safety continued to be a fundamental purpose of the infrastructure rehabilitation undertaken in this period by projects like SSWRSDP II, IPSWAM, SWAIWRPMP and Blue Gold. It was, of course, the dominant purpose of the EFDRP and the Emergency Disaster Damage Rehabilitation Project (EDDRP) in the early part of the period, and, later in the period, of FRERMIP. Because of the vulnerability of its operating area, water safety was also prominent in the objectives of CDSP III and IV.

Nine of 17 online survey respondents (section 1.4) rated the **effectiveness** of the project they had been or are associated with as satisfactory or highly satisfactory. Some comments from respondents:

'With respect to sustainability, a great deal has been achieved. An exit strategy was prepared ... 3 years before the original end of the project, and actions taken to ensure the post-project sustainability of WMOs.'

'It seems that BWDB is not interested to own the WMOs.'

'Gains in community water management arrangements for O&M were not fully sustained since:
- Government commitments to periodic and emergency maintenance were not fulfilled.
- The time period was too short for community organisation to become fully sustainable without limited (non-financial) support.'

'The project was sick due to the Client's insufficient experience and the size of the project was large to implement with is this experience. It was restructured and number of the schemes of participatory approach was reduced to one third and was implemented finally.'

Physical infrastructure contributed to water security mainly through smaller-scale structures that enabled land users to manage the quantities of water in cultivated areas – through drainage, irrigation or a combination. (They contributed to other spheres of water security too, by helping to promote ecosystem integrity and assure adequate safe drinking water supplies (UN Water, 2013).) This better agricultural water management created opportunities for higher incomes and more sustainable livelihoods.

Overall, from a technical perspective, most of the infrastructure built or rehabilitated by the projects reviewed was effective. Design and construction mistakes were certainly made, however – as noted, for example, by the ADB's validation report on the EDDRP (ADB, 2013, p. 5); the MTR of SWAIWRPMP (GOB, 2014, p. 23); the evaluation of IPSWAM (EKN and BWDB, 2011, p. 10); and the MTR of Blue Gold (Van Steenbergen *et al.*, 2015, p. 8). Informants in the Blue Gold area reported design and construction failures to this evaluation, such as leaking sluice gates and allegedly inappropriate alignment of drainage channels; Blue Gold also suffered significant design weaknesses in its underestimation of the scale of rehabilitation work that would be needed (Van Steenbergen *et al.*, 2015, pp. 6-7). Furthermore, the BWDB's ability to deal with major maintenance works and emergency repairs was still not assured (Van Steenbergen *et al.*, 2015, p. 8).

Of 11 online survey respondents (see section 1.4) who thought the question applicable to the project they are or were associated with, seven rated performance with regard to **technical quality and progress in hardware and infrastructure development** as satisfactory or highly satisfactory. Some comments from respondents:

For many reasons, progress on the infrastructure component has been unsatisfactory.
The technical quality of hardware and infrastructure development is highly satisfactory, but there has been unexpected erosion of land and embankments on the southern coast of the project.
The first year implementation (after one year delay) could over perform in terms of progress.

Two more fundamental challenges affect the effectiveness of the physical infrastructure. The first, mentioned by many informants, is widespread corruption in the construction process. Tendering and contract award may be unfairly influenced; poor or corrupt supervision may allow contractors to cut corners. While the GON applied strict measures to combat such practices, it was not always able to prevent them at field level. Some informants called for more foreign supervision of water management contracts in Bangladesh, even though there is adequate engineering capacity in country, because this might help to reduce fraudulent practice and increase the quality and effectiveness of the physical works. Implementation of physical works funded by the Netherlands through the EKN is supervised and, if satisfactory, certified by project TA teams, which gives a better assurance of quality.

The second, most fundamental challenge is maintenance and sustainability. Apart from CDSP and FRERMIP, most of the physical works carried out during the review period comprised rehabilitation of structures built by earlier projects. A largely legitimate reason for rehabilitation work is the huge damage caused by periodic cyclones – although Bangladesh reportedly still lacks an adequate system for emergency repairs (Van Steenbergen *et al.*, 2015, p. 50). The deeper reason is the continuing failure to budget for adequate maintenance, combined with institutional weaknesses at national and local levels that preclude properly funded and organised maintenance programmes to sustain the huge investments that have been made. Informants describe a perpetual cycle of 'build, neglect, repair'. However effective the physical infrastructure built by the projects under review may have been in the short term, there is no convincing evidence that those benefits are sustainable.

Of 13 online survey respondents (see section 1.4) who thought the question applicable to the project they are or were associated with, ten rated the project's contribution to **water productivity in agriculture** as satisfactory or highly satisfactory. Some comments from respondents:

People of the community expressing their satisfaction for getting fresh water for the cultivation of their land. In some places, the farmers are producing two crops instead of one because of availability of fresh water from the canals.

There was a significant increase in cropped area, cropping intensity and yields. This was the main theme. Productivity increased, and was measured. But water use efficiency focus may have become slightly lost.

Beneficiaries are using surface water according their need through better water management. They are cultivating high value crops and increase culture fish production using ponds and borrow pits.

3.2.2 Benefits for land and water users

Agricultural productivity

EQ 8: Did Netherlands support to an enhanced agricultural water management regime contribute to increased agricultural productivity in Bangladesh?

EQ 10: In Bangladesh, did Netherlands support augment the abilities of individual farmers to use representation, knowledge and skills to improve their access to water and on-farm (water) management?

EQ 11: In Bangladesh, did farmers pay for WUA services and did WUAs account transparently for income and expenditures?

A major intended benefit of these water management interventions was improved agricultural productivity, which was expected to improve the food security and livelihoods of the rural poor. During the evaluation mission, residents of the Blue Gold and SWAIWRPMP project areas stated that there had been significant increases in rice production, as well as a diversification of crop varieties. As part of IOB's review of Bangladesh data for its global food security impact study, M&E data on agricultural productivity were collated. The review found that the methodology of the various studies was not very robust and that it was not possible to be fully confident in the findings. However, it quoted IPSWAM impact study data showing an increase in cropping intensity; rice yields that were 15-34% higher; and 'significant' increases in yields of pulses, oil seeds and vegetables. The IPSWAM evaluation quoted these positive impact study findings, confirming them from its own mission's observations in the project area (EKN and BWDB, 2011, pp. 13-15). From the SWAIWRPMP final report, the IOB review quoted an increase in broadcast *aman* rice yields from 1.2 to 2.56 t/ha, as well as smaller increases in yields of other types of *aman* rice and an expansion in cropping area and intensity. It also quoted a 2008 survey of SSWRSDP areas that found a yield increase of 0.85 t/ha for cereal crops and 2.98 t/ha for non-cereal crops over a period of two to four years after the completion of sub-project interventions (Heun and Kessler, 2016, pp. 14-15).

The IOB impact study of the Blue Gold project referred to in section 1.3 above assessed the project's results so far in terms of agricultural productivity in project and control areas.[15] It found that 42% of respondents in the project areas surveyed believed that access to water for agricultural production had increased in the previous two years; while hardly anyone thought this in the non-project (control) areas. Access to irrigation water was seen to have improved in the project areas. Both respondent perceptions and quantitative survey data suggested that, in the project areas, production of food crops and of fish – especially aquaculture – had improved over the two years. However, statistical analysis could not attribute these real improvements to the work of the Blue Gold project, as similar trends occurred in the control areas. Furthermore, in fact the level of production of all crops per household remained higher in the control areas. The draft impact study report suggests that the improvements in the project areas may result from the intensified agricultural extension work undertaken by Blue Gold (Farmer Field Schools and Market Oriented Farmer Field Schools), learning from which probably spread to control areas. It notes also that the project areas suffered weather damage to crops, including waterlogging, during the study period. It should also be noted, however, that during the two-year period under review by the impact study, the Blue Gold project was making a slow start and had not yet started improvements in water management infrastructure in the project areas covered by the study. It is therefore not surprising that improvements could not be attributed to the project.

One project particularly focused on agricultural productivity was that for Enhancing Food Security through Improved Crop Water Management Practices in the Southern Coastal Areas of Bangladesh, implemented through the BWDB and the Department of Agricultural Extension (DAE) by FAO. This activity 'was conceived by the donor as a precursor to the larger Netherlands-funded water management project, Blue Gold', and in fact worked in the same areas as Blue Gold for two years (FAO, 2015, pp. 13, 43). The review of this project that FAO commissioned found that, due to weaknesses in M&E arrangements, 'the effectiveness of the project to attain the outcome and the impact are unknowable because the result is unable to be measured. However, what is known is that this project made a significant positive improvement in the agricultural productivity of the project areas' (FAO, 2015, p. 49).

Of 11 online survey respondents (see section 1.4) who thought the question applicable to the project they are or were associated with, nine rated the **sustainability or likely sustainability of the project** as satisfactory or highly satisfactory. Some comments from respondents:

Unsure if project benefits will continue well beyond the ending date of the project.

Project achievements are quite sustainable, as can be seen in the areas covered under previous phases.

[15] It should be noted that this 'impact study' of Blue Gold was undertaken while the project was in fact still ongoing. As the IOB reports on the study are still in draft, we do not make direct textual references here.

Gains in community water management arrangements for O&M were not fully sustained since:
- Government commitments to periodic and emergency maintenance were not fulfilled.
- The time period was too short for community organisation to become fully sustainable without limited (non-financial) support.

WMG members raised their capital ... They are using their capital as income generation activities and O&M activities collectively. There are 14 Water Management Associations and they already made O&M agreement with concerned Executive Engineers and accordingly they perform their responsibilities. This is why we assume that WMOs will sustain and project will sustain.

The engineering approach is based on the use of Bangladesh's resources and technologies and as such easily replicable. In fact, the technology has spread based on the developed guideline for riverbank protection, from the predecessor project ... I do not consider institutional development, which cannot be really influenced by this project.

IOB's review goes on to point out that other factors may be at least as significant in affecting agricultural productivity in water management project areas (Heun and Kessler, 2016, pp. 15-16). These include extreme weather events and the effects of climate change, which informants frequently mentioned to this evaluation mission as hampering successful crop production. National and local economic factors are likely to be significant, too – the IOB study points to market access and engagement in value chains as important factors. This was recognised by the Blue Gold project, which was working at the end of the review period to stimulate the development of agricultural value chains to build on the new skills developed through farmer field schools – one of several ways in which this 'water management' project was, in effect, a rural development programme.

Broader livelihood benefits

The succession of CDSP projects achieved the widest range of livelihood benefits for poor rural people, many of whom in the CDSP case had been landless but were awarded secure land tenure through the project. Participatory wealth rankings at ten places in the CDSP III area found that 16% of households were categorised as 'not poor' in 2010, compared with none in 2005; in 2010 36% were ranked in the next best category, 'moderately poor', compared with 6% in 2005; and 48% were ranked as 'very poor' or in 'chronic food crisis', compared with 94% in 2005. The impact study of CDSP I, II and III found that 'although poverty levels in the CDSP-III area have been reduced, there remains a high level of poverty as the full agricultural benefits of development are yet to be realised' (Alamgir et al., 2010, pp. 23-24). IFAD's MTR of CDSP IV judged its poverty focus as 'satisfactory': 'while targeting the community as a whole, CSDP also pays attention to the poorer or more disadvantaged people. In fact, by ensuring the long-term land rights of landless people CDSP IV has broken a tradition of Noakhali char area; now the influential are no more interested in grabbing newly accreted chars as they assume the CDSP will come anytime and distribute the land among landless settlers' (IFAD, 2015, p. 12). The MTR reported mixed results from a survey of food security and nutritional indicators: 'the proportion of households experiencing food

shortages for 5 to 6 months a year has decreased dramatically from 29% to 8%. The proportion of households experiencing shortages for more than 6 months, however, only decreased to 16%, from 17% in 2009. Nonetheless, stunting rates have not changed, remaining at 52% of the children under-5 surveyed, wasting rates have decreased from 18% to 14% and underweight rates have decreased from 58% to 43%'. It also reported that average household incomes had increased threefold (IFAD, 2015, p. 17). CDSP, too, was far more than a water management programme.

Land and water users arguably enjoyed additional livelihood benefits from Dutch-funded projects through the individual and group capacity development processes associated with the development of local water management institutions. These benefits are assessed in section 3.2.3 below.

3.2.3 Local institutions

EQ 9: In Bangladesh, did Dutch support enhance the national and local institutional environment for and capacity of water user associations (WUAs) for participatory operation and maintenance (O&M) of water infrastructure?

EQ 10: In Bangladesh, did Netherlands support augment the abilities of individual farmers to use representation, knowledge and skills to improve their access to water and on-farm (water) management?

EQ 11: In Bangladesh, did farmers pay for WUA services and did WUAs account transparently for income and expenditures?

As part of the impact evaluation of the Blue Gold project that is linked to this policy evaluation, an assessment of local institutional issues was undertaken (Heun and Kessler, 2016). This report refers to that study as well as to review of project documentation (in particular MTRs and evaluations) as well as to the views of informants met in Dhaka and the field.

Institutional arrangements

Work funded by the Netherlands during the review period built on the long-established foundations of Dutch support for participatory water management (PWM) in Bangladesh (section 3.1.5 above). Support for the (re)development of WMOs was a central feature of all the Dutch-funded projects aimed at enhancing rural livelihoods through improved water management. For most of the review period, this meant facilitating the (re-)establishment of WMCAs, which were registered under the Co-operative Societies Act under the auspices of the Department of Co-operatives in the Ministry of Local Government, Rural Development and Co-operatives. Local institutional development through these projects followed the Guidelines for PWM referred to in section 3.1.5 above (MWR, nd), with WMCAs as the most local bodies, grouped under second-tier structures (Water Management Associations

(WMAs)), which were in turn, officially, combined into Water Management Federations. These arrangements were pursuant to the National Water Policy of 1999, which stated that 'the management of public water schemes ... with command area up to 5,000 ha will be gradually made over to local and community organisations and then O&M will be financed through local resources' (MWR, 1999, p. 9).

Decisions on institutional approaches to PWM are of course a domestic responsibility, but it would appear that, despite its commitment, the Netherlands did not succeed in promoting the most productive directions for institutional development in this regard in Bangladesh. This was always a challenge with the BWDB, given its predilection for infrastructure work; other donors did not engage strongly with the local institutional challenges and opportunities of PWM; and the Dutch-funded projects did not manage to build a fully harmonised approach in partnership with the national authorities.

Of 14 online survey respondents (see section 1.4) who thought the question applicable to the project they are or were associated with, eight rated the **contribution to institutional development and capacity building** as satisfactory or highly satisfactory. Some comments from respondents:

One of the main objectives is to prepare sustainable self-learning water management organisations (WMOs) by capacity building including coaching and mentoring and exchange visits, facilitating private and public sector partnerships, and promoting wider uptake by horizontal expansion.

Institutional development started from scratch in these remote and inaccessible areas, with initially no law and order and isolated communities without much cohesion ... As the project progressed and communication was gradually established and people were organised in various ways, communities became stronger and more resilient.

There are 102 WMGs (about 25,400 members and 10,109 members are women 40%). Due to local situation, 5-6 WMGs are not satisfactory level.

The project managed to get the upper level management of the BWDB to meet regularly and discuss institutional development issues. However, this has yet to translate into coordinated action.

In 2014, in a move that reportedly perplexed the BWDB, the Ministry of Water Resources (MWR) introduced new Participatory Water Management Rules (in terms of the Water Development Board Act, 2000) that required WMOs to be (re-)registered as Water Management Groups. Towards the end of the review period, the Blue Gold, CDSP IV and SWAIWRPMP projects were engaged in the time-consuming details of this major exercise. The shift was welcomed by some participants because the new WMGs were to be supported by the Chief: Water Management in the BWDB, a body focused on water resources. It was regretted by others because the loss of co-operative registration reduced WMOs' legal

authority to carry out the savings and loans functions that are often the most attractive feature of such bodies for local people: most WMO members can gainfully engage in such microfinance activities throughout the year, alongside more intermittent water management tasks.

Institutional capacity

The specific wording of the evaluation question on this issue (Annex 2) is whether Dutch support enhanced the national and local institutional environment for, and capacity of, WMOs. National issues are dealt with below. At the local level, Dutch support through the various projects certainly helped to strengthen the local water management institutions. Visiting currently or recently operational projects (Blue Gold and SWAIWRPMP), this evaluation mission found that WMGs appeared active and confident, with adequately strong female representation, a clear understanding of their responsibilities and – as far as could be ascertained during short visits – the competence to manage local water resources in consultation with the BWDB. However, no staff of the BWDB Chief: Water Management were assigned full time to the Blue Gold project, reportedly due to staff shortages (section 3.2.4). Linkages with the local government structures, the Union Parishads, appeared to enhance the authority of the WMGs and their ability to achieve management actions. One WMG visited by this evaluation mission said that their identity as a group had strengthened their interface with the BWDB and with the Department of Agricultural Extension (DAE) of the Ministry of Agriculture; that the Union Parishad had been co-operative too, and that members of that body regularly attended WMG meetings. As the MTR of CDSP IV noted, 'the formation of community-based organisations, such as WMGs … together with capacity strengthening, builds up the social capital' (IFAD, 2015, p. 18). Despite their official loss of legal authority for the purpose, many WMGs reportedly continued their microfinance activities at the end of the review period. Earlier in that period, the GOB's internal evaluation of SSWRSDP II noted that 'many of the WMCA members have become self-reliant, borrowing loan[s] from the WMCAs and adopting different IGAs like fish culture, sewing machine[s], cow rearing, beef fattening, purchase of agriculture input[s] and rickshaw van[s]' (GOB, 2009, np[16]).

Payment of fees

Part of the PWM approach to developing WMOs was that members (ideally all the land and water users in the area) should pay a joining fee and then a periodic membership fee, typically BDT 20 (EUR 0.23); the joining fee ranges from BDT 50 to BDT 100. Not everyone in the community does join the WMO. In 2015, the Blue Gold MTR found that 63% of all households had joined (Van Steenbergen *et al.*, 2015, p. 4). Some people are apprehensive or suspicious, and may join later once they see that the new organisation is not a threat and is doing useful work. Other, richer people may feel no need to join such a group, since they already enjoy substantial control over water and water management systems. Indeed, the attitude of the elite is an ongoing problem for many WMOs, which report that such better-off families have unfair levels of control and of (allegedly corrupt) access to authority. The standard principle of successful common property resource management – that the rich

[16] np: no page number.

must see the venture as in their interests too – is often not met. Many other factors and forces in the intense local politics of rural Bangladesh also complicate the progress of the WMOs that Dutch-funded projects have helped to develop.

Of 12 online survey respondents (see section 1.4) who thought the question applicable to the project they are or were associated with, eight rated the **application of participatory approaches** as satisfactory or highly satisfactory. Some comments from respondents:

PWM is at the heart of our project – protecting polder communities from floods and sea surges, and facilitating in-polder water management (drainage and irrigation) with the aim of optimising agricultural production.

It is in paper, not in reality.

WMOs are taking decision jointly (Water Management Associations) for operating the regulators for crop and fisheries production. They engage gate operators and paying operator's salary jointly.

The strongly 'ring-fenced' approach in a fractured, entrenched institutional environment does not allow much progress towards integrated, multi-stakeholder planning and implementation.

Management and maintenance capacity

An important role of WMOs, as required by the National Water Policy, is to manage, and to help fund, the small-scale maintenance of local water infrastructure. There is insufficient evidence that WMOs in Dutch-supported project areas were achieving this adequately. They lacked the funds – although they generally accounted transparently for the money they did hold – and they lacked the institutional authority to tackle the complex local politics of land and water effectively. Furthermore, as 'water management' programmes take on a growing number of functions and sectors, there is a risk of overload, as the Blue Gold MTR noted: 'engaging in a wider range of activities – such as WASH, IGAs, micro-credit, input supply, marketing and farm clubs … is a necessary opportunity, as it adds to the long-run utility of the WMGs and can help generate income for core functions. At the same there is the risk of overload. It is noted that within the BGP there is no clear vision on the organisation and functions of WMGs as well as relations between WMOs at different levels' (Van Steenbergen *et al.*, 2015, p. 4). The IFAD MTR of CDSP IV noted that, in addition to WMGs and WMAs, that project also facilitated the formation of Local Area Development Committees, Tube Well User Groups, Farmer Forums and Social Forestry Groups, as well as the LCSs that have been used by many projects for the employment of the very poor on water management construction work.

Institutional maintenance

This all points to the most fundamental challenge in community water management: institutional maintenance, which is at least as important as technical maintenance. Institutional maintenance means the long-term provision of advisory, facilitation and (re) training services to local structures like WMGs – particularly important because experienced office holders and staff may leave and be replaced by people without the necessary skills and insights. Like pumps and canals, water management institutions cannot simply be installed by a project and then expected to function without any further attention. While the recent CDSP IV MTR was pleased to find that 'all the 10 WMG's and the WMA established under CDSP III are still very active, each meeting on a monthly basis with an average attendance of 57% of the members' (IFAD, 2015, p. 16), a major reason for this was that CDSP IV remained active in the area covered by CDSP III. A common failing, manifested in some of the Netherlands-funded projects reviewed here and noted in the MTR of Blue Gold, is to treat the formation of WMOs and other community groups as the delivery of project outputs, with less attention to the more important outcome of sustainable local management bodies that can function independently. Consequently, the 'build-neglect-repair' cycle reported above for physical infrastructure was experienced for institutional infrastructure too. Blue Gold's functionality assessment of five WMAs and 110 WMGs developed under IPSWAM found 76% of them in the lowest C and D categories, 'requiring at least major restructuring' (Van Steenbergen *et al.*, 2015, p. 25). Where WMOs do prove more sustainable, it is usually because of activities outside the sphere of water management, most notably in microfinance (Heun and Kessler, 2016, p. 23). While the Department of Co-operatives had a comparatively well-developed system for support to WMCAs; the Chief: Water Management in BWDB did not have adequate staff or capacity to provide institutional maintenance for WMGs. As with the technical infrastructure, it was the Dutch-funded projects that provided most of this essential function.

Some comments from online survey respondents (see section 1.4) about the **factors for project success:**

To succeed, this type of project needs to be part of a long-term strategy for change, and requires a consistent approach from both its principals (GOB and GON).

Improve coordination with GoB and other development partners active in water sector.

WMO formation and development should be earlier before civil works. Civil works should be finalised with the discussion of WMOs. All WMG members should be trained. Information campaign and motivational work should be well enough. After completion of the project, there should be some provision to look after the WMOs and make liaison with concern division office and other government agencies.

3.2.4 National institutions and systems

EQ 9: In Bangladesh, did Dutch support enhance the national and local institutional environment for and capacity of water user associations (WUAs) for participatory operation and maintenance (O&M) of water infrastructure?

EQ 15: Did Dutch support in Bangladesh contribute to a strengthened environment (political, national and local institutions, information, infrastructure and O&M) for actual implementation of water management plans?

This section answers two overlapping evaluation questions (Annex 2). The first, answered from the local perspective above, is whether Dutch support enhanced the national institutional environment for WMOs to achieve participatory O&M. The second is whether Dutch support contributed to a strengthened environment (political, national and local institutions, information, infrastructure and O&M) for implementation of water management plans.

The main national institution with which these questions are concerned is the Bangladesh Water Development Board, which falls under the Ministry of Water Resources and is responsible (in terms of the National Water Policy) for large- and medium-scale water management infrastructure, including schemes of 1,000 ha or more. Also falling under the MWR is the Water Resources Planning Organisation, whose mandate should have made it the main vehicle for the planning initiatives on which the Netherlands put increasing emphasis in the latter part of the review period. The Local Government Engineering Department in the Ministry of Local Government also played a significant role, notably in the SSWRSDP.

Dutch engagement at national level

Direct Dutch engagement in the national institutional environment for water management dwindled between 2006 and 2016. At the start of the period, the Netherlands was engaged in Phase II of the Twinning Arrangement between the Bangladesh MWR and the Dutch Ministry of Transport, Public Works and Water Management: specifically, the Netherlands infrastructure agency under that ministry[17], the Rijkswaterstaat. Phase III of the arrangement ran to 2009. The twinning arrangement, consisting mainly of Rijkswaterstaat missions to Bangladesh, reportedly lacked clear terms of reference and was more one-directional from the Netherlands to Bangladesh than intended. It certainly operated on small budgets (Table 3.1). But it did provide a range of institutional and planning support to the BWDB and to WARPO. The BWDB was grappling with major staff cuts, partly but not wholly related to the institutional reform work of the World Bank, whose Water Management Improvement Project, originally co-financed by the Netherlands, had a troubled history until it was restructured in 2011 (World Bank, 2011, p. 6). By the start of the

[17] Now the Ministry of Infrastructure and Water Management.

twinning relationship, the BWDB's staff numbers had already been reduced from the original 18,000 to some 12,000, and by the end of the relationship it was closer to 6,000. According to informants, it was hoped that WMIP would support the institutional reform measures in BWDB and WARPO that the twinning arrangement had helped to identify. This did not happen, although after its restructuring WMIP did continue its institutional reform efforts in these organisations – reportedly not supported with much enthusiasm by the MWR. These efforts, according to informants, included a recommendation (not implemented) that the office and staff establishment of the Chief: Water Management be abolished.

The review of the three phases of the twinning arrangement concluded that, despite the efforts at collaboration and institution building that had been made, it had been a 'problematic' period for the sector, which, when the arrangement began, 'was energised and appeared to have vision and a clear road map'. But by 2010, the sector had 'dwindled'; 'the energy and vision have been lost and MWR seems no longer to be ministry of first choice on strategic issues involving water resources … For much of the tenure of [the twinning arrangement], there has been little political will demonstrated … the sector still appears intransigent and lacking vision' (Sutherland and Hoque, 2010, pp. i-iii).

After the completion of the twinning arrangements, the focus of Dutch support was on field implementation of water management activities, together with a growing emphasis on delta planning towards the end of the review period. A 2016 review found that the BWDB 'has lost much of its credibility', and 'the long-term as well [as] project level planning capacity of the institution reduced drastically without proper exercises. The argument was that WARPO would fill up the planning vacuum, which WARPO also failed to do' (De Heer and Choudhury, 2016, pp. 27, 76).

Challenges for the BWDB

Four major challenges continued to impede the effectiveness of the BWDB. As shown above, the GOB, despite Netherlands support, was not effective in tackling these significant weaknesses in the institutional environment. First, despite decades of apparent commitment to participatory water management, the BWDB remained an engineering organisation with engineering priorities, and an implicit if not explicit unwillingness to accord equal importance to the socio-economic dimensions of the sector. Secondly, according to many informants, corruption was a major challenge. There was a natural preference, they say, for major infrastructure projects, because these offered financial advantages to staff. These two challenges constituted what one informant described as 'the battle for the soul of the BWDB'. Thirdly, and of most direct concern at field level, was BWDB's lack of operational resources: for support to WMOs through the office of the Chief: Water Management, and for implementation of larger-scale O&M through the recurrent ('revenue') budget. The Chief: Water Management lacked staff and capacity; the recurrent budget was far too small for maintenance needs, so that much of the work had to be funded from development budgets. For example, a SWAIWRPMP O&M manual said in 2011 that 'for the BWDB it is at this moment very difficult to provide the required level of operation and maintenance because of shortage of funds, lack of clear procedures geared to O&M, lack of co-ordination, no participation of beneficiaries' (Heun and Kessler, 2016, p. 5). This

weakness in the organisational environment for O&M was also manifested in the way the 2014 Participatory Water Management Rules were introduced, reportedly against the wishes, or without the prior knowledge, of BWDB management. Finally, the BWDB was an ageing organisation by the end of the review period. As noted, many posts had been cut. The BWDB was failing to retain those young professional staff whom it did employ; they typically soon moved on to more lucrative posts. Questions were beginning to arise about how the BWDB would maintain the necessary core professional capacity.

The LGED

In terms of the National Water Policy, the LGED is responsible for water management schemes covering areas under 1,000 ha. In the portfolio under review, its main engagement was with the SSWRSDP II (see De Heer and Choudhury, 2016, pp. 50-51 for a list of the LGED's small-scale water resource development activities). The LGED also played a major role in CDSP III and IV, in construction of non-water infrastructure such as local roads and cyclone shelters. SSWRSDP II, which the Netherlands co-financed with the ADB, included an institutional strengthening component to be delivered through the Project Management Office in the LGED. The GOB review of SSWRSDP II said that, with project support, LGED set up an Integrated Water Resource Management Unit to support WMCA development (GOB, 2009, p. 8); this unit remains operational in 2016. The Netherlands funded an advisory technical assistance team 'to further boost the institutional capacity of LGED' (ADB, 2014, p. 4). The ADB's validation report concurred with the finding of the completion report on SSWRSDP II that 'significantly contributed in enhancing the capability of LGED to promote and practice integrated water resources management and to support the agency's knowledge and experience in social mobilisation and beneficiary participation (ADB, 2014, p. 6). Through SSWRSDP I, the LGED (which has staff in every local upazila area and collaborated with the Department of Co-operatives in the development of WMCAs) was a pioneer of participatory water management in Bangladesh, and the approach was well established there by the end of the review period. However, the LGED philosophy for this smaller-scale water management infrastructure was that, after hand over, it became a community O&M responsibility, without longer-term LGED involvement (except for occasional major repair or maintenance of infrastructure). This risked replication of the 'build-neglect-repair' cycle and left the fundamental question of institutional maintenance unanswered (Heun and Kessler, 2016, p. 13). Since the end of SSWRSDP II, the Netherlands has not engaged substantively with the LGED on these issues.

The Bangladesh Delta Plan 2100

Towards the end of the review period, the Dutch-funded activity with the highest institutional profile at national level was the Bangladesh Delta Plan 2100. In the intense institutional politics of the country, the positioning and performance of the BDP process (section 3.2.6 below) raised new issues, without necessarily strengthening the institutional environment. Widely seen as a water planning process, it was placed under the General Economics Division (GED) of the Planning Commission, and not the MWR or the BWDB, although an official of the latter was placed in an ambiguous position as Project Director of the BDP within the GED (GON, 2015, p. 7). Although it was appropriate to place a multisectoral planning process in the agency that integrates all sectoral planning and has the most direct political authority over the approval

and implementation of plans, this did not make for easy collaboration with the MWR or the BWDB. (The WARPO, long ineffective and with a mandate reportedly not recognised by the Planning Commission, played no significant role.) Further institutional difficulties arose in the creation and performance of the 'A' and 'B' teams of consultants: the former directly appointed by the BDP project, the latter by the GED (GON, 2015, p. 6). As the review period drew to a close, there was no sign that this Dutch-supported project had strengthened the environment for the implementation of water management plans. But, as discussed in section 3.2.6, its purpose was not that narrow. In 2016, institutional rivalries and resentments remained intense. But the BDP had arguably opened up the environment for a broader understanding of how water management challenges should be understood and addressed in the adaptive management of uncertainty across the whole spectrum of national sustainable development. What remained were specific institutional measures to act on that understanding (GON, 2015, p. 8). These would need to be driven from the highest political level and would need to be co-ordinated effectively across the GOB by the Planning Commission.

3.2.5 Water management planning and implementation at local level

EQ 13: Did Dutch support contribute to approved water management plans in Bangladesh?

EQ 14: Did the water management plans that the Netherlands supported in Bangladesh follow the principles of IWRM, stakeholder participation, transparency, equity and environmental sustainability?

EQ 16: Have domestic budgets been allocated for the implementation of water management plans whose preparation was supported by the Netherlands in Bangladesh?

EQ 17: Are water management plans whose design was supported by the Netherlands in Bangladesh being implemented?

EQ 18: Is the implementation of enhanced water management whose design was supported by the Netherlands in Bangladesh achieving its objectives, notably water safety and water security?

The questions in the evaluation matrix (Annex 2) about the preparation and implementation of water management plans must be answered at two levels: local and national. As stated in sections 1.1 and 3.1.3, the main thrust of Netherlands support between 2006 and 2016 was at the local level, directly addressing the needs of the rural poor through water, land and agrarian development. These efforts were designed and delivered through local water management plans that, in some projects, linked into broader agrarian, rural development and/or community development planning. In the latter part of the review

period, a stronger Dutch emphasis on delta planning emerged, as a platform for Bangladesh-Netherlands partnerships that was meant to offer opportunities and potential commercial profit to a wider range of Dutch stakeholders.

At the local level, Dutch support contributed to the approval of numerous water management and related development plans. CDSP III 'involved settlers in the chars with planning and implementation of project activities … in the planning at field level, households were closely involved in the location and alignment of public investments as roads, cyclone shelters, tube-wells, public toilets etc.' (EMM *et al.*, 2011, p. 2). CDSP IV followed a similar approach, carrying out a range of local service development planning in the newly settled areas with the local structures whose formation it facilitated. IPSWAM had a strong focus on enhancing planning capacity at WMG level, leading to the preparation of rehabilitation and O&M plans, as well as sustainable environmental management plans, by these bodies for their sub-project areas. This work fed into the adoption by BWDB in 2008 of Guidelines for Integrated Planning for Sustainable Water Resources Management. The evaluation of IPSWAM found that 'involvement of WMOs in planning has resulted in adaptation to the plans, and hence a more appropriate water management infrastructure' (EKN and BWDB, 2011, pp. 8, 9, 24).

The restructured WMIP was meant to follow up with 'a simplified and streamlined approach to the participatory scheme management process to build upon the successful Dutch-funded … IPSWAM project' (World Bank, 2011, p. 8). In 2016, the WB reported that 'the irrigation sector reforms initiated under this project have formed a total of 785 Water Management Organizations (WMOs) and 72 Water Management Associations (WMAs) in the 67 schemes financed under WMIP. By the closure of the current project, the legal registration, training, and joint operations and maintenance (O&M) trial management activities will be completed. However, to ensure WMOs remain functional and engage in visible role of participatory irrigation management, these new structures would require additional support. BWDB needs to prepare the WMOs sustainability plan' (World Bank, 2016b, p. 2).

In the Narail and Chenchuri Beel sub-project areas, SWAIWRPMP also focused on facilitating WMOs' preparation of 'subunit implementation plans' – although the MTR found that the whole participatory water management process of the project was 'painfully slow' (ADB, 2010, p. 5). Participants in focus group discussions convened by this evaluation mission in the project area, like those in the Blue Gold area (see Annex 5), rarely mentioned the planning process as such. While they were clear about their WMGs' constitutions, roles, responsibilities and activities, and discussed the operational and institutional issues quite fully, they did not see the preparation and implementation of plans as the core concept, which has been the tendency in Dutch perceptions of the water management process.

Blue Gold continued in the earlier local planning tradition with the development of Polder Development Plans in partnership with WMGs and WMAs. BWDB was also involved with the project and these local structures in the preparation of annual maintenance plans for water infrastructure. However, Blue Gold surveys in these former IPSWAM project areas found that

implementation of earlier polder O&M plans had been far from complete, with WMGs fulfilling substantially more of their commitments than BWDB or local government authorities. All the major Dutch-funded projects 'prepare O&M manuals [and] have a system of preparing annual plans which strive to define roles and responsibilities of WMOs, BWDB, and local government' (Heun and Kessler, 2016, pp. 11-12). Under the previous arrangement for registration of WMOs as co-operatives, SWAIWRPMP had facilitated 81 WMGs' preparation of a total 167 Collective Action Plans 'for the WMG to develop income generation activities' (Heun and Kessler, 2016, pp. 18-19).

The large amount of intensive local planning work outlined above generally followed the principles of IWRM, in particular those focusing on participatory approaches and the role of women. These approaches were committed to empowering poor rural people to take a stronger role in the management of their local resources and development processes. Community informants during this evaluation mission confirmed the sense of ownership, responsibility and competence that has developed through WMGs. While local politics and the differential interests of the better and worse off are constant challenges, there is a strong degree of transparency in WMGs' activities, partially supported by their links to local government structures like Union Councils.

As indicated in section 3.1.5 above, Dutch support for water management planning and implementation was part of a broader rural development effort in some programmes, such as CDSP and Blue Gold. This meant collaboration – structured through DPPs – with the Department of Agricultural Extension, whose commitment to participatory Farmer Field School approaches was well aligned with broader Dutch development paradigms. In the case of Blue Gold, however, there were complex administrative challenges around the harmonisation of DPPs with the BWDB and the DAE, inhibiting smooth implementation of the full programme at field level.

At this local level, during project implementation periods, the water management plans developed with Dutch support were implemented, significantly enhancing – though not completely assuring – water safety and water security. The challenge, linked to that of institutional maintenance discussed above, was of sustaining the implementation of these plans beyond the period of project presence. The fact that successive projects often had to revisit the work done by earlier projects suggests that the longer-term viability of local water management plans was poor. This was not necessarily due to poor planning. It arose from the broader challenges of institutional sustainability at national as well as local levels, linked to the lack of adequate recurrent funding for maintenance.

3.2.6 Water management planning and implementation at delta level

The Bangladesh Delta Plan 2100

Discussion of Netherlands support to water management planning at delta level in Bangladesh will focus on a special case study for this evaluation, the Bangladesh Delta Plan 2100; although there are other instances of Dutch assistance that also deserve attention.

As noted in section 3.1.1, the EKN's MASPs through the review period repeatedly referred to the intention to maintain the high profile of the Netherlands in the Bangladesh water sector, and the MASP for 2012-2015 reported the 'strong political signal' issued by the Prime Minister's call for Netherlands support in developing a BDP.

The first EQ to address in terms of effectiveness is whether Dutch support contributed to approved water management plans. This looks like a simple question. The simple answer is that, at towards the end of the review period, work on preparing the BDP was ongoing. At the time of writing, conclusion of the BDP project is imminent, and approval of the final version of the plan can be expected early in 2017. The EQs about whether the plans are being implemented, and whether they are achieving their objectives of water safety and water security are therefore premature, at least in the narrow sense.

Preparation of the BDP was faithful to the principles of IWRM, to stakeholder participation, to equity and to environmental sustainability. The process was participatory and consultative. The BDP project established 25 focal points in the relevant ministries, divisions and agencies to co-ordinate consultation at the official level. Six 'hot spots' were identified around the country, such as haor and flash flood areas, the coastal zone and Barind and drought prone areas. In each of these, 'ateliers' or consultative workshops (of one or two days) were organised. About 3,000 members of the public and local officials took part in a total 125 such events (GOB, 2016a, pp. xxv, 8).

Contextual analysis during BDP preparation included an assessment of gender issues (GOB, 2016a, p. 62). Volume II of the plan discusses gender equality issues and approach in the context of climate change (GOB, 2016b, pp. 271-275). The project selection criteria that the plan proposes include 'equity and gender', and in identifying its priority sectors the plan states that 'gender mainstreaming, urbanisation and climate change shall be considered as cross-cutting issues relevant to main and other priority sectors' (GOB, 2016c, pp. 61, 258).

Plan preparation was clearly aware of the transparency challenges facing the management of public works in Bangladesh, and the plan makes numerous references for the need to build transparency in the planning and implementation of water management initiatives, in order to increase donor and investor confidence (GOB, 2016c, pp. 53-54). It links transparency to accountability and proposes a results-based monitoring and public reporting system for this purpose (GOB, 2016c, pp. 183-184).

Environmental sustainability in the face of climate change, rapid economic growth and urbanisation was a central theme for the BDP, as expressed in the 'Delta Vision' that the plan proposes:

> *Ensure long term water and food security, economic growth and environmental sustainability while effectively coping with natural disasters, climate change and other delta issues through robust, adaptive and integrated strategies, and equitable water governance* (GOB, 2016a, p. iii).

Two of the six 'Delta Goals' also focus on priorities for the natural environment:

> *Goal 3: Ensure sustainable and integrated river systems and estuaries management*
>
> *Goal 4: Conserve and preserve wetlands and ecosystems and promote their wise use* (GOB, 2016a, p. iii).

Protecting natural resources and promoting environmental sustainability were also major themes in the strategies proposed for the six 'hot spots'. For example, key principles proposed for the coastal zone included 'avoiding environmental degradation, particularly to the Sundarbans'. For Barind and drought prone areas, 'restricting environmental degradation and water quality deterioration' was one of the three key principles, while for haor and flash flood areas there was emphasis on 'maintaining sustainability of haor ecosystem and floral and faunal biodiversity' (GOB, 2016a, pp. vii-viii).

As noted, the BDP has not yet reached the implementation phase. But there has been progress with regard to the allocation of funding for that purpose. Partly through the BDP's institutional linkages with the General Economics Division in the Planning Commission, there are multiple cross-references between the BDP and the Seventh Five Year Development Plan (7FYDP), which states that 'the formulation of the Bangladesh Delta Plan-2100 and its timely implementation during the Seventh Plan will be a major long-term policy and institutional initiative for building resilience and reducing the effects of disaster … Successful development of the Delta Plan strategy for water management and management of other environmental hazards will be a major challenge for the Seventh Plan.' (GOB, 2015, pp. 19, 21). Targets for the 7FYDP include some identified by the BDP (GOB, 2015, p. 27). Most significantly, the 7FYDP includes a commitment that 'annually around 2% of GDP will be allocated to the investment programmes which will be related to 'Bangladesh Delta Plan 2100. Government will form a Delta Fund for mobilising necessary resources to implement Delta Plan' (GOB, 2015, pp. 115-116). The 7FYDP chapter on sustainable development sets out 'targets under the Delta Plan' in detail (GOB, 2015, pp. 450-452).

The BDP also attracted the attention of the World Bank, which (in 2016, after the review period) began to work on project concept notes provided by the BDP team. Some informants, however, have criticised these concept notes as uncritical quick summaries of existing project ideas, many sourced from the BWDB, that need not only more work but also a reality check as to their continued appropriateness in the context of the BDP. The Bank's active interest does suggest that funding for some BDP elements will be secured, however. Furthermore, the World Bank and the ADB are now facilitating potential support for Bangladesh from the Green Climate Fund (GOB, 2015, p. 416); the BDP proposed eight projects for possible support by the Fund (GOB, 2016b, p. 261).

Planning and implementation

Having shown that the BDP project has worked thoroughly to generate planning outputs that meet the thematic criteria with which this evaluation is concerned, we can return to the apparently simple question of whether Dutch support has contributed to approved water management plans. The question carries certain assumptions, some more obvious than others. Most obviously, an approved plan is not necessarily an implemented plan, and might therefore not be worth more than the paper it is written on (and the potentially large amounts spent on producing it). Less obvious is the binary assumption of a two-part process: first planning, then implementation. That would be the wrong assumption for the BDP. First, it was not intended as a detailed plan ready for implementation. Instead, it is just the end of the beginning. The BDP project launched a process and a planning framework that were meant to continue and evolve over the full period to 2100. It promoted ways of thinking about the socio-economic, environmental and water management challenges of Bangladesh. (In this regard, there are parallels with Dutch-funded field projects like CDSP and Blue Gold, which tackle far more than just water management.) Some informants are therefore surprised and dismayed that the Netherlands has no plans – and, reportedly, no immediately available funding – to continue with the BDP process, having invested so much in it and reinforced its strong reputation in the Bangladesh water sector. What lies ahead, or should lie ahead, for the BDP is not direct implementation of a three-volume plan, but the continuation, deepening and adaptive specification of the ideas set out so far: what one informant described as the ongoing management of uncertainty.

Thanks to the incorporation of the BDP in the 7FYDP, and the interest of the World Bank in taking some of its project concepts forward, some ideas within the BDP will probably reach the stage of project implementation. The more important aspect of 'implementation' – continuing the consultative planning process and maintaining the strengthened awareness and commitment that the BDP has advocated – will depend on continued GOB commitment, and would be made more probable by ongoing Dutch engagement.
For maximum effectiveness, such engagement should be as flexible and dynamic as the BDP is meant to be, in the dynamic natural and socio-economic environment of Bangladesh. The challenge to Dutch – or any – donor support is to adapt typically rigid project funding frameworks to this management of uncertainty.

Coastal zone water management and ICZM

Many years of Dutch support for integrated coastal zone management in Bangladesh were a significant precursor to the BDP investment. Only one small ICZM activity – an integrated coastal resources database – appears in Table 3.1 of projects supported with delegated funding during the review period. But before 2006 there was a long series of efforts to develop ICZM planning and programmes. With United Nations support, a Coastal Environment Management Plan was developed in 1987, followed by a Coastal Area Resources Development Plan in 1988. The Netherlands began to support a Bangladesh ICZM process in 1995. The GOB MWR issued a policy note on ICZM concepts and issues in 1999; this was elaborated through a joint mission of the governments of Bangladesh and the Netherlands and the World Bank, leading to an ICZM preparatory programme, supported by the Netherlands and the UK, between 2002 and 2006 (Islam, 2011, p. 4). A Programme

Development Office for ICZM, led by MWR, was set up in 2002, and a Coastal Zone Policy was adopted in 2005, followed by a Coastal Zone Strategy, with nine strategic priorities in 2006 (Islam, 2008, pp. 83, 85-86). At the start of the review period, the EKN was closing a period of technical assistance to WARPO on ICZM, having failed to find a second donor to help extend the support (EKN, 2006).

As noted in section 3.1.1, one of the goals of the EKN's 2008-2011 MASP was better livelihood development options for poor people living in the coastal zone. One of the four focus areas for this MASP in the water management sector was 'facilitation of the sub-Sector Wide Approach towards Integrated Coastal Zone Management. This programme is successful and should be continued' (EKN, 2008, p. 7). The intention was that a sub-sector wide approach document would be signed by the GOB and development partners. In 2009, the EKN and WARPO fielded an identification mission for an integrated coastal zone development programme. This proposed, *inter alia*, a three-phrase time frame for the programme (2009-2018), the establishment of an ICZM Project Co-ordination Unit in WARPO, five regional planning exercises, the absorption of ICZM responsibilities by the Climate Change Cells and Focal Points in ministries and agencies and the establishment of ICZM Platforms at divisional and district levels.

The following year, the next EKN MASP (2010-2011) said that strengthening the institutional framework for ICZM was one of its strategic goals. 'The support of EKN will focus on strengthening the institutional framework for ICZM and supporting examples of integrated planning and implementation on the ground. EKN will seek the involvement of Dutch organisations with extensive experience in this area.' One of the performance indicators was support for a new ICZM project (EKN, 2010, pp. 12-13). ICZM was not mentioned in the MASPs for 2012-2015 and 2014-2017, which instead recognised the livelihood and water management challenges in the coastal zone and pledged to help Bangladesh to address them (EKN, 2013, p. 11).

This evaluation mission was unable to find clear answers about or comprehensive analysis of the apparent eclipse of the ICZM concept and structures in Bangladesh – although many aspects of the ICZM approach live on in the CDSP. One factor may have been the World Bank's withdrawal from support to the Bangladesh water sector: there had been plans for the Netherlands and the Bank to work together on ICZM, but this became less of a priority for the Bank. Some years later, the EKN's 2009 annual report stated that 'planned initiatives [for coastal zone management] were put on hold in view of the findings of an identification mission. A more modest programme is being prepared and expected to become operational in 2010' (EKN, 2009, p. 1). That 'more modest programme' was not mentioned in subsequent reports. Investing the future of ICZM in WARPO may not, with hindsight, have been wise. As one informant put it in 2016, the ICZM concept 'had no ownership'.

> *After that project* [for Netherlands support to the ICZM process] *elapsed in 2006, core bodies* [such] *as the Inter-Ministerial Steering Committee on ICZM and the Inter-Ministerial Technical Committee ceased to convene. The National Water Resources Council (NWRC), seen as a key co-ordinating and decision-making body on ICZM had no meetings since April 2004. The planned Programme Co-ordination unit in the … WARPO has no permanent staff members and is barely functional in respect of ICZM matters.*
>
> *Clearly the institutional dimension of the ICZM process did not progress as much as the development of policies and strategies* (De Wilde, 2011, p. 10).

The BDP analyses the challenges of the coastal zone in detail; strategies to address these are central to its proposals. But it makes little direct reference to the ICZM work of earlier years. It does mention the coastal zoning undertaken by the ICZM Project under the Programme Development Office for an ICZM Plan (Mia, 2004); notes the existence of the Integrated Coastal Resources Database hosted by WARPO; and recognises that 'decision-making on coastal development requires integrated coastal zone management'. It proposes a short-term project to develop a 'Climate Smart Integrated Coastal Resource Database' and another short-term project on 'integrated coastal zone management and plan [*sic*] use planning' (GOB, 2016b, pp. 129, 135; GOB, 2016c, p. 170).

3.2.7 Transboundary water management

As explained in section 1.1, transboundary water management is the third thematic area for this evaluation, being one of the three main objectives at the core of Dutch water management for development policy between 2006 and 2016. As Table 3.1 shows, the portfolio of projects supported with delegated funding through the EKN only included one project focused on this objective. This was renamed Ecosystems for Life: A Bangladesh-India Initiative (E4L), reportedly after Indian objections to the inclusion of 'transboundary' in its initial title, Dialogue for Sustainable Management of Trans-Boundary Water Regimes in South Asia: A Bangladesh-India Initiative. One other Dutch-supported activity, the global IUCN Water and Nature Initiative (WANI) is shown in Table 3.2 as having links to E4L, but the latter's final report makes no reference to WANI and, as Table 3.2 shows, the EKN was not aware of any such connections.

EQ 20: In Bangladesh, did Dutch support contribute to strengthened institutional arrangements and formal agreements over TWM, and did these take into account global norms for international water resources?

EQ 21: Did Dutch support in Bangladesh contribute to a strengthened environment (political, institutional, infrastructure and O&M) for the implementation of TWM arrangements and agreements?

EQ 22: Did the governments of Bangladesh and other countries allocate budgets and/or take measures for the sustained implementation of TWM arrangements and agreements to which Netherlands support contributed?

EQ 23: In Bangladesh, did Dutch support for TWM enhance water safety and security?

The defining feature of E4L was that it was an initiative in Track 3 diplomacy, i.e. 'people to people' diplomacy, as opposed to Track 1 (official discussions between governments and/or intergovernmental agencies) or Track 2 ('unofficial dialogue and problem-solving activities aimed at building relationships and encouraging new thinking that can inform the official process' (UNIP, 2016)). This made it difficult for the project, in the words of EQ 20 in our evaluation matrix (Annex 2), to contribute to strengthened arrangements and formal agreements over TWM. Instead, the project focuses on shared exploration of and dialogue about TWM issues between Bangladesh and India, linking civil society groupings and knowledge institutions. Its final report described its strategies as 'joint research, dialogues, knowledge management, capacity building, engaging with research institutions, engaging with Government agencies, partnering with Universities, working with media professionals and introducing young professionals to the importance of cooperative management of shared ecosystems' (IUCN, nd, p. 8). Despite its Track 3 character, E4L did claim some influence on the two governments' thinking, by including government representatives in various dialogues and, it claimed, sharpening the focus of some intergovernmental discussions, e.g. on navigation. It also reported progress in the conservation of the hilsa fish in West Bengal (IUCN, nd, p. 22).

In a marginal sense, it can therefore be claimed that the E4L project did, in the words of our EQ 22 (Annex 2), lead the governments of Bangladesh and its neighbour to allocate budgets and/or take measures for the sustained implementation of TWM arrangements. But substantive action and progress remained dependent on Track I diplomacy, and complicated by the relationship between state and Union governments in India, between which water management authority is shared. Much therefore depended on relations between the governments of the two countries, and between Bangladesh and the Indian state of West Bengal (GOB, 2016c, p. 152). These issues were beyond the scope of the Dutch-funded project. China's management of the Brahmaputra is highly significant for Bangladesh (GOB, 2016c, p. 144), but the E4L project did not involve any dialogue with China.

Similarly, it cannot be said that Dutch support for TWM through E4L directly enhanced water safety and security. Through Track 3 efforts that informants generally regarded as competent and useful, the project did contribute to a strengthened environment – at least at civil society level – for the implementation of TWM arrangements and agreements. An external review of E4L concluded that

> *the project has already made a valuable contribution to the knowledge base. It has also been catalytic in widening the thinking of the many scientists and practitioners involved in joint research studies, helping them to embrace the ecosystem-based approach to river management, as well as creating productive institutional links between Bangladesh and India that, in some cases, have already resulted in additional opportunities for cooperation beyond E4L.*
>
> *The E4L Process, by design, efficiently engaged a large number of senior civil society representatives who have direct connections to government and senior decision-makers; and who, in many cases, are also consulted with by Track II and Track I resource managers and policy-makers. These high level decision-makers have also had access to research outputs and knowledge products from E4L. Their participation in international exposure trips and conferences further served to influence Track 1 and Track II dialogues. E4L has also been commendable in recognizing and constructively engaging with media sources in both India and Bangladesh, as well as advancing grass roots outreach through the novel use of participatory filming* (Glaholt et al., 2014, p. i).

As emphasised above, however, implementation of TWM arrangements and agreements depends on developments at the Track I level. Although relations between the two countries were good and improving at the end of the review period, there had been no major developments in that regard.

The draft Bangladesh Delta Plan 2100 repeatedly emphasises the importance of transboundary issues for delta planning and management. It recognises them as one of the key challenges facing this lower riparian country. It devotes one of its five chapters on governance and institutional frameworks for delta plan implementation to regional co-operation (GOB, 2016c, pp. 143-168), but makes only very brief reference to the work of the E4L project (GOB, 2016c, p. 153). 'Delta Goal 5' as proposed by the BDP is to 'develop effective institutions and equitable governance for in-country and transboundary water resources management'. Its most specific proposals with regard to TWM are the establishment of strong co-operation for water sharing through transboundary rivers in haor and flash flood areas; and enhancing collaboration with India in the interests of enhanced inland navigation (GOB, 2016c, pp. 160, 221, 226).

3.2.8 Cross-cutting issues

Gender, environment, climate change and good governance are the priority cross-cutting policy themes with which EQs 25, 26 and 27 of this study's evaluation matrix are concerned (see Annex 2 below and section 2.3 above).

> **EQ 25:** Were environment, climate change and other priority Netherlands policy themes effectively mainstreamed in Netherlands-supported water management initiatives in Bangladesh?
>
> **EQ 26:** Did Netherlands-supported water management initiatives in Bangladesh maintain or improve water management benefits for, and levels of management participation of, women and for lower income groups?
>
> **EQ 27:** Did implementation of Netherlands water management policy in Bangladesh establish platforms for exchange of Dutch knowledge and skills and enhance the reputation, market profile and profitability of Dutch private sector engagement in the country; and did any such results simultaneously contribute to achievement of the overall objectives of the policy?

Gender

Through the mainstreaming of IWRM principles, which began before the review period and has continued to date, a degree of integration of gender and (local) good governance principles was assured – given that the commitment of the Dublin principles and of Dutch-funded water management programmes to participatory approaches was likely to enhance transparency and good governance. Participatory approaches were central to the main water management initiatives that the Netherlands supported in Bangladesh between 2006 and 2016, based on the Guidelines for PWM that had been developed earlier (section 3.1.5). SSWRSDP, CDSP III and IV, SWAIWRPMP, IPSWAM and Blue Gold all worked to enhance water governance at the local level, often improving linkages with the formal structures of local government. However, as has been noted, the effectiveness of this mainstreaming was limited by the entrenched power of local economic and political elites, meaning that sustained benefits for the poorer sectors of rural society could not often be assured. At the national level, meanwhile, Dutch institutional engagement with the water management sector dwindled during the review period (section 3.2.4) and there is little evidence of effective results from any mainstreamed commitment to good water governance. Instead, there is continued concern among informants – inevitably, the evidence remains anecdotal – about a lack of transparency in the contracting and management of water engineering works.

Of nine online survey respondents (see section 1.4) who thought the question applicable to the project they are or were associated with, six rated **performance with regard to IWRM principles on the role of women** as satisfactory or highly satisfactory. Some comments from respondents:

The project's gender approach is changing attitudes and lives. Women are members of WMO executive committees, and some have since been elected as members of local government councils... With the migration of males for better opportunities outside the polders, women-headed households are increasing – so actions are needed to deal with the feminisation of agriculture.

Our project is well known for its gender focus.

Although women were involved in the planning discussion and physical implementation, however, this is one of the challenging areas to bring relevant stakeholders including women to ensure effective use of the water.

There was a high level of women's involvement throughout.

Project installed ... deep tube wells ... according to the demand of the women members. Now the women WMG members are operating and maintaining the tube wells.

Promoting gender equality and the empowerment of women was a Dutch policy priority throughout the review period. This was well reflected in the design and implementation of water management interventions that the Netherlands supported over those years. As with the promotion of any social or institutional change, there was a temptation to tick boxes and to focus on outputs (such as the number of women trained or female members of WMGs) rather than effective mainstreaming leading to meaningful outcomes. But some significant results were achieved, not least due to the efforts of the Gender and Water Programme Bangladesh (GWAPB), funded through the EKN with a budget of EUR 2.8 million between 2013 and 2016. This programme supported six major water management projects with training, capacity building, awareness raising, networking and related activities. A recent evaluation found that it had achieved some useful outcomes but had suffered from the lack of a formal mandate – for example through a memorandum of understanding with the projects concerned. This made it harder to influence the decision-making and strategies of these projects; and the nature of the challenges being addressed would have needed much longer than the three-year duration of the GWAPB project (PEM Consult, 2016, p. 3).

One of the GWAPB's contributions was gender action planning with water management projects. IPSWAM contributed to this at the level of the BWDB, facilitating the launch of a gender strategy for the organisation that was launched in 2006; although the 2011 evaluation of the project found that BWDB had not made much progress in implementing the action plan that accompanied the strategy (EKN and BWDB, 2011, p. 26). As the MTR of

IPSWAM noted, 'The BWDB … is a very large organisation, with a skill mix oriented towards construction and an entrenched organisational culture and way of working' (Uddin and Van de Putte, 2007, p. 15).

At field level, Dutch-funded projects made significant progress in promoting the profile and roles of women in water management, as well as their economic benefits from land and water use (Sutherland and Hoque, 2010, p. 18). This evaluation mission was repeatedly told by women in FGDs that their engagement with these projects had been economically and socially beneficial for them. Projects became well versed in enumerating the numbers of female participants in their activities, and the numbers of women who gained positions in WMOs (which did not necessarily correspond to their degree of active engagement in, or influence over, WMO decision-making). CDSP was particularly praised for its promotion of women's economic, social and institutional interests, for example through its arrangements for registering new land allocations in women's names (IFAD, 2015, p. 11). Project reviews often cited the economic benefits for women, who were usually the majority in the work force provided through the Landless Contracting Societies – although these benefits were not necessarily sustained, and in at least one case, wage rates were reported to be lower for women than for men (BARD, 2009, p. 70).

The GWAPB produced an analysis of gender issues as an input to the BDP 2100 (GWAPB, 2015). The draft BDP includes equity and gender criteria in its decision support indicators and project selection criteria (GOB, 2016b, p. 25; GOB, 2016c, p. 61); in its draft of a Bangladesh Delta Act, it specifies 'gender, urbanisation and climate change' as 'cross-cutting issues relevant to main and other priority sectors' (GOB, 2016c, p. 258).

The effectiveness of this gender mainstreaming partly depends, at local level, on the sustainability of the institutions within which Dutch-supported projects promoted women's interests. However, field observation and informant opinion both confirm that there is unlikely to be any reversal of the empowerment benefits that have accrued to women through these projects. While there is no convincing evidence that the build-neglect-repair cycle has been broken for the physical infrastructure or the institutional achievements of Dutch support, the prospects of women's advancement being halted or turned back appear slight.

Support for the poorest groups

Some comments from online survey respondents (see section 1.4) about the **strongest aspects of the performance of the project** they are or were associated with:

(1) The immense impact on the economic position of the beneficiaries: household income and assets tripled since baseline… (2) Successful cooperation and its coordination of implementing government agencies and NGOs. (3) Large scale of the project.

Excellent team work involving a joint BWDB and TA team. High level of community participation.

Integrated approach – Water management, Food production/agriculture development, value chain/business development and partnership with local government and other organisations.

Executive Agency won the project and organised and formed WMOs and ensured beneficiaries participation. (Not by consultants). Consultants gave technical and institutional development advice.

While much of the GEEW effort described above was linked to efforts to benefit the poorest and most marginal sectors of rural society from enhanced water management, there can be less confidence about sustained results in this regard. The very poor and landless were the target group for employment through LCSs, and certainly enjoyed increased (but still very low) incomes in the short term as a result. CDSP achieved the strongest results for the very poor, because it was building new land tenure and livelihoods for them on a foundation of improved water management in the newly accreted chars of the south east. Elsewhere, however genuine the commitment of Dutch-funded projects to help the marginalised and the poorest, the entrenched advantages of rural elites proved hard to shift. Informants during this evaluation mission repeatedly mentioned the frustrations of trying to optimise water management and related agricultural improvements while the best-resourced residents were failing to co-operate and local institutions were unable to influence their behaviour.

Some comments from online survey respondents (see section 1.4) about the **weakest aspects of the performance of the project** they are or were associated with, as well as **constraints on performance**:

Project Management Unit (PMU) was the weakest part to handle the TA activities.
Lack of support from the Netherlands side in the final stages related to ensuring sustainability.
(Need to assess) sustainability?

(A) BWDB is not serious towards the sustainability of WMOs and insufficient coordination from EKN on this subject; (B) Project activities are suffering due to engagement of insufficient staff by BWDB for the project (though it was agreed in project contract) and EKN to peruse the issue; (C) Insufficient fund allocation per unit area, low/no attention on climate resilient infrastructure in polders.

The delay in non-structural components, specifically community-based flood risk management. The inflexibility of government funding mechanisms (for pre-defined items of work) in a participatory project – which requires that community consultations influence the scope of interventions.

Shortage of manpower of BWDB in HQ and field ... Shifting decision/policy in registration of WMOs.

(1) Transferring registration of WMGs from Cooperatives Department to BWDB, who are insufficiently staffed was a bad idea, and it does not work; (2) Insufficient staffing of BWDB is a problem anyway as far as the participatory approach is concerned.

Weak decision making of the implementing agency.

As noted above, the concept of management participation requires critical assessment. Numerical representation on governance structures of women, or indeed of previously excluded groups of either gender, does not necessarily mean adequate influence in those structures. Such people may lack the confidence to speak, express strong views or assert leadership. Furthermore, even if they do and their management participation is optimal, the effectiveness of that participation may be constrained by the limits on local governance just described.

Promoting the role and interests of the Dutch water sector

A different cross-cutting concern for this evaluation is whether the implementation of Netherlands policy established platforms and built a higher profile for Dutch knowledge, skills and enterprise. Did aid stimulate trade in ways that benefited the Dutch water sector? At least as important, did any such trade support the achievement of aid objectives?

Evidence from informants and review of available documentation suggests a largely negative answer to both questions. Bangladesh is not an easy place for foreign firms to do business – especially those from distant commercial environments like the Netherlands, which may, *inter alia*, be concerned about the governance conditions for tenders and contracts. Nor are there many obvious commercial opportunities for the Dutch water sector in Bangladesh. A three-year collaboration between the MFA and Nijenrode Business University to build the aid to trade agenda with Bangladesh achieved only limited results. The opportunities for support through funds managed by RVO have been limited. As shown above, many of those that were taken achieved unconvincing results. The FDW attracted no applications for the country during its first and second rounds. Some of the schemes are complex, and application procedures make their use in Bangladesh unlikely. One exception to this commercially unattractive scenario is the dredging business – of waterways rather than urban drainage channels. There, some Dutch firms have well-established and profitable links with clients in Bangladesh. Those links are not heavily dependent on GON support.

During the period under review, the reputation of Dutch water expertise, and of the knowledge institutions in the Netherlands that sustain it, continued to be strong. Outside the dredging field just mentioned, the most important commercial opportunities developed by the programme of aid to water management were for consultancy firms. Some informants believe that Dutch water consultants are doing more business in Bangladesh than ever before, despite the strong skills base that now exists within the country. The presence of this highly qualified technical capacity certainly contributed to achievement of

the overall objectives of Netherlands aid policy for improved water management. At the same time, it posed risks to the Dutch reputation. Was this aid for trade, creating more commercial opportunities for Netherlands consultants? There was clearly potential for such allegations. Some informants make unfavourable comparisons between the SWAIWRPMP and Blue Gold projects, for example, arguing that the former's stronger engagement of local expertise, and deeper integration with BWDB, was a more sustainable arrangement than the latter's heavy dependence on an external consultancy team. Arrangements for the BDP 2100 project also attracted criticism because of the sub-optimal ways in which local and external consultancy expertise was deployed and co-ordinated.

Two areas of inadequate co-ordination thus constrained the optimal promotion of Dutch expertise and capacity in Bangladesh water management. First, as noted earlier, the growing number of mechanisms and instruments through which such expertise and capacity could be delivered from the Netherlands was reported by informants in Dhaka to confuse many stakeholders, both there and in Dhaka. The exact structure of responsibility, roles and lines of communication was not defined clearly enough. Secondly, the ways in which Dutch expertise was combined with local capacity in Bangladesh sometimes confused both groups of stakeholders and in some cases proved unsatisfactory to most of them. Spanning both problems was the reality, as mentioned above, that outside consulting and research, the Bangladesh water sector was not commercially attractive to its Dutch counterpart.

3.3 Efficiency

As in sections 3.1 and 3.2 above, this discussion of efficiency seeks to answer the specific EQs on the subject that were posed by the ToR (section 1.3.2 above and Annex 2 below). With the available data and resources, it is not possible to attempt a full empirical analysis of efficiency in terms of costs and benefits, either in the conventional sense of the cost-effectiveness of outputs or in the broader sense of analysing efficiency at any or all of the levels in the logic chain (section 3.3.2). However, it is hoped that the discussion below in response to the ToR EQs on various aspects of efficiency will be useful.

3.3.1 Involvement of the Dutch water sector in Bangladesh

EQ 28: Was the Netherlands able to fulfil its role as expert, broker and diplomat in enhancing collaboration between concerned actors within the Dutch government, the Netherlands water sector and Bangladesh, and enhance complementarity and synergy of activities?

EQ 29: Did the involvement of the Dutch water sector in Bangladesh lead to information, knowledge and technologies that are relevant and useable in the Bangladesh water sector?

EQ 30: Did the involvement of the Dutch water sector in Bangladesh strengthen the commitment and activities of other donors, policy-making structures and/or implementing agencies in the Bangladesh water sector?

The first of the 'efficiency' questions in the evaluation matrix (Annex 2) continues the discussion just presented above: whether the Netherlands was able to fulfil its role as expert, broker and diplomat in enhancing collaboration between concerned actors within the Dutch government, the Netherlands water sector and Bangladesh, and enhance complementarity and synergy of activities. The evidence from informants and reviews is that this role was not optimally fulfilled. Despite the integrating intentions of the Water Mondiaal programme, the total package of potential and actual Dutch engagements was not presented or planned (notably in MASPs) as an integrated suite of support, and was not clearly understood by all stakeholders. Not surprisingly given the size of its budget compared with other funding sources (and the very limited staff resources available in Dhaka), the bilateral aid programme managed by the EKN continued to dominate the Dutch interface with water management in Bangladesh. Efforts were made by the EKN, RVO and other stakeholders to build complementarity and synergy between that programme and the far smaller interventions that could be undertaken through other mechanisms. But, partly because of the lukewarm commercial response and partly because of inadequate administrative co-ordination, the Dutch profile in the Bangladesh water sector was little altered. The country continued to be seen as a source of world class water expertise and of strong commitment to the sector, making it an attractive partner not only for the GOB but also for co-financiers, notably the ADB. This strong profile continued to be seen mainly through the long-established bilateral programme administered by the EKN.

Nine of 17 online survey respondents (section 1.4) rated the **efficiency** of the project they had been or are associated with as satisfactory or highly satisfactory. Some comments from respondents:

Efficiency could have been better if the way the TA was recruited would have been different. The commitment and the disbursement of committed funds of the Bangladeshi partner was insufficiently transparent which caused problems.

The slow progress of infrastructure rehabilitation is the main reason for not rating the overall project as satisfactory.

Budget was increased, to extend same intervention to other areas, within the available time. This may have resulted in some difficulties completing training and institutionalisation aspects.

In most respects, there is little evidence that the involvement of the Dutch water sector actually strengthened the commitment and activities of other donors, policy-making structures or implementing agencies in the Bangladesh water sector. The GOB knew it could rely on the Netherlands as a strong and, for most of the review period, a well-resourced partner for water management projects. But, at least since 2006, that did not translate into institutional reforms that enhanced the performance of national water management institutions. Even IPSWAM achieved only limited results in this regard. Policy-making structures like the National Water Resources Council remained ineffective, as did the policy co-ordinating body WARPO. While (as noted above) other funding agencies could generally see the Netherlands as a committed partner, there were fluctuations in Dutch funding commitment that sometimes affected co-financing relations, as with the World Bank over the WMIP project (World Bank, 2011, p. 6). It should be noted, of course, that development banks' motivation for engagement in the sector differs from that of bilateral donors like the Netherlands. The ADB collaborated actively with the Netherlands in the water management sector, as did IFAD towards the end of the review period in CDSP IV. The ADB and the WB also expressed interest in project concepts emerging from the BDP (section 3.2.6). But such agencies are primarily driven by their interest in making bankable development loans to governments; not by the commitment of bilateral partners in the sector.

In one respect, Dutch commitment did strengthen Bangladesh commitment to water management. Informants concur that the concept of delta planning and of related institution building originated on the Dutch side, although, through discussions, it was enthusiastically received at the highest levels in the GOB. The BDP 2100 process was a genuine instance of growing, shared commitment to integrated delta management, to be supported – it is proposed – by approximately 2% of GDP per annum (section 3.2.6 above). As intended by the 2012 Dutch policy letter to Parliament, for example, this was a real case of sharing experience and efforts in delta management. By the end of the review period, however, this sharing was still at the preliminary stage of building a conceptual framework. Its longer-term value remained to be seen. Significantly, the emerging BDP attracted interest from the World Bank, which may prove willing to fund some of the projects being proposed (section 3.2.6 above).

The portfolio under review gives ample evidence of Dutch engagement leading to relevant and useable information, knowledge and technologies for the Bangladesh water management sector. Building on the technical heritage of several decades, projects between 2006 and 2016 continued to improve water management technologies for the polders of the south and the chars of the south east, as well as enhanced water safety through cyclone shelters and other measures – notably through the EDDP and CDSP. In the latter part of the review period, a number of initiatives supported by Partners for Water introduced potentially important innovations – such as the flood early warning system piloted by Deltares. Not all proved viable or attractive to local stakeholders, however, and some promising pilots have not yet been followed up. There was innovation in other fields too, notably the Satellite for Crops concept jointly funded by PvW and the EKN and in the introduction of the 'building with nature' concept – which proved less relevant in Bangladesh than it is in the Netherlands, but which is being explored further by FRERMIP.

FRERMIP itself was a major vehicle for technical innovation in river management – although not directly by the Dutch water sector. The latter was directly involved in the Urban Dredging Demonstration Project (UDDP) in Dhaka, which introduced attractive, lower-cost technologies for clearing the capital's drainage network and reducing flood damage there. Building partly on the climate adaptation atlas funded through PvW, the BDP 2100 project introduced new systems of geographic information management for the proposed delta planning and management processes. Its 'touch table' was widely admired, although by the time of this evaluation mission questions were already arising about capacity to keep it functioning at terminals in various agencies' offices. In the field, several projects in the portfolio under review undertook Farmer Field School and other training processes to introduce enhanced crop production methods that increased food output and incomes. These included the community agricultural water management approach being piloted by Blue Gold and the improved crop water management practices promoted by FAO through the project of the same name (section 3.2.2).

3.3.2 Costs and benefits

EQ 31: What do available data show with regard to the cost per beneficiary and per unit of production benefit of Netherlands-supported water productivity activities in Bangladesh?

EQ 32: What do available data show with regard to the cost and duration of achieving key water management planning support results, compared to the cost and schedules specified in the design of these interventions?

Few empirical data are available on the costs and benefits per beneficiary and per unit of production of Netherlands-supported water productivity activities in Bangladesh. Most of the efficiency discussion in the available reviews and evaluations refers to operational considerations rather than costs and benefits (e.g. FAO, 2015, pp. 45-47). IOB's own impact evaluation of the Blue Gold project does not carry out such an assessment, but concludes that the project cannot be considered efficient because the sustainability of its results is not assured or clearly planned for. The 'validation' exercise by the ADB's evaluation department of SSWRSDP II (see Table 3.4) did review the analysis undertaken of the efficiency of the project's resource use in achieving outcomes and outputs, and queried the project completion report's upwards revision of the economic internal rate of return from 19% to 29% – but still assessed the project overall as efficient (ADB, 2014, p. 6). According to one informant, CDSP was considered a high cost intervention (at over USD 2,000 per beneficiary) but nevertheless a sound investment because of the benefits accruing to the formerly landless poor. A search of other reviews of project performance in this portfolio does not yield any cost-benefit analysis.

As with cost-benefit analysis, the evaluation team has not been able to find systematic record keeping on time and budget extensions (if any) for each project in the portfolio under review – let alone analysis of how much more time or money was needed to achieve each result compared with the original plans. As with development projects in many countries, it was common throughout the review period for Dutch-funded water management projects to be allocated longer implementation periods than originally agreed. Examples include Blue Gold, SSWRSDP II, BDP 2100, IPSWAM, Ecosystems for Life and the FAO project for Enhancing Food Security through Improved Crop Water Management Practices. While Ecosystems for Life received a budget neutral extension, the other projects just named all received budget increases too. (In the case of Blue Gold, arrangements for this were ongoing at the time of this evaluation mission, after the end of the period under review.) The Emergency Disaster Damage Rehabilitation Project experienced significant cost overruns, but available data do not show whether there was a budget extension too. CDSP IV was scheduled differently by the EKN and by IFAD, necessitating an adjustment by the former. Reasons for time and budget extensions were sometimes linked to unrealistic planning, as in the case of Blue Gold, and sometimes to implementation difficulties, often related to institutional problems with one or more host agencies in Bangladesh. In the case of IPSWAM, major cyclone damage necessitated additional time and expenditure.

As indicated, the inexact scheduling and budgeting of Dutch-funded water management projects in Bangladesh are not unusual in international development experience. That does not necessarily excuse unduly optimistic planning or the generally low levels of attention and explanation observed in project documentation with regard to inefficient operational performance. Due partly to a lack of capacity, the MFA did not analyse these weaknesses, or act on them, as proactively as it should. MFA planners and managers in The Hague and Dhaka should have been more critical and proactive in identifying and explaining slow performance and asking whether it was realistic, or the best use of resources, to continue funding similar operations without a fundamental reappraisal of institutional will, institutional capacity and the potential for institutional change in the relevant Bangladesh agencies.

An even more significant issue is the fact that so much Dutch investment during the review period was in water management infrastructure (and sometimes institutions) that had been funded at least once before, and subsequently not maintained. The build-neglect-repair cycle was tolerated. The evaluation question to which this discussion offers an inadequate response assumes that a development activity may take longer or cost more to achieve than was first expected. It does not take into account the reality that those inefficient expenditures may be repeated, possibly more than once, as the cycle continues.

4 Main findings

As explained in section 1.3 above, the presentation of the main findings from this country case study refers to the implicit theory of change that underlay Dutch support for water management in Bangladesh during the review period (Figure 1.1). Testing the accuracy of the assumptions made in the ToC supports an overall assessment of the quality of design and implementation over those ten years. The discussion presented below thus answers EQs 12, 19, 24 and 33 in the evaluation matrix (Annex 2).

4.1 Dutch assistance to water management in Bangladesh: challenges and contribution

The rationale for Netherlands assistance to water management in Bangladesh was rooted in decades of Dutch commitment to helping the people of that originally very poor nation to build sustainable livelihoods and a higher standard of living. Part of this commitment was a perception of similarities between the environmental and water management challenges faced by the two delta nations, and a belief that the achievement of water safety and water security was fundamental to sustainable development overall.

Policy statements at country level were expressed through the MASPs of the EKN, which closely reflected the global policy directions of the MFA. Two major policy themes received less explicit emphasis, possibly because they were already fully mainstreamed in Dutch policy by 2006. These were the concept of IWRM and, within that, the commitment to participatory approaches. The Netherlands' commitment to these two themes was manifest throughout the portfolio under review.

The three broad policy objectives of Dutch support to water management in developing countries are not the most useful way of categorising the various projects in the Bangladesh portfolio. In fact, 'water management' is too narrow a way of describing many of these projects, which built a much broader range of rural and agrarian development activities on a foundation of enhanced water safety and security. In the process, as the ToC points out, it was inevitably necessary to assume that project efforts would not be significantly hindered by natural disasters. Almost inevitably, this assumption was not fully correct.

The increasing Dutch policy emphasis on building trade relations with developing country partners was underpinned in Bangladesh by the assumption that such a strategy was relevant and could be effective for achieving, *inter alia*, the objectives of water management interventions. The conclusion by the end of the review period was that this was far from straightforward and that this global policy direction required, at the very least, careful adjustment to specific country circumstances. More generally, it may be that the various potential combinations of aid and trade in the Netherlands' international engagements need further exploration and explanation in a global restatement of that policy.

The challenge now is how best to sustain the Netherlands' valued contribution as policy and funding opportunities evolve further in The Hague. This is a time for transition and change. It is not a time for exit. In Bangladesh, the Netherlands is still a much-needed partner in

tackling environmental and development challenges that remain immense, and are exacerbated by climate change. Poverty and environmental vulnerability are still severe for millions of Bangladeshis. Whatever doubts there may be about the performance of Dutch aid policy for water management to date (as summarised below), exit would be the wrong conclusion. Instead, the Netherlands should plan an evolving profile and role as the best water management partner that Bangladesh has.

4.2 Effectiveness

A core argument of this study is that full effectiveness – the achievement of genuinely meaningful outcomes – demands the achievement of sustained positive results. Any other kind of 'effectiveness' is of limited value. During the review period, Dutch support for local level water management planning was 'effective', leading (in general) to technically effective construction or rehabilitation of water management infrastructure. However, governance challenges jeopardised this achievement. So, more fundamentally, did the lack of assurance about maintenance and consequent long-term viability. Netherlands-supported programmes were effective in achieving short- to mid-term livelihood benefits for the rural poor, including institutional capacity and social empowerment. But the growing threats of climate change, and the same doubts about maintenance and long-term viability, diminished the value of these achievements, however important they were in the short to medium term.

Similarly, strong immediate outcomes were realised in local institutional development, but the failure to provide convincingly for institutional maintenance weakened any confidence that these WMOs would function in the longer term. At the national level, the conclusion is more immediately negative. Dutch support during this period was not effective in building the long-term capacity of national water management institutions, or even sustaining it in the short term. It is too soon to say whether support for delta level planning in its current format – the BDP 2100 – has been effective. As explained below, effective results in this field will require a fundamental shift in understanding of the delta planning concept. They will also require careful learning of the lessons offered by previous support for ICZM. In the field of transboundary water management, the limited Dutch support during the review period was effective at the selected Track III level. The value of this achievement was limited by the lack of comparable progress at Track I and II levels.

In keeping with a global Dutch policy emphasis dating from well before 2006, support to water management in Bangladesh emphasised participatory approaches. Major effort was devoted to local institutional development for this purpose (sometimes rebuilding WMOs that earlier projects had helped establish). The ToC assumption that water users do contribute significantly to the management and maintenance of water infrastructure proved largely true at this local level, at least during periods of project presence. Insufficient provision for institutional maintenance meant that it was less true after projects had closed. A related ToC assumption was that participatory approaches could effectively combine the interests of the poor and the better off, so that the latter would support, not obstruct, the

work of WMOs. As in most global experience with common property resource management, that assumption was weak. In many cases, rural elites did not participate and protected their own interests, so that the effectiveness and benefits of water management were sub-optimal.

At a broad technical level, the ToC for Dutch support to water management in Bangladesh assumed that the paradigms and approaches promoted by the Netherlands were relevant and appropriate, and that the techniques used were feasible, practical and affordable in Bangladesh conditions. From one perspective, these assumptions were correct. The IWRM principles to which Dutch support adhered were appropriate. Like earlier interventions, the projects in this ten-year portfolio continued to show that participatory approaches emphasising GEEW and the interests of the very poor and marginalised could work. Again building on past experience and Dutch global expertise, the water engineering methods applied were shown to work too – although innovation continued in projects like FRERMIP and the UDDP.

From another perspective, however, these assumptions were inadequate. Appropriate approaches and techniques have to be implemented within a political and institutional framework that delivers the domestic commitment and resources to maintain what temporary external support develops. The findings of this study are that there was inadequate provision for institutional maintenance at the local level; and that the extent and effectiveness of Dutch support for institutional reform and development at national level – particularly in the BWDB – dwindled over the review period, with insufficient analysis of the issues and interests involved. ToC assumption 5 was that 'there is political will at the various necessary levels for Netherlands-supported policy and institutional initiatives to be converted into meaningful action'. This was true at the highest levels in the GOB with regard to major planning action through the BDP 2100 initiative. It was less true at the working levels of building an effective BWDB or ensuring that WMOs would be sustained in the long term. By the same token, the related ToC assumption, that the quality and transparency of Bangladeshi water management institutions could be significantly improved, proved correct in the short term at local level. But at national level, there was no evidence that the relevant institutions were significantly stronger at the end of 2016 than they had been at the start of 2006.

A related ToC assumption was that planning leads to action. This country study found that, at local level, the implementation of projects like the SSWRSDP, IPSWAM, CDSP and Blue Gold did lead, at least in the short term, to water management action. Predictably, the issue was more complex at larger scales, and dominated in this review period by work towards the Bangladesh Delta Plan 2100, which was still in preparation at the end of 2015. In that regard, two issues were becoming clear in 2016. First, enough had been achieved for the GOB to be willing to commit in its Seventh Five-Year Development Plan to spend about 2% of GDP each year on BDP-related programmes. But, secondly, the usual questions could be asked about how much of this or any five-year development plan would be adequately resourced and effectively implemented.

More important than either question, however, was realisation of the need to be clearer about what planning is, and specifically what the BDP 2100 is. It is too simplistic to make a binary distinction between planning and implementation. For complex challenges like delta management, planning must be the ongoing, adaptive management of uncertainty. Expectations among some stakeholders that completion of the BDP 2100 should just be followed by an implementation programme were wrong. Instead, as argued by BDP staff themselves, the completion of the current exercise should be seen as the end of the beginning – the start of a much longer-term process of more detailed planning, implementation and further planning over years and decades to come, all within an ongoing effort to strengthen the responsible institutions at national level.

Global Dutch policy on support to water management reflected the status of the Netherlands at the bottom end of international river systems. This was naturally reflected in the EKN's strategy in Bangladesh, although only one transboundary water management project resulted. The ToC assumption that TWM was politically and institutionally feasible was not adequately reflected in the design of the Ecosystems for Life project with IUCN at the Track III level only. Track I issues immediately arose with Indian government objections to the reference in the project's original name to transboundary work. While doing useful work at the Track III level, E4L was not equipped or expected to address the fundamental political and institutional issues and thus did not test this ToC assumption. Despite a generally good climate between Bangladesh and India, developments in transboundary water management relations during the review period did not confirm that the assumption was true.

Netherlands policy emphasis on the cross-cutting issues of gender, environment, climate change and good governance was well reflected in the Bangladesh water management portfolio under review. Projects' experience with promoting GEEW raised familiar issues about how meaningful women's institutional participation was, and whether projects substituted the token ticking of output boxes about numbers of women involved for the achievement of effective gender outcomes. But the study finds that, however real those concerns might be, Netherlands-supported water management projects were genuinely effective in the long-term sense outlined above. They helped rural Bangladeshi women to achieve social, institutional and economic advantages that are unlikely to be reversed. These projects' commitment to the very poor and marginalised was equally real, most notably in the CDSP. In this case, however, there could be less confidence about the scale and sustainability of the advances achieved, given these projects' inability to diminish the entrenched power of rural elites.

4.3 Efficiency

A key trend in Dutch policy, again reflected in programming for Bangladesh, was the growing policy emphasis on engaging the whole Netherlands water sector in water management support to Bangladesh, and thereby strengthening the commercial opportunities for Dutch businesses in this field. The ToC assumption that this private sector

engagement was relevant and could be effective proved to be weak. Dutch consulting firms continued to play a major (and presumably profitable) role. Overall, however, Dutch policy was not effective in establishing platforms and building a higher profile for Dutch knowledge, skills and enterprise. With the exception of some big dredging businesses, the Netherlands private sector showed limited interest in the difficult business environment of Bangladesh.

To fulfil the policy emphasis on broader engagement of the Netherlands water sector, a larger number of Dutch agencies and stakeholders were given roles through an expanded suite of instruments, facilities and mechanisms, alongside the established structures for bilateral aid through the MFA. The ToC assumption that this suite of methods and tools were relevant, complementary, effective and efficient was invalid. A wide range of valuable work was done. But the proliferation of activities, systems and procedures proved more confusing than synergistic. In the context of the Bangladesh water management sector, the value added was marginal. A related concern is that the links between and co-ordination of centrally funded activities and those funded through the EKN were, overall, weak and incomplete – with some of the centrally funded activities poorly known and/or considered of limited relevance in Dhaka.

While routine reporting of activities in this ten-year portfolio was generally systematic, the approach to evaluation was less consistent. Little of the evaluation documentation focuses on a core characteristic of the project cycle in Dutch support to water management in Bangladesh: the return of new projects to areas, infrastructure and institutions that previous projects had worked on. This cycle of 'build-neglect-repair' was insufficiently recognised, as was the failure of the GOB to fund recurrent maintenance adequately. The GOB has typically turned to development budgets – including those of Dutch-supported projects – to meet recurrent costs. CDSP Phase IV, for example, continued to fund the technical and institutional maintenance of water management systems developed by Phases I, II and III.

It hardly takes a theory of change to see a major assumption underlying Dutch support for water management in countries like Bangladesh: that Dutch expertise is worth using, can add value, and can meet needs that local capacity is not equipped to tackle. In practice, of course, it is not always true. Some informants criticised Bangladeshi water engineering expertise as outdated and conventional, but there is little doubt that, with the help of decades of Dutch training, the country is now largely equipped to handle water management on its own. This study found a majority view that Dutch technical inputs remain valuable, but that their quality should not be taken for granted.

A bigger ToC assumption is that those inputs can be structured to be complementary to local capacity. Synergy should be achieved. This was less often the case. Project teams achieved uneven success in integrating local and expatriate capacity and in building authority relationships that strengthened domestic institutions while ensuring adequate rates of technical performance. At the end of the review period there was a significant contrast between the two major ongoing field projects that were building agrarian

development on a foundation of enhanced water management. CDSP IV (a phase managed by IFAD) had relatively little expatriate input, and had formal working relationships with six government departments. Blue Gold, on the other hand, had probably the largest consultant team of any project in this 11-year portfolio – not all expatriate – and was criticised in some quarters for not engaging adequately with GOB agencies. The key conclusion is that Dutch water management policy had not succeeded in supporting adequate institutional development within the GOB between 2006 and 2016, so that conventional projects with large consultant teams were still seen to be necessary. The prospects of sustainability were not improved.

Like most development work everywhere, this portfolio of water management activities was not monitored or reported to generate data on which thorough analysis of efficiency could be based. Mid-term reviews and evaluations often commented on operational efficiency, but this was usually on the basis of reviewers' professional judgement rather than empirical analysis. This country study was therefore unable to offer a detailed discussion of the efficiency of the portfolio. In answering the relevant evaluation questions, it concludes that the Netherlands was not effective as expert, broker and diplomat in enhancing collaboration between concerned actors within the Dutch government, the Netherlands water sector and Bangladesh, and enhancing complementarity and synergy of activities. This was despite the clear ongoing technical competence and strength of many of the contributions by the Dutch water sector. As in much development management around the world, project time and budget extensions were common, signalling inadequate operational efficiency in many cases. This inefficiency was compounded by inadequate analytical or management attention by the EKN and others to the weaknesses that caused it. The risk remained that a continuing cycle of projects would continue the cycle of build, neglect and repair.

Despite the lack of empirical analysis of efficiency, the study did identify a fundamental assumption about it, which is made in both Bangladesh and the Netherlands. This is that the levels of subsidy inherent in securing millions of livelihoods in such environmentally vulnerable deltas are acceptable. It is hardly surprising that this assumption has not been empirically assessed. Neither country has an alternative. Water safety and security have to be assured. The challenges are both demographically and environmentally more severe in Bangladesh than in the Netherlands. It does mean that another assumption – not shown in our ToC – is correct. This is that it does make sense for the Netherlands to work with Bangladesh to tackle its huge water management challenges. Despite budget reductions and inevitable difficulties and shortcomings in project implementation, this country study found that there is still a strong respect in Bangladesh for Dutch water management capacity and commitment.

5

Recommendations

The primary purpose of this country study is to support IOB's overall evaluation of Dutch aid policy for improved water management – not to make comprehensive or authoritative recommendations about the development of support to water management in Bangladesh. However, drawing on the contextual analysis and findings set out above, a number of suggestions can be made about how to shape that support in the years ahead. They are made against the background of likely reductions in Dutch development assistance budgets (possibly exceeding 20%) and on the assumption that Bangladesh continues its economic development towards middle-income status.

Policy effectiveness

1) Develop a transition strategy – not an exit strategy – that focuses more effectively on sustainability.
The Netherlands and Bangladesh should explicitly recognise that the era of bilaterally funded water management projects is coming to a close. Over several decades, those projects have achieved much and have shown many shortcomings, some of them structural and unresolved. The two governments should therefore develop a transition strategy – not an exit strategy – that focuses on optimising the learning from those decades of project experience, and especially from the projects that will be closed over the coming years. That strategy should also focus better than projects traditionally have done on sustainability, which means local institutional maintenance as well as technical maintenance. A carefully designed and thoroughly implemented strategy of this nature is essential to secure the value of the large investments that the Netherlands made in water management projects. Whether multilateral agencies with which the Netherlands has co-operated, such as the ADB, continue with the conventional project modality remains to be seen; the Netherlands will presumably cease its co-financing of such activities.

2) Reinforce Dutch training and knowledge development support to the Bangladesh water management sector.
Over several decades, the Netherlands has made a greatly valued contribution to Bangladesh water management – and to its own profile in the country – by training many water engineers and other specialists. These Dutch graduates now occupy senior positions in the Bangladesh water sector, but many will retire from the service soon. The Netherlands should rebuild its water management training support to Bangladesh, possibly through new collaborative programmes for in-country presence and training by Dutch institutions. The value of this 'soft power' approach to relations with Bangladesh should not be underestimated.

3) Support a three-year transitional programme to build on the initial BDP 2100 achievements.
Although the application of Dutch concepts of delta planning and delta management in Bangladesh has been rightly criticised as inadequately adjusted to local realities and not optimally related to local institutional structures, the BDP 2100 project was an important and necessary step forward – even though, this study argues, its character has been widely misunderstood. The Netherlands should give priority to further support to follow up on the frameworks, concepts and priorities that the initial BDP outputs have developed, through a transitional programme of a further three years that clarifies and confirms the institutional

arrangements for detailed planning, resourcing and management of adaptive delta management actions.

4) Explore the political will to transform the BWDB. If it is there, support it. If it is lacking, recognise that the impact of the huge Dutch contribution to water management in Bangladesh will be limited.

The Netherlands faces a stark choice as it prepares to move out of conventional development assistance into a new mode of relations with Bangladesh. The sustainability of much of what was achieved in water management during the review period, and over decades before that, is still far from assured. This is because Dutch assistance did not result in the good institutional governance and competent institutional structures, from Dhaka to field level, that sustainable water management requires. The Netherlands can now accept that the institutional prerequisites have not been put in place, and that much of its investment will therefore have limited long-term value. Or, it can commit once again to working with the GOB to achieve what is needed. This study recommends the latter choice – if the GOB makes an adequate and credible commitment to commit the required political will and recurrent resourcing.

If that precondition is fulfilled, and building on a decision to carry the BDP 2100 process further forward (recommendation 3), the Netherlands should undertake an intensive and realistic appraisal of the institutional development possibilities, and of what support it can give in this regard. Over and above any decisions on the BDP 2100 recommendations about a Delta Commission and a Delta Fund (GOB, 2016c), the Netherlands should consider how it can contribute to reconstituting the BWDB with transformative and proactive leadership, more efficient and effective institutional structure, appropriate performance indicators and targets, and systems for monitoring and ensuring achievement of its goals. The revised and revived BWDB would need to be provided with adequate recurrent funding and efficiently linked to local level water management structures. The GOB, the Netherlands and potentially other donors should develop a funded plan to achieve this transformation – with donor commitment again based on the precondition mentioned above. This is not a simple recommendation. But if it is not successfully implemented, much of the huge Dutch contribution to water management in Bangladesh will be lost in the medium to long term.

Policy efficiency

5) Review, rationalise and simplify modalities, funds, instruments and programming.

The Netherlands should review and rationalise its suite of modalities, funds and instruments for support to water management in Bangladesh, producing a simplified statement and institutional structure that will enhance relevance, co-ordination, efficiency and effectiveness. One of the results should be a shift by the EKN in Dhaka from the MASP, that plans only what the MFA will do, to a country plan that integrates what all the participating Netherlands ministries and agencies will do in a coherent programme that the EKN will co-ordinate and support.

6) Reappraise how and why the Dutch water sector can and will engage with Bangladesh.

Part of this review and reformatting of Dutch support should be based on a realistic reappraisal of how and why the Dutch water sector can and will engage with Bangladesh. This should recognise the limited commercial opportunities, but also recognise the value that appropriately structured Dutch technical expertise can still add, notably in the areas proposed in recommendations 2-4 above.

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Annexes

Annex 1 Extracts from the terms of reference

Theory of change

Netherlands water management policy in support of Bangladesh has never explicitly stated a theory of change (ToC). But the wording of the overall strategic goal of the 2012-2015 MASP with regard to water sums up the causal relationships that have been assumed:

> *To create a healthy living environment for sustainable economic development by improving water management related to rivers, polders and food production, by ensuring access to drinking water and sanitation facilities, through strengthening water related institutions in partnership with their Dutch counterparts* (EKN, nd, p. 15).

This brief statement shows that institutional development – in partnership with Dutch counterparts – is assumed to be the foundation for enhanced water management that, in turn, will support higher standards of living, partly through improved environmental functions.

Figure 1.1 shows a draft ToC for the implementation of the Netherlands water management policy in Bangladesh over the period under review. It takes into account the ToCs outlined in the overall ToR for the evaluation, in particular the three specific ones for water productivity, water management planning and implementation, and TWM. As is often the case when evaluators seek to identify the ToC of the programme they are reviewing, the design of that programme never specifically stated what the ToC was. It is therefore necessary to infer from the design documentation what the logic chain was and – the particular value of ToC analysis – to identify what assumptions were made about causal relationships. Covering a complex, extended set of interventions, this single ToC diagram only offers a summary presentation of design over the ten-year review period. Thus, for example, activities like dialogue, consultation, institutional development and policy development are expected to take place at multiple levels, from local water user groups to international transboundary negotiations between government authorities. Outputs and outcomes, too, may be at local, catchment, national or international scale. The arrows representing causal links from left to right across the logic chain are schematic only.

The ToC proposed retains the focus of the overall ToCs on Netherlands inputs and activities that were funded by the Netherlands, as shown in the main evaluation ToR. Unlike them, however, it also shows inputs provided from other sources. This is considered important, as a reminder that the Netherlands-funded programme was not an isolated effort and that one of the assumptions running through the ToC was that inputs by the GOB and other development partners would be available and complementary to the Dutch effort.

The country case study will refine both this draft ToC and the initial specification of assumptions set out here. The numbered assumptions link to corresponding numbers in circles on the diagram. Again, the positioning of these assumptions in the ToC is schematic

and simplified; in some cases, the assumption pervades the entire logic chain, and in others it can be placed at several positions between inputs and impact. Some of the assumptions are repeated on the diagram to indicate particular places in the logic chain where they are important, but in order to keep the diagram readable this cannot be done exhaustively.

Approach and principles

The evaluation approach will have the following main characteristics.

- Independence: the evaluation will take a neutral and unbiased approach, identifying weaknesses, problems and constraints in a constructive manner, noting successes and achievements and drawing relevant conclusions from negative and positive findings.
- Ethics: this independent study will adhere to high standards of evaluation ethics. All interviewees will be assured of confidentiality. Informant opinions will not be attributed by name in the evaluation report (although a list of persons interviewed will be annexed), and interview notes will be kept strictly confidential. All interviewees, including beneficiaries and other field informants, will be asked for their consent before the discussion proceeds.
- Gender: data will be recorded and reported by gender where feasible and relevant. All parts of the evaluation process will mainstream gender awareness and issues, so that there is a full opportunity to identify potential costs and benefits for women in the implementation of Netherlands water management policy in Bangladesh.
- Beneficiary participation: beneficiaries of the programmes under review include poor rural water and land users as well as national and local policy makers, administrators and technical specialists. Although there will be limited scope during the field mission for direct interaction with beneficiaries in rural areas, every effort will be made to include the views of Bangladeshi beneficiaries in the evaluation findings, either from direct discussions with them or from reports on other consultations with them.
- Triangulation: wherever possible, the evaluation will use two or more sources in order to cross-check, verify and substantiate its findings.

Methods

The study will be guided in answering the evaluation questions by the reconstructed, implicit theory of change shown in Figure 1. At the heart of this theory-based analytical method is the testing of design assumptions about the causal relationships between inputs, activities and results. The outcome of this analysis will be findings and conclusions about the appropriateness of design. If these are positive, extraneous factors must be identified to explain any shortfalls in achievement of objectives. Alternatively, some of the design assumptions may be found to have been inaccurate, suggesting lessons about more realistic ways to shape Netherlands support in order to achieve the desired results.

This will be a mixed methods evaluation.

- Quantitative data will be sought and used, to the extent possible, to establish basic statistics about the portfolio under review: for example, costs, (under) expenditure, disbursement rates, beneficiary numbers and efficiency variables (see EQs 31 and 32). Limited time and resources will be available for the interrogation and analysis of EKN, MFA and other databases for this purpose. To the extent possible and appropriate, existing quantitative analysis will be sourced and incorporated in the evaluation.
- Extensive use has already been made of MFA and other databases on the portfolio under review, showing the numerous activities funded from various sources and implemented by various agencies over the ten-year period.
- Much further effort will be devoted to assessing the character and performance of these activities. Review of the available documentation will be a major part of the evaluation process: studying design, monitoring, progress, completion and (where they exist) evaluation reports on each activity, along with the broader literature on water management challenges and achievements in Bangladesh and the Netherlands contribution in this area.
- Information and opinions obtained from informants will be an essential complement to, and cross-check against, findings from data and documentation. As emphasised above, the evaluation will make an effort to learn the opinions of programme beneficiaries at all levels, as well as interviewing the conventional 'key informants' at the offices of various ministries and agencies in Dhaka. Semi-structured interview techniques, using pre-prepared interview schedules, will be used for this purpose. The evaluation matrix refers repeatedly to the conventional 'key informants', who will include:
  - staff of the MFA and other ministries and agencies (such as RVO and the Netherlands Water Partnership) in the Netherlands;
  - experts on the Bangladesh water management sector, and on Dutch support for that sector, in the Netherlands, Bangladesh and elsewhere – including academics, consultants and staff of research institutions and NGOs;
  - staff of the EKN in Dhaka;
  - staff of the relevant ministries and agencies in Bangladesh, primarily in Dhaka but to the extent possible also at field level;
  - development partner personnel in Bangladesh – bilateral and multilateral donor organisations, and relevant national and international NGOs such as BRAC and WaterAid.

For optimum application of the methods outlined above, the evaluation team will undertake a short field mission as part of its visit to Bangladesh. With a likely maximum duration of seven days, the field mission will only be able to meet a very small fraction of the many participants and beneficiaries of the programmes under review. Some direct field observation, interviews and focus group discussions at beneficiary level will nevertheless add quality and insight to the evaluation findings and conclusions. With the support of field staff, separate focus group discussions will be held with women and men to determine their views of water management issues, the factors affecting progress and the effects to date on their food security and livelihoods.

As outlined in the overall ToR for the evaluation (IOB, 2016), a number of in-depth studies form part of the exercise. Two of these concern water management activities in Bangladesh.

- An impact study of the **Blue Gold** project is currently under way, as part of a larger IOB impact evaluation of food security interventions. To complement basic household surveys of trends in food security in project areas and a more detailed investigation of water management organisations (WMOs), the impact study includes a qualitative study of institutional issues in water management as addressed by the project. Findings and conclusions relevant to the EQs posed for this country study will be identified from the reporting on the Blue Gold impact study. The food security impact study also includes some attention to the Char Development and Settlement Project (CDSP). the South West Area Integrated Water Resources Planning and Management Project (SWAIWRPMP) and the Irrigation Support project being carried out with FAO. Available findings and conclusions from the impact study on these activities will be reviewed as potential inputs to this country case study.
- The evaluation team will undertake a focused review of the **Bangladesh Delta Plan 2100**. As the apex of current Netherlands support to water management planning in the country, this activity is expected to yield important insights into current Dutch and Bangladeshi approaches in this sub-sector; to serve as a focused test of the implicit theory of change derived above for Netherlands support to water management in Bangladesh over the whole review period; and to show the extent to which lessons have been learned and approaches adapted on the basis of earlier experience. In reviewing the BDP 2100, the evaluation team will apply the EQs that are relevant [see Annex 2]. With regard to the policy cycle, these are questions 1, 2, 4, 5, and 6. With regard to water management plans, EQs 14, 15 and 19 will be of particular interest. EQs 25 and 27 will also be asked with special reference to the BDP 2100. With regard to efficiency, EQs 28, 29, 30 and 33 will be the focus. Throughout the focused review of the BDP 2100, the evaluation will acknowledge that the current project is only the early stage of work that is likely to span many decades, through a process that will be expected to evolve and adapt over time. Experience to date with the BDP 2100 will, nevertheless, be instructive.

Organisation and planning

Team

The team for this country case study will comprise:

- the IOB evaluator with overall responsibility for the water management policy evaluation;
- the international consultant to IOB with responsibility for the three country case studies (lead author for the Bangladesh country case study report);
- a local consultant with expert knowledge of water management in Bangladesh;
- the IOB researcher providing documentary and analytical support services (desk based in The Hague, not visiting Bangladesh).

Schedule

The proposed schedule for the evaluation is as follows.

Table I.1 Bangladesh country case study schedule

Activity	Date
Data and document review	25 July - 13 October 2016
Evaluation mission, Bangladesh:	16 October - 3 November
Briefing meeting, EKN, Dhaka	16 October
Interviews, data and document collection, Dhaka	16 - 20 October
Travel to field	22 October
Field visits, interviews, focus group discussions	23 - 27 October
Return to Dhaka	28 October
Further interviews, data and document collection, Dhaka	30 October - 2 November
Debriefing presentation, EKN, Dhaka	3 November
Draft report preparation	November
Draft report submission	1 December
Review of draft report, comments to evaluation team	1 - 16 December
Report revision	17 December - 8 January 2017
Final country case study report	January

Annex 2 Evaluation matrix

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
Policy cycle			
1. What was the rationale for Netherlands assistance to water management in Bangladesh?	• Analysis of Bangladesh social, economic, environmental, institutional context; • Analysis of Netherlands - Bangladesh relations; • Analysis of Netherlands water policy (global and for Bangladesh) before and during review period.	• General literature on Bangladesh economy, society, environment, water sector; • Literature on history of Netherlands - Bangladesh relations; • Documentation on Netherlands water policy; • Key informants.	• Document review; • Interviews.
2. To what extent, and how, was evolving Dutch water management policy reflected in engagements with Bangladesh?	• Analysis of Netherlands policy; • Analysis of EKN Dhaka MASPs; • Analysis of project design, implementation, evaluation reports; • Review of conformity/ adaptation/divergence.	• Netherlands policy documents; • EKN Dhaka MASPs; • Project documents, including evaluation reports where available; • Key informants.	• Document review; • Interviews.
3. Did Dutch support for water management in Bangladesh achieve an appropriate balance between water productivity and water security and safety initiatives?	• Analysis of Bangladesh context; • Analysis of EKN Dhaka MASPs; • Analysis of project design, implementation, evaluation reports; • Review of key informant opinion; • Determination whether balance of effort matched needs in the respective intervention areas.	• General literature on water management issues in Bangladesh; • EKN Dhaka MASPs; • Project documents, including evaluation reports where available; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
4. What modalities, instruments and mechanisms did the Netherlands use in support to water management in Bangladesh?	• Analysis of intervention design, implementation, evaluation reports across all modalities, instruments and mechanisms; • Check against full suite of intervention tools available through the review period.	• Project and other intervention documents; • Key informants.	• Document review; • Interviews.
5. What were Netherlands expenditures on water management activities in Bangladesh, by year, by targeted geographic area (if applicable), by policy objective and by channel? What proportion of the expenditures was spent on contracts with Dutch water sector stakeholders?	• Analysis of EKN, DGIS and other central databases, including those for programmes managed by RVO.	• EKN, DGIS, RVO and (if relevant) other databases.	• Collection of expenditure data from the various official sources.
6. How has Dutch support for water management in Bangladesh been monitored and evaluated? What evaluations are available, and what are the main issues and lessons that they report?	• Analysis of M&E approach and resultant data and evaluation reports for each intervention; • Overall review of M&E methods and systems to identify adequacy and lessons learned about optimum M&E approaches for the sector; • Check for lessons reported on most effective approaches, modalities and instruments; • Check for lessons reported on the elements and assumptions of the implicit ToC.	• Monitoring and evaluation documentation on each intervention in the portfolio; • Water management planning documentation (to check whether it reflects M&E findings); • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
Effectiveness			
Water productivity			
7. Did Dutch support contribute to an enhanced water management regime (appropriate infrastructure, technically appropriate and sustainable operating systems and durable local institutions) for crop production in Bangladesh?	• Analysis of quality and efficiency of infrastructure in programme areas, assessed against period of operation; • Analysis of levels of participation by women and men and of management effectiveness of local water management institutions, over what period; • Review of key informant opinion; • Review of female and male beneficiary opinion.	• Monitoring and progress reports from Netherlands-funded activities; • (Reported) opinions of intended beneficiaries; • Key informants.	• Document review; • Interviews; • Focus group discussions.
8. Did Netherlands support to an enhanced agricultural water management regime contribute to increased agricultural productivity in Bangladesh?	• Analysis of agricultural yield data in areas where water management funded by Netherlands-funded interventions; • Review of key informant opinion; • Review of female and male beneficiary opinion.	• Monitoring and progress reports from Netherlands-funded activities; • (Reported) opinions of intended beneficiaries; • Key informants.	• Document review; • Interviews; • Focus group discussions.
9. In Bangladesh, did Dutch support enhance the national and local institutional environment for and capacity of WUAs for participatory operation and maintenance (O&M) of water infrastructure?	• Review available analysis of institutional issues in Bangladesh water management; • Review of key informant opinion; • Review of female and male beneficiary opinion.	• Analytical literature on institutional issues; • (Reported) opinions of intended beneficiaries; • Key informants.	• Document review; • Interviews; • Focus group discussions.
10. In Bangladesh, did Netherlands support augment the abilities of individual farmers to use representation, knowledge and skills to improve their access to well-drained land and their on-farm (water) management?	• Review available analysis of institutional issues in Bangladesh agricultural water management; • Review of key informant opinion; • Review of female and male beneficiary opinion.	• Analytical literature on institutional issues; • (Reported) opinions of intended beneficiaries; • Key informants.	• Document review; • Interviews; • Focus group discussions.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
11. In Bangladesh, did farmers pay for WUA services and did WUAs account transparently for income and expenditures?	• Analysis of monitoring data on WUA finances; • Review available analysis of water governance at local level; • Review of key informant opinion; • Review of female and male beneficiary opinion.	• Available monitoring data on WUA finances; • Analytical literature on local institutional issues; • (Reported) opinions of intended beneficiaries; • Key informants.	• Analysis of data; • Document review; • Interviews; • Focus group discussions.
12. In Bangladesh, did the implicit Netherlands theory of change with regard to support for water management make realistic assumptions about how such support would enhance water productivity?	• Analysis of assumptions in implicit ToC and reported effects of interventions on water productivity; • Review of key informant opinion.	• Analytical literature on water productivity issues; • Programme monitoring and evaluation documents. • Key informants.	• Document review; • Interviews.
Water management planning and implementation			
13. Did Dutch support contribute to approved water management plans in Bangladesh?	• Analysis of documented history of water management plan development and approval during and since review period; • Analysis of Netherlands role in water management plan development and approval; • Review of key informant opinion.	• Documentation on water management plan development and approval; • Documentation on Netherlands inputs to water management plan development and role in achieving plan approval; • Key informants.	• Document review; • Interviews.
14. Did the water management plans that the Netherlands supported in Bangladesh follow the principles of IWRM, stakeholder participation, transparency, equity and environmental sustainability?	• Assessment of reflection of IWRM and related principles (notably participatory management, women's involvement and the economic value of water) in Netherlands-supported water management plans; • Review of key informant opinion.	• Documentation on water management planning and IWRM in Bangladesh; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
15. Did Dutch support in Bangladesh contribute to a strengthened environment (political, national and local institutions, information, infrastructure and O&M) for actual implementation of water management plans?	• Assessment of clarity and acceptance of institutional arrangements at national and local levels; • Assessment of political will for strengthened water governance; • Assessment of degree of co-operation among and between development partners and GOB; • Assessment of trends in maintenance of water infrastructure; • Assessment of trends in availability and quality of water management data; • Review of key informant opinion.	• Documentation on water management institutions; • Documentation on inter-donor and donor-GOB collaboration in water management; • Data on water infrastructure maintenance; • Water management databases; • Key informants.	• Review of relevant literature and datasets; • Interviews.
16. Have domestic budgets been allocated for the implementation of water management plans whose preparation was supported by the Netherlands in Bangladesh?	• Analysis of Bangladesh capital and recurrent budget data.	• Bangladesh budget data.	• Budget data collection with assistance of EKN.
17. Are water management plans whose design was supported by the Netherlands in Bangladesh being implemented?	• Analysis of programme completion and evaluation reports; • Review of key informant opinion.	• Documentation on water management in Bangladesh; • Key informants.	• Document review; • Interviews.
18. Is the implementation of enhanced water management whose design was supported by the Netherlands in Bangladesh achieving its objectives, notably water safety and water security?	• Analysis of programme completion and evaluation reports; • Review of key informant opinion.	• Programme completion and evaluation reports; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
19. In Bangladesh, did the implicit Netherlands theory of change with regard to support for water management planning and implementation make realistic assumptions about how such management would be designed and implemented, and about the benefits it would achieve?	• Analysis of assumptions in implicit ToC and reported levels of implementation and effectiveness of water management plans; • Review of key informant opinion.	• Analytical literature on water productivity issues; • Programme monitoring, completion and evaluation documents; • Key informants.	• Document review; • Interviews.
Transboundary water management			
20. In Bangladesh, did Dutch support contribute to strengthened institutional arrangements and formal agreements over transboundary water management (TWM), and did these take into account global norms for international water resources?	• Analysis of history of TWM arrangements (primarily between Bangladesh and India) before and during review period, and of effectiveness of Netherlands-funded interventions in this field; • Analysis of content of Netherlands-funded interventions to check for provisions for global norms; • Review of key informant opinion.	• Literature on TWM in South Asia; • Programme monitoring, completion and evaluation documents; • Key informants.	• Document review; • Interviews.
21. Did Dutch support in Bangladesh contribute to a strengthened environment (political, institutional, infrastructure and O&M) for the implementation of TWM arrangements and agreements?	• Review general and programme-specific literature (in particular, monitoring, completion and evaluation reports) for evidence of clear and agreed rights, roles and responsibilities, and jointly agreed management initiatives; • Review of key informant opinion.	• Literature on TWM of Ganges, Brahmaputra and Meghna river systems; • Programme monitoring, completion and evaluation documents; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
22. Did the governments of Bangladesh and other countries allocate budgets and/or take measures for the sustained implementation of TWM arrangements and agreements to which Netherlands support contributed?	• Review of available budget data; • Review general and programme-specific literature (in particular, monitoring, completion and evaluation reports) for evidence of clear and agreed rights, roles and responsibilities, and jointly agreed management and maintenance initiatives; • Review of key informant opinion.	• Available budget data from Bangladesh and India; • Literature on TWM of Ganges, Brahmaputra and Meghna river systems; • Programme monitoring, completion and evaluation documents; • Key informants.	• Budget data analysis; • Document review; • Interviews.
23. In Bangladesh, did Dutch support for TWM enhance water safety and security?	• Analysis of general and programme-specific literature for evidence of linkages between Netherlands-supported TWM interventions and enhanced water safety and security (reduced flood risk and damage); • Review of key informant opinion.	• Literature on TWM of Ganges, Brahmaputra and Meghna river systems; • Programme monitoring, completion and evaluation documents; • Key informants.	• Document review; • Interviews.
24. In Bangladesh, did the implicit Netherlands theory of change with regard to support for TWM make realistic assumptions about how such management would be agreed and implemented, and about the benefits it would achieve?	• Analysis of assumptions in implicit ToC, reported levels of progress with and benefits of TWM, and factors influencing progress and benefits; • Review of key informant opinion.	• Literature on TWM of Ganges, Brahmaputra and Meghna river systems; • Programme monitoring, completion and evaluation documents; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
Cross-cutting issues			
25. Were environment, climate change and other priority Netherlands policy themes effectively mainstreamed in Netherlands-supported water management initiatives in Bangladesh?	• Analysis of design documents and monitoring, completion and evaluation reports for Netherlands-supported water management initiatives to check whether priority policy themes meaningfully mainstreamed (versus superficially mentioned); • Review of key informant opinion.	• Design documents; • Monitoring, completion and evaluation reports; • Key informants.	• Document review; • Interviews.
26. Did Netherlands-supported water management initiatives in Bangladesh maintain or improve water management benefits for, and levels of management participation of, women and for lower income groups?	• Analysis of programme monitoring, completion and evaluation reports for gender-specific initiatives and reporting, showing levels of women's membership and management participation and checking whether these are meaningful or 'token' indicators; • Review of participant opinion; • Review of key informant opinion.	• Monitoring, completion and evaluation reports; • Participants; • Key informants.	• Document review; • Interviews; • Focus group discussions.
27. Did implementation of Netherlands water management policy in Bangladesh establish platforms for exchange of Dutch knowledge and skills and enhance the reputation, market profile and profitability of Dutch private sector engagement in the country; and did any such results simultaneously contribute to achievement of the overall objectives of the policy?	• Analysis of monitoring, completion and evaluation reports, including for RVO-managed initiatives, to establish roles and achievements of, and benefits for, the Dutch private sector and knowledge institutions, as well as contribution of these Dutch sectors to achievement of policy objectives in Bangladesh; • Review of key informant opinion.	• Monitoring, completion and evaluation reports; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
Efficiency			
28. Was the Netherlands able to fulfil its role as expert, broker and diplomat in enhancing collaboration between concerned actors within the Dutch government, the Netherlands water sector and Bangladesh, and enhance complementarity and synergy of activities?	• Review evaluations of Netherlands-funded programmes and analysis of the Bangladesh water management sector generally for assessments of Netherlands performance; • Assess perceptions of Netherlands performance in Bangladesh among government, EKN, donor partner and civil society informants.	• Analysis of Bangladesh water management sector and of Netherlands performance within the sector; • Key informants.	• Document review; • Interviews.
29. Did the involvement of the Dutch water sector in Bangladesh lead to information, knowledge and technologies that are relevant and useable in the Bangladesh water sector?	• Review progress, completion and evaluation reports on Dutch-funded interventions for evidence on sustainable transfer of information, knowledge and technologies; • Interview key informants in Bangladesh water management sectors (including resource management specialists, geographic information services and knowledge institutions) for evidence on any such transfer.	• Analysis of Bangladesh water management sector and of Netherlands contributions of information, knowledge and technologies; • Key informants.	• Document review; • Interviews.
30. Did the involvement of the Dutch water sector in Bangladesh strengthen the commitment and activities of other donors, policy-making structures and/or implementing agencies in the Bangladesh water sector?	• Review records of LCG and other relevant structures for evidence of positive Dutch contributions; • Interview key informants in GOB, development partner agencies and civil society for evidence of any positive contribution.	• LCG and other relevant records; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
31. What do available data show with regard to the cost per beneficiary and per unit of production benefit of Netherlands-supported water productivity activities in Bangladesh?	• Analyse progress, completion and evaluation reports on Dutch-supported water productivity interventions for evidence on these costs, including trends over the review period; • Consult key informants for any supplementary information.	• Project progress, completion and evaluation reports; • Key informants.	• Document review; • Interviews.
32. What do available data show with regard to the cost and duration of achieving key water management planning support results, compared to the cost and schedules specified in the design of these interventions?	• Analyse project completion and evaluation reports for evidence on cost overruns, delays, under-expenditure and early completion, together with explanatory factors; • Consult key informants for any supplementary information.	• Project completion and evaluation reports; • Key informants.	• Document review; • Interviews.
33. In Bangladesh, did the implicit Netherlands theory of change with regard to water management policy make realistic assumptions about how efficiently the policy could be implemented?	• Analyse project progress, completion and evaluation reports, as well as EKN annual reports, for evidence on realism of ToC assumptions, in particular those linking activities to outputs; • Review of key informant opinion.	• Project progress, completion and evaluation reports; • Key informants.	• Document review; • Interviews.

Table II.1 Evaluation matrix			
Evaluation question	**Analysis and indicators**	**Main sources of information**	**Data collection methods**
Policy options[18]			
34. In Bangladesh, how might the efficiency and effectiveness of Netherlands water management policy implementation be improved?	• Analyse project completion and evaluation report reports, and relevant sector reviews, for recommendations on enhancing efficiency and effectiveness; • Review of key informant opinion.	• Project completion and evaluation reports; • Key informants.	• Document review; • Interviews.
35. In Bangladesh, what are the options for achieving a 20% reduction in the budget for Netherlands support to water management?	• Analyse project completion and evaluation report reports, and relevant sector reviews, for comments and recommendations on potential cost savings and activities not achieving satisfactory return on investment; • Review of key informant opinion.	• Project completion and evaluation reports, sector reviews; • Key informants.	• Document review; • Interviews.

[18] The overall evaluation ToR say that 'an attempt to answer these questions will be made, based on the findings of the policy evaluation, by the responsible policy department(s) in collaboration with IOB'. For this country case study, the questions are included in order to identify options that might be taken up in these overall discussions.

Annex 3 Online survey

1 Introduction

As you may be aware, a policy evaluation team commissioned by the Netherlands Ministry of Foreign Affairs was recently in Bangladesh to gather information on Dutch support for improved water management in the country during the period 2006-2015. As part of the team's information gathering, you are kindly requested to fill in the attached brief questionnaire, with reference to the Dutch supported project on which you are working or previously worked. (If you work or worked on more than one project, please discuss the principal project with which you have been concerned.)

The information gathered through this on-line questionnaire will remain confidential, and none of the views you express will be attributed to you personally. The answers to the on-line questionnaire serve as an information source that is supplementary to available project documentation, interviews and group discussions held in Dhaka. It will help the evaluation team to arrive at findings validated from multiple information sources.

We would be very grateful if you can complete the survey by 20 November 2016.

On behalf of the team thank, you very much in advance for your contribution.

Stephen Turner
Team leader, Bangladesh case study

sdturner@iafrica.com

1.1 Please state your name below. As we have indicated, this will remain confidential.

1.2 On which project are you working or did you work?
> *This is the project to which your comments below should refer.*

1.3 For how long have you been working *(or did you work)* on this project?
☐ <1 year ☐ 1.0 - 2.9 years ☐ 3.0 - 4.9 years ☐ 5 years or more

1.4 Comment *(if you wish)*

2 Effectiveness

2.1 How do you rate the overall effectiveness of the project *(or likely effectiveness if project not yet complete)*?

- ☐ Highly satisfactory: achieved progress towards all major expected outcomes and to sustainable results. Best practice achievement and no major shortcomings.
- ☐ Satisfactory: achieved progress towards all major expected outcomes and to sustainable results. No best practice achievement and no major shortcomings.
- ☐ Moderately satisfactory: achieved progress towards all major expected outcomes but sustainability unresolved.
- ☐ Moderately unsatisfactory: achieved progress towards only part of the expected outcomes and sustainability unresolved.
- ☐ Unsatisfactory: did not achieve progress towards major expected outcomes, did not take into account major constraints and opportunities, and/or encountered a major shortcoming.
- ☐ Highly unsatisfactory: did not make progress towards any of its expected outcomes and did not take into account major constraints and opportunities, while encountering at least one major shortcoming.
- ☐ Cannot rate effectiveness at this stage.

> *Please explain your answer.*

3 Efficiency

3.1 How do you rate the efficiency of the project?

- ☐ Highly satisfactory: progress towards achieving key results as per the originally planned budget and duration.
- ☐ Satisfactory: progress towards achieving key results at agreed higher budget and/or over a longer period.
- ☐ Moderately satisfactory: progress towards a part of the key results at the agreed budget and duration.
- ☐ Moderately unsatisfactory: progress towards a part of the key results at the agreed higher budget and/or over a longer period of time.
- ☐ Unsatisfactory: no progress as per the originally planned budget and duration.
- ☐ Highly unsatisfactory: no progress at agreed higher budget and/or over a longer period of time.
- ☐ Cannot rate efficiency at this stage.

> *Please explain your answer.*

4 Aspects of project performance

How do you rate the project's performance on the following factors? If a question is not applicable to your project, please mark the 'not applicable' response.

4.1 Technical quality and progress in hardware and infrastructure development *(if applicable)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.2 Contribution to institutional development and capacity building *(if applicable)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.3 Inclusion of integrated water resource management principles *(if applicable)*: **principle 1:** "water is a finite and vulnerable resource, essential to sustain life, development and the environment".

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.4 Inclusion of integrated water resource management principles *(if applicable)*: **principle 2:** "water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels".

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.5 Inclusion of integrated water resource management principles *(if applicable)*: **principle 3:** "women play a central part in the provision, management and safeguarding of water".

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.6 Inclusion of integrated water resource management principles *(if applicable)*: **principle 4:** "water has an economic value in all its competing uses and should be recognized as an economic good".

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.7 Contribution to improved river basin/watershed management *(if applicable)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.8 Contribution to safe deltas *(if applicable)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.9 Contribution to water productivity in agriculture *(if applicable)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.10 Contribution to inclusive economic development *(addressing the needs of women, girls and the poorest groups in communities)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.11 Contribution to climate change resilience *(if applicable)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.12 Contribution to vital ecological systems *(if applicable)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Too soon to offer a judgement on this issue
- ☐ Not applicable to this project

> *Please explain your answer.*

4.13 Sustainability of project achievements *(or likely sustainability, for ongoing projects)*

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Cannot offer a judgement at this stage

> *Please explain your answer.*

4.14 Involvement of Dutch water sector in achieving project objectives

- ☐ Highly satisfactory
- ☐ Satisfactory
- ☐ Moderately satisfactory
- ☐ Moderately unsatisfactory
- ☐ Unsatisfactory
- ☐ Highly unsatisfactory
- ☐ Cannot offer a judgement at this stage
- ☐ Not applicable *(Dutch water sector not involved, not intended to be involved)*

> *Please explain your answer.*

5 Explanatory factors

5.1 What were the strongest aspects of this project's performance, or what have been the strongest aspects so far?
> *The comment box will expand if you need more space.)*

5.2 What were the weakest aspects of this project's performance, or what have been the weakest aspects so far?
> *The comment box will expand if you need more space.)*

5.3 What were the most important factors supporting the implementation of the project, or what have been the most important factors so far?
> *The comment box will expand if you need more space.*

5.4 What were the most important factors constraining the implementation of the project, or what have been the most important factors so far?
> *The comment box will expand if you need more space.*

5.5 Please add any other comments on the performance of the project that you think would help the evaluation team.
> *The comment box will expand if you need more space.*

6 Thank you for your help!

Annex 4 Project data

Table IV.1 below shows the projects covered by this 11-year review that were implemented with bilateral Netherlands funding administered through the EKN. It shows the same set of projects presented in Table 3.1. This chronological presentation helps to show the sequence of activities, and the varying thematic emphasis, over the review period.

Table IV.1 Water management projects: delegated funding, 2006-2016: chronological

No.	Project Name	Start	End	Project budget EUR	Expenditures 2006-2016 EUR
26	Small Scale Water Resources Sector Development Project Phase II (SSWRSDP II)	Jan 02	Jun 10	19,040,675	11,224,665
27	Small Scale Water Resources Sector Development Project Phase II (SSWRSDP II) Monitoring and Evaluation	Jan 02	Jun 10	140,829	66,299
51	DHA PDO-ICZM: Integrated Coastal Resources Database	Feb 02	Dec 08	314,937	245,979
1536	Integrated Planning for Sustainable Water Management (IPSWAM) Monitoring/Review	Jan 03	Dec 11	63,864	54,184
38	Integrated Planning for Sustainable Water Management (IPSWAM) (TA)	Nov 03	Aug 12	6,870,123	3,856,721
12281	BRAC Char Development and Settlement Project Phase III (CDSP III)	Jul 05	Jun 10	1,457,118	1,277,355
57	Estuary Development Programme (EDP)	Aug 05	Nov 11	2,805,818	2,805,818
39	Integrated Planning for Sustainable Water Management (IPSWAM) (FA)	Oct 05	Feb 11	3,045,744	3,045,744
12702	Char Development and Settlement Project Phase III (CDSP III) TA	Oct 05	Feb 11	2,685,341	2,285,342
12876	Char Development and Settlement Project Phase III (CDSP III) FA	Oct 05	Feb 11	8,164,682	8,164,683
13766	Twinning Arrangement Phase II	Jan 06	Dec 07	388,457	388,458
13546	South West Area Integrated Water Resources Planning and Management Project (SWAIWRPMP) Phase I	Feb 07	Jun 15	9,627,080	9,627,080
18078	Twinning Arrangement Phase III	Jan 08	Dec 09	450,163	450,162
9525	Integrated Water Resource Management Support Fund	Nov 08	Feb 09	396,292	352,878
18547	Emergency Disaster Damage Rehabilitation Project (EDDRP)	Nov 08	Jun 11	17,054,496	17,054,496
18736	Water Sector Support Fund	Dec 08	Dec 12	284,039	284,038

Table IV.1 Water management projects: delegated funding, 2006-2016: chronological

No.	Project Name	Start	End	Project budget EUR	Expenditures 2006-2016 EUR
20854	Capacity building and knowledge transfer to MoFA on its claim on continental shelf (Support to MFA for preparation of UN Convention on the Law of the Sea claim: UN-CLOS)	Jan 10	Jun 11	147,705	147,706
20387	Ecosystems for Life: a Bangladesh-India Initiative (Dialogue for Sustainable Management of Trans-Boundary Water Regimes in South Asia)	Feb 10	Dec 14	5,163,557	5,060,017
90	Water Management Improvement Project [restructured]	Jul 11	Jun 16	2,040,000	2,040,000
21607	Char Development and Settlement Project Phase IV (CDSP IV)	May 11	Jun 18	15,624,870	9,390,490
23732	Water Support Fund 2012-15	Feb 12	Dec 16	1,300,000	671,587
24634	Enhancing Food Security Through Improved Crop Water Management Practices in the Southern Coastal Areas of Bangladesh	Nov 12	Jun 15	2,209,500	2,209,500
24789	Building Community Resilience Through Integrated Water Management	Nov 12	Aug 17	5,747,985	5,693,054
24007	Blue Gold, Programme for Integrated Sustainable Economic Development by Improving the Water and Productive Sectors in Selected Polders	Jan 13	Dec 19	62,670,000	16,861,497
25695	Satellite for Crops	Aug 13	Jul 16	160,153	114,797
26397	Urban Dredging Demonstration Project (UDDP)	Aug 13	Dec 16	5,425,581	5,033,000
26224	Enhancing Resilience to Natural Disasters and the Effects of Climate Change in Bangladesh	Jan 14	Dec 15	1,266,000	1,265,915
25545	Formulation of the Bangladesh Delta Plan 2100	Mar 14	Jun 17	8,782,253	5,024,965
26408	Flood and Riverbank Erosion Risk Management Investment Programme (FRERMIP)	Aug 14	Dec 19	12,871,161	5,167,080
27948	South West Area Integrated Water Resources Planning and Management Project (SWAIWRPMP) Phase II	Nov 15	Jun 23	5,180,000	759,207
	Total			**201,378,423**	**132,045,537**

Table IV.2 below gives more detail on the centrally funded activities that were summarised in Table 3.2.

Table IV.2 MFA centrally funded activities with links to Bangladesh

Activity name	Period	Intervention(s) in Bangladesh, as reported in available documentation	Comments	Relevance to delegated programme[19]
Water management in agriculture				
Agricultural development				
no activities				
Water productivity				
Water Grand Challenge – Securing Water for Food	Jan 14 - Dec 19	The Netherlands co-finances this initiative with USAID and Sida. The main activity supported in Bangladesh so far has been a sandbar cropping technique developed to enable to the poor to produce food on the sandy islands that appear in rivers as floodwaters recede (SWFF, 2016).	Not considered complementary by the EKN.	Not considered relevant.
IFAD Agricultural Smallholder Adaptation Programme	Nov 12 - Oct 16	With the UK, Canada and Belgium, the Netherlands co-finances this IFAD programme to strengthen small-scale farmers' resilience to climate change. Support through the Climate Adaptation and Livelihood Protection (CALIP) project in Bangladesh (2012-2020) includes enhanced protection against flood damage (IFAD, 2014).	The EKN reported no active interaction with this project.	Not considered relevant.
(Sub) national water management				
(Sub) national water management planning				

Table IV.2 MFA centrally funded activities with links to Bangladesh				
Activity name	**Period**	**Intervention(s) in Bangladesh, as reported in available documentation**	**Comments**	**Relevance to delegated programme[19]**
(Sub) national water management implementation				
(River) basin management				
Water and Nature	Nov 08 - Dec 14	This IUCN initiative promoted IWRM; Bangladesh falls within one of its demonstration river basins (Himal-Hindu Kush), where the programme worked with Bangladeshi and other country stakeholders to 'put innovative tools for water management into practice' (IUCN, 2011, p. 7). This activity linked to the TWM project, 'Ecosystems for Life' supported by the EKN with delegated funds (Table 3.1).	Not known to the EKN; nor are links to the Ecosystems for Life project known there.	Not considered relevant.
Coastal development				
no activities				
Disaster management				
no activities				
Transboundary water management				
no activities				
Cross-cutting policy themes				
Climate				
no activities				

Table IV.2 MFA centrally funded activities with links to Bangladesh

Activity name	Period	Intervention(s) in Bangladesh, as reported in available documentation	Comments	Relevance to delegated programme[19]
Good governance				
Water Integrity Network	Jul 14 - Dec 17	The Bangladesh Water Integrity Network is part of this global alliance. With Transparency International Bangladesh, it recently published an assessment of integrity in Bangladesh water sector management (WIN, 2016a) and has undertaken a number of advocacy and training initiatives in the country (WIN, 2016b).	The EKN had some initial interaction with the Bangladesh Water Integrity Network, but little more recently. The initiative's links with Transparency International may make engagement with it sensitive for some stakeholders in Bangladesh.	Limited relevance.
Gender				
IWRM, Gender and Water in South Asia	Jan 08 - Dec 13	This project for 'Regional Capacity Building for IWRM and Gender and Water in South Asia – Crossing Boundaries' closed in December 2011. Partner institutions included three in Bangladesh. The project carried out a number of research and training activities in the country.	The EKN was aware of this project's activities in Bangladesh, but the follow up is not known.	Relevant.

Table IV.2 MFA centrally funded activities with links to Bangladesh				
Activity name	**Period**	**Intervention(s) in Bangladesh, as reported in available documentation**	**Comments**	**Relevance to delegated programme[19]**
Environment				
no activities				
Across water management themes				
Global Water Partnership activities				
Global Water Partnership	Jan 98 - Dec 17	Promotes IWRM, notably through the Bangladesh Water Partnership (BWP, established 1998 and hosted by the Local Government Engineering Department (LGED)). Many of the BWP's activities concern advocacy, networking and capacity development. The BWP is implementing a GWP initiative on delta planning, with technical assistance (TA) funded by the Netherlands (BWP, 2016) and supported development of a climate change strategy and action plan (Nilsson and Walter, 2011, p. 32).	Bangladesh Water Partnership was initiated by the LGED; BWDB was not involved. Most of the membership are concerned with WASH.	Not considered relevant.
Knowledge institutions' activities				
CapNet	Jan 01 - Dec 15	Funded by the Netherlands and Sweden, the UNDP International Network for Capacity Development in Sustainable Water Management supports a Bangladesh CapNet that 'has good linkages with universities and government and has been active in the development of case studies on climate change' (Cap-Net, 2015, p. 52).	Not known to the EKN.	Not considered relevant.

Table IV.2 MFA centrally funded activities with links to Bangladesh

Activity name	Period	Intervention(s) in Bangladesh, as reported in available documentation	Comments	Relevance to delegated programme[19]
Urbanising Deltas	Oct 12 - Dec 22	This is a research programme co-ordinated by the Netherlands Organisation for Scientific Research (NWO), funding work by north-south consortia. In Bangladesh, it has funded research on strengthening strategic delta planning processes; adaptive delta management dynamic polder management for sustainable livelihoods; and community resilience through rapid prototyping of flood proofing technologies (NWO, 2016).	There is clear potential for complementarity between this relatively new research programme and the BDP 2100 exercise, if the latter is carried forward beyond the current, initial phase. That potential has not yet been actively developed.	Relevant.
Programmatic support for UNESCO-IHE	Jan 08 - Dec 19	Through DUPC (DGIS - UNESCO-IHE Programmatic Co-operation), support is provided for UNESCO-IHE activities in many countries – including several in Bangladesh. In 2014, for example, these included the optimisation of water allocation between two river basins in the country; a flood risk mapping and flood prediction initiative; and a project on 'integrating the dynamics of social and biophysical processes to support delta management in Bangladesh' (UNESCO-IHE, 2015, pp. 18, 21).	While expertise from UNESCO-IHE has played constructive roles in many activities in the portfolio under review, the EKN was not directly aware of what this programmatic support may have assisted in Bangladesh.	Limited relevance.

Table IV.2 MFA centrally funded activities with links to Bangladesh

Activity name	Period	Intervention(s) in Bangladesh, as reported in available documentation	Comments	Relevance to delegated programme[19]
Multi-donor trust funds				
Water Financing Partnership Facility	Apr 07 - Dec 18	The Netherlands contributes to this Asian Development Bank (ADB) facility, which has supported various water management initiatives in Bangladesh, including the Irrigation Management Improvement Investment Programme and the Southwest Area Integrated Water Resources Planning and Management Project (SWAIWRPMP; WFPF, 2016, p. 2).	Assisted in the formulation of the National Water Act, the preparation of the ADB-funded Irrigation Management Improvement Investment Programme and the preparation of SWAIWRPMP.	Very relevant.
Promotion of engagement of Dutch water sector				
Young Experts Programme	Jan 13 - Dec 18	This programme for young Dutch and developing country professionals to work on projects in the water and food security sectors. One Dutch young expert has been posted to Bangladesh, in the water and sanitation sector.	This programme is considered complementary, providing junior expertise at low rates and helping to develop a new generation of Dutch specialists who can in future contribute in Bangladesh and other developing or transitional countries.	Very relevant.
Aqua For All PPP Innovation Programme	Oct 14 - Dec 19	This programme aims to promote small-scale innovations in the water sector through public-private partnership arrangements. Initiatives in Bangladesh have spanned drinking water and water resource management; in the latter case, a technique to create lenses of fresh water in brackish aquifers (3R Partnership, 2014).	Relevant to WASH activities, although the technology may present pricing challenges.	Relevant.

[19] This assessment of relevance is based on the evaluation team's interpretation of responses from EKN informants and other Bangladesh stakeholders.

Annex 5 Persons met

The list below includes persons who were interviewed by telephone or Skype [shown by reference to The Netherlands in square brackets].

Focus group discussions and meetings with WMGs held in the field are listed separately.

Table V.1 Persons met

S.P. Adhikari	m	Chief Engineer, LGED, Dhaka
M. Ahamed	m	Chief, Water Management, BWDB, Dhaka
Z.U. Ahmad	m	Team Leader, Water Resources Management, Bangladesh Resident Mission, ADB, Dhaka
I. Ahmed	m	Additional Chief Engineer, LGED, Dhaka
T. Akhter	f	Senior Socio-Economist, Blue Gold, Khulna
K. Alam	m	Assistant Country Director, UNDP, Dhaka
M.K. Alam	m	Assistant Country Director Climate Change, Environment, Energy and Disaster, World Bank, Dhaka
M.S. Alam	m	Senior Secretary, General Economics Division, Planning Commission, Dhaka
T.A. Al-Fayyaz	m	Executive Engineer, BWDB, Dhaka
M. Ali	m	Director, GIS Division, Centre for Environmental and Geographic Information Services, Dhaka
M.R. Ali	m	Deputy Chief (Fish), BWDB, Dhaka
K. Bentvelsen	f	Gender Exert, Blue Gold Project, Dhaka
N. van den Berge	m	Outcome Monitoring Specialist, Blue Gold Project, Dhaka
L. Blüm	f	First Secretary Economic and Political Affairs, EKN, Dhaka
J. de Bruijne	f	Consultant, IWRM, Mott MacDonald, Arnhem
G. Choudhury	m	Deputy Team Leader, BDP 2100 Formulation Project, Dhaka
A. Chowdhury	m	Deputy Team Leader, Blue Gold Project, Dhaka
M.R.A. Chowdhury	m	Executive Engineer, Planning-2, BWDB, Dhaka
L.M. Culenaere	f	Ambassador, EKN, Dhaka
G.K. Debnath	m	Project Director, SSWRSDP-JICA, LGED Dhaka
S. Dopp	f	Policy Officer, Netherlands Organisation for Scientific Research [The Netherlands]
W.J.A.M. Douven	m	Co-ordinator DGIS - UNESCO-IHE Programmatic Co-operation, UNESCO-IHE [The Netherlands]
N. Farhad	m	Adviser, Political Affairs, EKN, Dhaka
M.S.L. Golam	m	Director, Remote Sensing, Centre for Environmental and Geographic Information Services, Dhaka

Table V.1 Persons met		
C. de Groot	m	Former First Secretary, EKN, Dhaka
A.M.A. Haque	m	Project Director, FRERMIP, BWDB, Dhaka
M.A. Haque	m	Adviser, Water Resources and Power Management, Centre for Environmental and Geographic Information Services, Dhaka
S. Haque	m	Superintending Engineer, LGED, Dhaka
A.K.M. Hasan	m	Director, Database, ICT and System Management Division, Centre for Environmental and Geographic Information Services, Dhaka
Z.R. Hasan	m	Country Manager, Solidaridad, Dhaka
J.M. de Heer	m	Team Leader, BDP 2100 Formulation Project [The Netherlands]
J. Heun	m	Consultant [The Netherlands]
M. Hiruzzaman	m	Deputy Secretary, MWR, Dhaka
M.A. Hossain	m	Programme Co-ordinating Director, BGP 2100, BWDB, Dhaka
M.J. Hossain	m	Adviser, Water Resources Management, CEGIS, Dhaka
M.M. Hossain	m	Executive Director, Institute of Water Modelling, Dhaka
M.S. Hossain	m	Adviser, Centre for Environmental and Geographic Information Services, Dhaka
S. Hossain	m	Community Orientation Expert, Blue Gold, Dhaka
D. Howlader	m	Sub-Divisional Engineer, Dumuria O&M Sub-Division, BWDB, Khulna
M. Huq	m	Environmental Adviser, Centre for Environmental and Geographic Information Services, Dhaka
A. Islam	m	Consultant, Preparation of National Adaptation Plan, UNDP, Dhaka
A.K.M.T. Islam	m	Director, Planning-2, BWDB, Dhaka
M.A. Islam	m	Civil Engineer, Water Infrastructure, Blue Gold, Khulna
M.A. Islam	m	Project Director/Senior Engineer (South West), BWDB. Dhaka
M.R. Islam	m	Consultant, Agriculture Global Practice, World Bank, Dhaka
S. Islam	m	Assistant Chief (Sociology), BWDB, Dhaka
S. Islam	m	Executive Director, Khulna O&M Division 1, BWDB, Khulna
S.M.N. Islam	m	Project Director, PSSWRSDP, LGED, Dhaka
A. Jenkins	m	Donor Liaison Office, Impact Assessment Unit, BRAC, Dhaka
G. Jones	m	Team Leader, Blue Gold Project, Dhaka
M.H. Kabir	m	Monitoring and Evaluation Officer, Blue Gold Project (DAE component)
M.M. Karim	m	Chief Extension Officer, BWDB, Dhaka
M.R. Karim	m	Project Director, CDSP IV, LGED, Dhaka
A.T.M. Khaleduzzaman	m	Senior Adviser, Water Management, EKN, Dhaka
K. Khalequzzaman	m	Chief, Planning, BWDB, Dhaka
A.S. Khan	m	Deputy Executive Director, Institute of Water Modelling, Dhaka

Table V.1 Persons met		
M.F.A. Khan	m	Deputy Executive Director, Centre for Environmental and Geographic Information Services, Dhaka
S.I. Khan	m	Senior Programme Officer, Enhancing Resilience (ER), Programme Planning and Implementation Section, WFP, Dhaka
Z.A. Khan	m	Senior Secretary, Ministry of Water Resources, Dhaka
M. Khanam	f	Senior Adviser, Economic and Commercial Affairs, EKN, Dhaka
J. Kroon	m	Project Adviser, RVO [The Netherlands]
P.J. Kundu	m	Executive Director, Khulna O&M Division 2, BWDB, Khulna
G. Lamoree	m	Special Adviser Bangladesh, Netherlands Water Partnership, The Hague
M. Mandal	m	Staff Officer to Chief Engineer, LGED, Dhaka
J. Muylwijk	f	Executive Director, Gender and Water Alliance [The Netherlands]
A. Nishat	m	Professor Emeritus, BRAC University, Dhaka
K. Oberhagemann	f	Team Leader, FRERMIP, Dhaka
D. van Peppen	m	Programme Co-ordinator, PVW, RVO [The Netherlands]
V. Pineda	f	Community Mobilisation Expert, Blue Gold Project, Dhaka
M.A. Quassem	m	Chair, National Disaster Management Advisory Committee and Member, National Water Resources Council, Dhaka
H. Rahman	m	Deputy Chief Extension Officer, BWDB, Jessore
M. Rahman	m	Superintending Engineer (P&D), IWRM Unit, LGED
M.A. Rahman	m	Senior Quality Control Engineer, Blue Gold, Khulna
M.M. Rahman	m	Project Director, BDP 2100, General Economics Division, Planning Commission, Dhaka
M.M. Rahman	m	Additional Director General (Planning), BWDB, Dhaka
M.M. Rahman	m	Project Director, IWM, UNDP, Dhaka
M. Robson	m	FAO Representative, Dhaka
K. Roelofs	f	Head, Environment and Water Division, MFA, The Hague
I.B. Roy	m	Programme Co-ordinator, SaFaL, Khulna
S. Roy	m	Assistant Programme Co-ordinator, SaFaL, Khulna
A.F.M. Saleh	m	Professor, Institute of Water and Flood Management, Bangladesh University of Engineering and Technology, Dhaka
M.Z. Satiar	f	Senior Adviser, Sexual and Reproductive Health and Rights, EKN, Dhaka
L.S. Schwidder	f	Project Officer (International), Netherlands Water Partnership, The Hague
C. Seijger	n	Post-doctoral research fellow, UNESCO-IHE
S. Shahid	f	Team Leader, Gender and Water Programme Bangladesh, Dhaka
M.D. Shamsuddoha	m	Project Co-ordinating Director, CDSP IV, BWDB, Dhaka
N. Sharmin	f	Environment Specialist, Global Practice Social, Urban, Rural and Resilience, World Bank, Dhaka

Table V.1 Persons met		
M. Slotema	m	Adviser, Global Public Goods, RVO, The Hague
M.I. Sobhan	m	Environment Specialist, Environment and Natural Resources Global Practice, World Bank, Dhaka
F. van Steenbergen	m	Director, MetaMeta [The Netherlands]
B. Sterk	m	Manager, Blue Gold Innovation Fund [The Netherlands]
A.-E. Thiadens	f	Financial Adviser, EKN, Dhaka
W. Thissen	m	Head, Policy Analysis Section, Delft University of Technology [The Netherlands]
A.K.M.M. Uddin	m	Additional Director General, BWDB, Dhaka
M.E. Ullah	m	Executive Engineer, Planning-1, BWDB, Dhaka
L. Umans	m	First Secretary, Food Security, EKN, Dhaka
P. de Vries	m	First Secretary and Water Resources Expert, EKN, Dhaka
T. de Vries	m	VEI Project Manager, Urban Dredging Demonstration Project, Dhaka
M.J. Uddin	m	Project Director, Barind Multipurpose Development Project, LGED, Dhaka
M. Waji Ullah	m	Executive Director, Centre for Environmental and Geographic Information Services, Dhaka
M.S. Wahed	m	Director, Administration, Finance, Accounts and Logistics, Centre for Environmental and Geographic Information Services, Dhaka
J.W.K. van der Wal	m	Team Leader, CDSP IV [The Netherlands]
K. de Wilde	m	Consultant [The Netherlands]
R. ten Zijthoff	m	Controller, EKN, Dhaka

Focus group discussions and meetings with WMGs

Table V.2 Focus group discussions and meetings with WMGs			
Date	**Place**	**Women**	**Men**
23 October	Polder 22: Union Parishad office, Paikgachha Upazila, Khulna: FGD	-	12
24 October	Polder 31 (Part): WMG	17	33
24 October	Polder 31 (Part): Surkhali Union, Khulna: FGD	1	14
25 October	Falguni, Narail: WMG	7	8
25 October	Kalmilata, Narail: FGD	4	17
26 October	Surjamukhi, Chenchuri Beel, Narail: WMG	8	6
26 October	Pateswari Regulator site, Gandharbakhali, Narail: FGD	8	19
26 October	Gandharbakhali, Narail: WMG	11	13
26 October	Community Organisers, BWDB, Narail: FGD	4	19

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Photo cover:	Construction of a dike, Boyer Char, Char Development and Settlement Project III. Photo: Rob Koudstaal.
Photo chapter 1:	Satellite image of the Bangladesh delta. Google Earth.
Photo chapter 2:	Before and after situation in Kallyanpur canal in Monsurabad, Dhaka, Urban Dredging Demonstration Project. Photo: Vitens-Evides International B.V. – Urban Dredging Demonstration Project 2014 (left) and 2015 (right).
Photo chapter 3:	Rehabilitation of a drainage canal in the Enhancing Resilience programme (ER+). Photo: Carel de Groot.
Photo chapter 4:	Meeting of a water user group in CDSP III, Mohammadpur Bazar, Boyer Char. Photo: Rob Koudstaal.
Photo chapter 5:	A typical polder situation in the Blue Gold project area. Photo: Carel de Groot.

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