Ministry of Foreign Affairs

IOB Evaluation

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

Indonesia country study

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Preface

This Indonesia 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 Indonesia from 23 January to 10 February 2017. 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 Mrs Henni Hendarti, senior Indonesian water expert.

The evaluation team is very grateful for the patient support of the many informants who helped to provide documents, information and opinions, in Indonesia and the Netherlands. People met, either in person or through Skype or phone calls, are listed at Annex 4.

The team especially thanks the Netherlands Embassy in Jakarta for all the hospitality and assistance they received – in particular, from the First Secretary Water Management, Ir Carel de Groot. Special thanks also go to Ir Simon Warmerdam, Delegated Representative Water for his much appreciated support to the preparation and the conduct of the field mission.

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Finally, big thanks to all colleagues in Indonesia and the Netherlands who kindly commented on drafts of this report, helping to improve this final version.

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List of abbreviations

4P-MoU	Four-Party Memorandum of Understanding
ADB	Asian Development Bank
AWM	across water management
BEMO	Activity Appraisal Document (Beoordelingsmemorandum)
BIG	Indonesian Geospatial Agency (Badan Informasi Geospasial)
BMKG	Indonesian Agency for Meteorology, Climatology and Geophysics (Badan Meteorologi, Klimatologi, dan Geofisika)
BPPT	Indonesian Agency for the Assessment and Application of Technology (Badan Pengkajian dan Penerapan Teknologi)
Cap-Net	International Network for Capacity Development in Sustainable Water Management
CCPT	cross cutting policy themes
DAC	Development Assistance Committee
DGIS	Directorate-General for International Co-operation (Directoraat-generaal Internationale Samenwerking)
DKI	Special Capital Region (Daerah Khusus Ibukota)
DME	Environment, Water, Climate and Energy Department (Directie Milieu, Water, Klimaat en Energie)
DML	Environment and Development Department (Directie Milieu en Ontwikkeling)
DP	development partner
DRIVE	Development Related Infrastructure Investment Vehicle
DRR	disaster risk reduction
DUPC	DGIS - UNESCO-IHE Programmatic Co-operation
DUTEP	Dutch Exposure and Training Programme
EIRR	economic internal rate of return
EKN	Embassy of the Kingdom of the Netherlands
EMRP	Ex-Mega Rice Project
EQ	evaluation question
FAO	Food and Agriculture Organization of the United Nations
FDW	Sustainable Water Fund (Fonds Duurzam Water)
FHM	Flood Hazard Mapping
GEEW	gender equality and the empowerment of women
GOI	Government of Indonesia
GON	Government of the Netherlands
GPWM	Guidelines for Participatory Water Management
GWA	Gender and Water Alliance
GWP	Global Water Partnership
ha	hectare
HDI	Human Development Index
HGIS	Integrated International Co-operation Group (Homogene Groep Internationale Samenwerking)

ICR	Implementation Completion and Results
IED	Independent Evaluation Department
IFAD	International Fund for Agricultural Development
IFI	international financial institution
IGG	Inclusive Green Growth Department (directie Inclusieve Groene Groei)
IISP	Indonesia Irrigation Sector Project
IMED	Independent Monitoring and Evaluation Department
INA	Indonesian Benelux Chamber of Commerce
IOB	Policy and Operations Evaluation Department (directie Internationaal Onderzoek en Beleidsevaluatie)
IUCN	International Union for Conservation of Nature
IWA	International Water Ambition
IWP	Indonesia Water Partnership
IWRM	integrated water resource management
JCDP	Jakarta Coastal Development Programme
JCDS	Jakarta Coastal Defence Strategy
JCP	Joint Co-operation Programme
JFM	Jakarta Flood Management
KKN	corruption, collusion, nepotism (korupsi, kolusi, nepotisme)
KNMI	Royal Netherlands Meteorological Institute (Koninklijk Nederlands Meteorologisch Instituut)
M&E	monitoring and evaluation
MANFQ	Ministry of Agriculture, Nature and Food Quality (Ministerie van Landbouw, Natuur en Voedselkwaliteit)
MASP	Multi-Annual Strategic Plan
MDG	Millennium Development Goal
MEA	Ministry of Economic Affairs
MFA	Ministry of Foreign Affairs
MHA	Ministry of Home Affairs
MHSPE	Ministry of Housing, Spatial Planning and the Environment (Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieu)
MIB	Multiannual Interdepartmental Policy Framework (Meerjarig Interdepartmentaal Beleidskader)
MIE	Ministry of Infrastructure and the Environment
MMAF	Ministry of Marine Affairs and Fisheries
MA	Ministry of Agriculture
MoU	memorandum of understanding
MPWH	Ministry of Public Works and Housing
MTPWWM	Ministry of Transport, Public Works and Water Management (Ministerie van Verkeer en Waterstaat)
MTR	mid-term review
NCICD	National Capital Integrated Coastal Development programme
nd	not dated
NEDECO	Netherlands Engineering Consultants
NICHE	Netherlands Initiative for Capacity Development in Higher Education

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)
PID	participatory irrigation development
PIM	participatory irrigation management
PISP	Participatory Irrigation Sector Project
PPP	public-private partnership
PPTA	Project Preparation Technical Assistance
PvW	Partners for Water (Partners voor Water)
PWM	participatory water management
QANS	Quick Assessment and Nationwide Screening
RBO	river basin organisation
RVO	Netherlands Enterprise Agency (RVO.nl; Rijksdienst voor Ondernemend Nederland)
RBT	river basin territory
SDG	Sustainable Development Goal
(S)NWM	(sub) national water management
SRHR	sexual and reproductive health and rights
t	tonne
TA	technical assistance
ToC	theory of change
ToR	terms of reference
TWM	transboundary water management
UNDP	United Nations Development Programme
UNESCO-IHE	United Nations Educational, Scientific and Cultural Organization Institute for Water Education
USAID	United States Agency for International Development
USD	United States dollar
VEI	Vitens Evides International
WACLIMAD	Water Management for Climate Change Mitigation and Adaptive Development in the Lowlands
WAMI	Water Availability Main Intakes
WANI	Water and Nature Initiative
WB	World Bank
WET	Water Experts Team
WFP	World Food Programme
WFPF	Water Financing Partnership Facility
WIN	Water Integrity Network
WISMP	Water Resources and Irrigation Sector Management Program

WMag	water management in agriculture
WMG	Water Management Group
WMO	water management organisation
WMO	World Meteorological Organization
WPP	Water Partnership Programme
WRI	World Resources Institute
WUA	Water User Association
WUG	Water User Group
YEP	Young Experts Programme

Summary

Background

The Policy and Operations Evaluation Department (IOB) of the Ministry of Foreign Affairs of the Netherlands (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 review period saw a continuation of, and a significant evolution in, the long and uneven history of Dutch engagement in Indonesian water resource management. Bilateral development assistance funding through the delegated budget of the Netherlands Embassy (EKN) continued. But with recognition of Indonesia's 'transitional' status as an increasingly strong economy (with a gross domestic product exceeding that of the Netherlands), other modes of engagement received increasing support. Matching the global Dutch policy commitment to promoting the role and commercial engagement of the Dutch water sector, links with Indonesia diversified. So did the funding instruments and administrative mechanisms used for the purpose. By the end of the review period, with development assistance only expected to last four more years, the government of the Netherlands (GON) sought to combine policy influence and commercial opportunity with an ongoing commitment to environmental, economic and social targets in water resource management.

As a theory-based evaluation, this country study identified the theory of change (ToC) implicit in Dutch water management policy and programme design in Indonesia, and the assumptions seen to underlie that theory. The report's main findings, summarised below, revisit some of those assumptions and comment on their accuracy.

Main findings

Dutch development aid contribution

1) The MFA allocated a total of EUR 55 million through the EKN's delegated budget for water resource management activities in Indonesia during the review period.

The categorisation of water management activities used in the overall evaluation distinguishes (sub) national water management planning and implementation activities. Planning received 4% of the MFA budget delegated to the EKN in Indonesia over the review period. Implementation is subdivided into (river) basin management (28% of the total); coastal development (33%); and disaster management (6%). A second principal category concerns water management in agriculture, subdivided into activities focusing on 'water productivity' enhancements (none in this category in Indonesia) and activities with a broader focus on water management in agricultural and rural development (23% of the total delegated budget over the period). A third category is transboundary water management (no activities). In the final category, cross cutting policy themes, 6% of the total budget was allocated to activities spanning water management themes.

2) In addition to the activities supported with delegated MFA funding through the EKN, MFA central funding supported activities that had links to Indonesia.

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 Indonesia. These activities included capacity development, research, the promotion of good governance in water management, networking and support to the programmes of international financial institutions (IFIs). Not managed by the MFA, the Partners for Water (PvW) programme was used actively in Indonesia, with a total EUR 7 million committed to work there during the review period. This supported a wide range of activities, focusing in the latter years of the review period on water management in Jakarta. The Sustainable Water Fund contributed EUR 3 million to a single activity, the Building with Nature coastal reclamation project.

3) The growing prosperity of Indonesia posed new policy and strategic challenges for the Netherlands.

Indonesia in some ways represents the future scenario that the Netherlands would hope to see replicated in its other development partner countries. The economy is relatively strong, as are state institutions and resources. Indonesia has the resources to solve most of its own problems, or can access international finance for the purpose. There are good opportunities for the Netherlands private sector to engage profitably, although competition is fierce. While the range of support provided by the Netherlands to Indonesian water management over the review period remained broadly relevant, questions remained about the optimal structure and content for water management co-operation in a post development assistance era. Although the International Water Ambition (IWA) did not replace earlier Dutch policy, its emphasis on 'urban deltas' was increasingly apparent in the prominent attention given to the water management challenges of Jakarta. There, and elsewhere across the portfolio, it was increasingly common for budgets and administrative mechanisms to be combined for flexible, adaptive management of appropriate responses to evolving water management challenges.

Policy effectiveness

4) In an evolving Indonesian framework, Dutch inputs remained relevant and viable.

Despite the growing strengths outlined above, Indonesian technical and institutional capacity for water resource management still needs to grow. The relevant authorities are willing and interested to maintain and strengthen links with the Netherlands in order to secure training, knowledge management and advisory services whose high quality they recognise. There were instances in which Dutch and Indonesian expertise proved synergistic, building long lasting professional relationships and achieving the objectives of their joint programmes.

5) Support for water management in agriculture was partially effective.

The major irrigation planning efforts undertaken by the Participatory Irrigation Sector Project (PISP) and the Water Resources and Irrigation Sector Management Programme (WISMP, both co-financed by the Netherlands) were only partially effective. Although some progress was made with the institutional framework needed for both planning and the implementation of plans, many weaknesses remained. There was insufficient assurance that institutional achievements were sustainable. The ToC assumption that it is socially and institutionally feasible for Netherlands assistance to achieve significant improvements in the quality of Indonesian water management institutions proved only partially true.

6) Support for water management planning led to some action.

The ToC points out the basic assumption, in the extensive Dutch support for water management planning, that planning will lead to action. The accuracy of this assumption varied in Indonesia. Towards the end of the review period, a decade or more of planning, facilitation and institutional development led to a dry Banger polder in Semarang: initial progress that awaits consolidation. Major Dutch contributions to water management planning in Jakarta made important technical contributions and were effective at a limited technical level. There were technical shortcomings too, although these must be seen in the context of the entire planning effort by the Indonesian authorities and their various development partners: the Netherlands was not the sole external participant. They included the failure to achieve a comprehensive integrated water resource management (IWRM) approach to the catchment south of the city, the inability to focus enough planning attention on the most urgent priority – improved drinking water supplies, which would slow subsidence – and the way planning slipped into unrealistic and politically unhelpful directions at the 'Great Garuda' stage of this long and continuing saga. By the end of the review period, planning for Jakarta had not yet led to fully effective action, despite the important foundations that had been laid and the range of major infrastructural investments largely inspired by Dutch support and expertise. While disaster may still happen, the fact that things are not already worse in the north of the city is largely due to the positive achievements of Dutch-supported planning. In the case of Jakarta, water management institutions were among the strongest that this global review has studied. But another ToC assumption, that there was political will to convert plans into action, could not fully be met.

7) Cross cutting policy themes were not usually a central focus of planning or action.

Gender, one of the key cross cutting policy themes, did not receive high priority in Dutch support to water management in Indonesia. Some of the Netherlands embassy's multi-annual plans hardly mentioned it. Environmental sustainability is central to the IWRM principles that were mainstreamed in Netherlands funded water management activities, but the extent to which the issue was the direct focus of attention varied. Climate change adaptation was not generally the focus; there is a sense that Indonesia has more immediate water management challenges to deal with than those that will arise from climate change. Poverty reduction and the interests of the poorest groups were not the most prominent concern in Dutch support to water resource management. As urban flood management became a prominent component of this support, questions arose as to how much the wealthy would benefit. But keeping urban areas like north Jakarta and Semarang's Banger polder dry would mainly benefit the livelihoods of large numbers of poor Indonesians, and the pro-poor rationale for Dutch engagement in such work was strong.

8) The technical appropriateness and effectiveness of water management approaches promoted by the Netherlands varied.

The accuracy of ToC assumptions about the technical validity of the water management paradigms and approaches that the Netherlands promoted in Indonesia varied. So did the effectiveness of the activities applying those approaches. The 'building with nature' efforts that the Netherlands supported were still at the stage of action research at the end of the review period: achieving some encouraging results but still clearly needing further refinement. Dutch support was partially effective in the further establishment of IWRM concepts and planning approaches, and at least laid the foundations for effective action to save the country's vast peat and lowland resources before assistance stopped. But Indonesia, like most other developing and transitional economies, was a difficult environment in which to overlay an additional nationwide institutional framework for water management – in this case river basin territories and organisations – onto an already complex hierarchy of local government systems. Progress was bound to be slow, and the political priority for this new framework was unsurprisingly low.

9) Questions of financial responsibility for water management were not fully resolved.

Much of the thinking around the massive infrastructural developments proposed to end Jakarta's grave risk of flooding focused, as requested by the Government of Indonesia (GOI) on public-private partnerships, with major private sector investment that, it was hoped, would reduce the strain on public funds. The consensus by the end of the review period was that some of this thinking had been too ambitious and the funding models would have to be refined. The Dutch water authority concept of a separate levy on residents to keep them dry was proposed in the Banger polder, but had not yet been put into operation. The question of a contribution by Jakarta residents towards future operational costs of an enhanced drainage system was still under discussion. Institutional and regulatory obstacles still confronted efforts to consolidate a system of user fees on irrigated land.

10) With substantial funding from the development assistance budget, the multiple engagements of the Dutch water sector with Indonesian water management issues increased policy effectiveness.

Qualitative assessment of the complex, interlocking body of work that emerged in the Indonesia portfolio reveals another important dimension of effectiveness – in the field of 'soft power'. These are the activities whose results are often intangible but can nevertheless be meaningful and beneficial for both parties. Through the Joint Co-operation Programme (JCP) for scientific collaboration, through various training programmes, through the ongoing engagement of various Dutch knowledge institutions and water authorities in a range of water management initiatives in Indonesia, and through the efforts of the EKN and of the Netherlands Delegated Representative for Water, the Netherlands managed to maintain its respected and pre-eminent position as the partner of choice for Indonesia – whenever it could avoid being relegated by price factors. The Dutch water sector largely succeeded in the delicate task of proving its relevance and its value, despite the fact that its Asian competitors were so much cheaper and so much better resourced. The ToC assumption that the Dutch private sector would have the appetite to engage in the Indonesian market proved true. The Netherlands has the strongest reputation among foreign countries as a trusted adviser and provider of technical expertise in water resource management, particularly in research, data management, planning and co-ordination. Deployment of this 'soft power' helped to enhance the quality of water resource management in Indonesia by strengthening planning processes, institutional arrangements, technical approaches and Indonesian capacity in all of these areas.

11) The shift to new modalities has made it harder to evaluate effectiveness.

The review period represented (to use an unsatisfactory shorthand) the shifting relationship between 'aid' and 'trade' in Dutch policy and programming for support to water management in Indonesia. The effectiveness of the more conventional development assistance components of this 11-year portfolio – Aceh sea defence, the EMRP, IWRM planning, PISP, WISMP, the Banger polder, Jakarta pilot dredging – ranged from weak to adequate. There were clear failings, some satisfactory results and some promising outcomes that have yet to be consolidated. This assessment must, of course, draw from the incomplete performance and evaluation reporting that is available. The effectiveness of the less conventional, more 'trade'-related activities – notably the Jakarta activities and many of the PvW subsidies and commissions – must be judged even more qualitatively. Many of them were not reported or assessed as thoroughly as Dutch development assistance used to be.

Policy efficiency

12) The partial effectiveness of the portfolio was achieved despite, not because of, the way it was structured.

The evolution of the Netherlands' approach to supporting improved water management, as applied to Indonesia, meant that this was no longer 'aid' policy; it was a broader, interministerial concept of collaboration that appeared to shift towards a narrower thematic focus ('urban deltas') while involving more Dutch institutional stakeholders, funding channels and administrative mechanisms. Although the EKN delegated budget remained larger, the Netherlands Enterprise Agency (RVO) became an increasingly

important actor in the overall process. From some points of view this was a more efficient arrangement, given the evolving focus of overall Dutch policy and the need for flexible, adaptive management in The Hague and Jakarta. Use of PvW was valuable in this regard. Through the 'delta team' for Indonesia, and below that the management team at working level, a mode of entrepreneurial management emerged that used this more complex system to good advantage. But many stakeholders disagreed with the ToC assumption that the expanded suite of methods and tools were relevant, complementary, synergistic, effective and efficient. They felt that the system was too complicated to be fully fit for purpose – but that, because so many stakeholders were involved in The Hague, the prospects of reforming it were poor.

13) *The Dutch approach to water management co-operation with Indonesia evolved organically over the review period. Some valuable results were achieved, but the system is not fully coherent.*

One of this country study's final evaluation questions asks whether, in Indonesia, the implicit Dutch ToC with regard to water management policy made realistic assumptions about how efficiently the policy could be implemented. In fact, there was probably no point in the 11-year review period when the approach was so systematically spelled out that such assumptions were explicitly stated. This is an approach that has developed gradually over the period, learning by doing. It has resulted in a system that can achieve relatively quick and focused action but whose institutional and organisational coherence is incomplete, despite the coordinating framework provided by the successive intergovernmental memoranda of understanding on cooperation in the water sector. From that point of view, in the hands of skilled entrepreneurial managers, policy could be implemented efficiently. A simpler, better integrated approach and implementation mechanisms would enhance efficiency. Part of that integration would link the policies and programmes of the responsible ministries in the government of the Netherlands more clearly and cohesively together. Another aspect of improved integration would be more thorough linkage and coordination of activities funded centrally by the MFA with the rest of the portfolio: moving beyond paper complementarity to operational collaboration and synergy. During the review period that integration was incomplete, so that resources and activities were poorly coordinated.

Recommendations

Policy effectiveness

1) *Frame Dutch water management co-operation with Indonesia in terms of the Sustainable Development Goals.*

Given the increasingly balanced relationship between the Netherlands and Indonesia, and the difficulty of fully aligning all existing policy, including the IWA, with Indonesia's water management challenges, programming for collaboration in this sector should be expressed in terms of both nations' commitment to the SDGs, including but not restricted to SDG 6. This would provide a sound rationale linking the long-term commitment of the Netherlands to good global citizenship, through pursuit of the SDGs, with its continuing priority for support to water management. Reference to the SDGs should also be used to reaffirm Dutch commitment to helping Indonesia achieve gender equity and maintain a focus on the poorest groups – in water management as in other sectors. Using the SDGs to frame the programme would push awkward references to 'aid', 'trade' and any surrogate terms into the background, and help to emphasise a balanced partnership with shared goals.

2) *Build and capitalise on the Netherlands' profile as 'trusted adviser'.*

As it phases out its conventional development assistance role in Indonesia, the Netherlands should continue to build its role, performance and profile as Indonesia's 'trusted adviser' in the water management sector. This benefits both countries, and furthers the Netherlands' global ambitions for its 'top sector water'. The Netherlands should strive to build the function to span all sub-sectors and challenges in Indonesian water management, including irrigation, lowland/peatland management and river basin planning and management. Sensitively managed in a spirit of mutual learning, contributions by Dutch water authorities should continue, and can make a useful contribution to advisory effectiveness.

3) *Continue the scientific and training dimensions of the Dutch interface with Indonesian water management.*

To fulfil the 'trusted adviser' function as recommended, the Netherlands should continue what this study calls the 'soft power' dimensions of its interface with Indonesian water management. Preparation of JCP Phase III and continuation of the Dutch Exposure and Training Programme (DUTEP) are good steps in the recommended direction. Interaction between knowledge institutions for scientific purposes in water management should offer equal opportunities for Indonesian and Dutch participation. Continuation and expansion of training opportunities will achieve major, though intangible, benefits, if the next generation of Indonesian water sector managers are mostly Dutch trained – as so many of the present generation are. Science and training are important uses of Netherlands funding in Indonesia.

4) In what is planned to be an increasingly commercial relationship, maintain an element of government funding.

On the foundations laid by development assistance, Netherlands policy expects commercial engagements to dominate Dutch-Indonesian relations in the water management sector in the future. An element of GON funding should be retained. This should support continuation of the Delegated Representative position, with continuing emphasis on this covering all aspects of the sector where the Netherlands can add value – alongside adequate capacity in the EKN for support of the 'trusted adviser' and the knowledge and capacity aspects of the bilateral relationship as well as the more commercial side. GON funding should also be retained, or reinforced, for the scientific partnerships, training and capacity building recommended above.

Policy efficiency

5) Offer a clear, comprehensive (and, if possible, simplified) statement of Dutch policy for support to water management, linked to an integrated plan showing how it will be applied in Indonesia.

Dutch collaboration with Indonesia in the water management sector represents the GON's policy as a whole, not just MFA policy. Building on and linking to the intergovernmental MoU on cooperation in the water sector, future multiannual plans should include a clear, comprehensive and (if possible) simplified summary statement of how this policy and its (delegated and centrally funded) instruments, facilities and mechanisms fit together. At country level, it may not be possible to achieve much simplification. But, for the water management sector at least, a summary statement of intentions and modalities would be beneficial.

6) Match integrated planning with integrated reporting and assessment.

In consultation with all relevant GON ministries, agencies and teams, the EKN should produce an integrated annual report on all Dutch engagements with and support to the water management sector in Indonesia, including measures of performance against plans – which, of course, requires the specification of performance criteria and measurable indicators and targets. These reports should be one of the inputs to periodic overall assessments of performance that check on the effectiveness and impact of the Dutch water sector's activities in the country.

1

Introduction

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

The Policy and Operations Evaluation Department (IOB) of the Ministry of Foreign Affairs of the Netherlands (MFA) is undertaking an evaluation of Dutch aid policy for improved water management, 2006-2016.[1] 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 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). It meant enhancing water security[2] and its component objective of water safety). 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

[1] The study was originally designed to cover ten years, 2006-2015. Later, it was decided to include 2016.

[2] 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).

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 three 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 Indonesia 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 were 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 or climate change adaptation.
The policy review categorised these as **cross cutting policy themes** (CCPT), although there were none so classified in Indonesia. 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; 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 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 Indonesia (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)[3] and Partners for Water (PvW, funded from a non-ODA budget); and to understand the roles and performance of the Netherlands Enterprise Agency (RVO) and the Ministry for Infrastructure and the Environment (MIE), 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 international finance institutions like the World Bank (WB) 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 Indonesia 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 Indonesia 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-Indonesia water management portfolio. Although an independent and neutral exercise (section 1.3), the study is intended to make a constructive contribution to enhancing Netherlands support to water management in Indonesia.

The scope of this Indonesia 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

[3] See footnote 7.

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 Indonesia through PvW and FDW.

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 Indonesia 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 Indonesia study, the evaluation team reviewed this overall set of questions and elaborated them to generate 30 EQs that it included in the ToR for the study. It developed an evaluation matrix (shown below at Annex 2), setting out the 30 EQs and explaining how the evaluation team proposed to answer them. The Indonesia 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 Indonesia, 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 seven EQs span a slightly revised theme of **water management planning and implementation**. In addition to the points covered by the overall evaluation ToR 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.
  - There are no EQs on **transboundary water management** (one of the themes for the overall study). Although Indonesia has several land frontiers, these do not cut across any major river basins, and TWM has not been a significant issue in Indonesian water resource management.
  - The EQs about **crosscutting issues** are broadly the same as those posed by the TOR for the overall evaluation.
- **Efficiency EQs** for Indonesia 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 information gathered from interviews of and focus group discussions with a wide range of stakeholders (Annex 4).

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 theory of change in this country study 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 Indonesia over the review period. The findings presented in chapter 3 are used as the basis for a commentary on the accuracy of these assumptions within the presentation of main findings in chapter 4. This is an aggregate commentary on the quality of design, which is directly relevant to assessment of the policy that should have driven 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 Indonesia 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 Indonesia 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; this was not yet common practice in either mode of planning. 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.

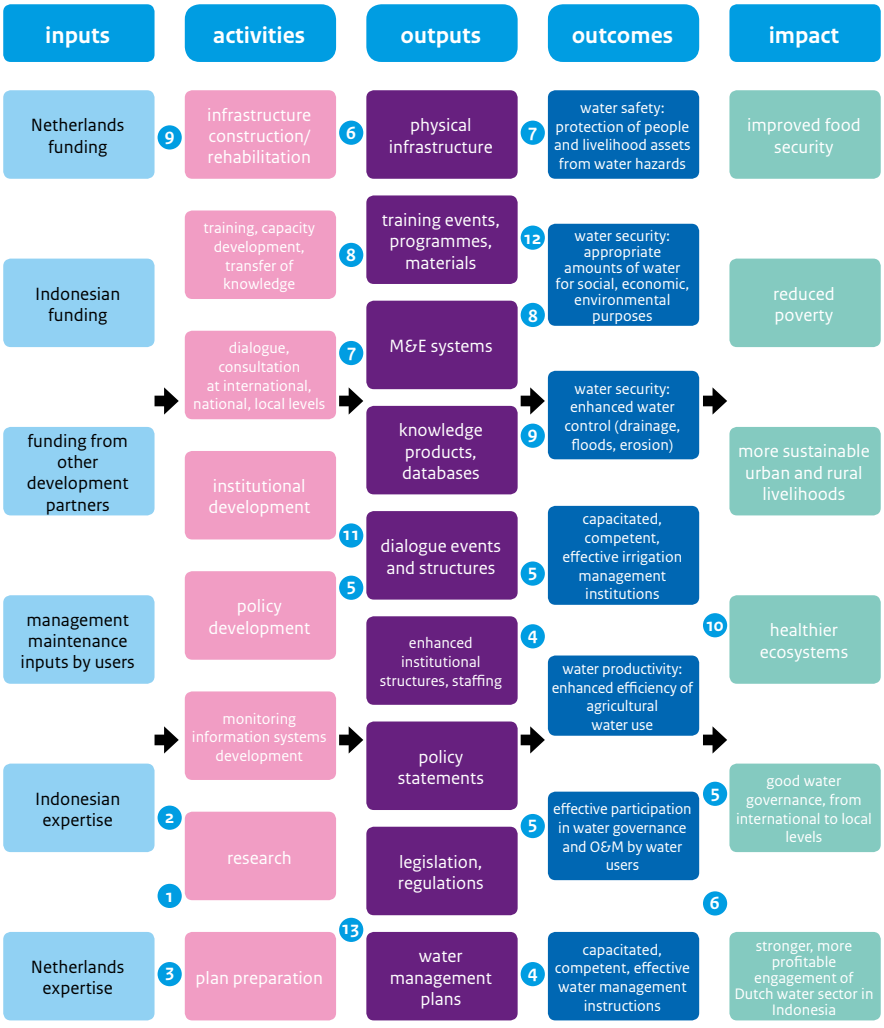
The assumptions identified within the ToC are shown below. They are shown on the ToC diagram as small numbered circles. The positioning of these assumptions in the ToC is schematic and simplified; in some cases, the assumption pervades the entire logic chain, and in others it can be placed at several 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 Indonesia is that Dutch expertise can add value and fill gaps in locally available knowledge and expertise.
2. A related assumption is that Dutch and Indonesian 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. A further, related assumption – vital to the economic ambitions of Dutch policy for Indonesian water management – is that the Dutch private sector has the appetite to engage in the Indonesian market, and vice versa.
4. 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.
5. Linked to this is the assumption that it is socially and institutionally feasible to achieve significant improvements in the quality (including the transparency) of Indonesian water management institutions. Institutional feasibility includes capacity and structural factors in the relevant Indonesian agencies.
6. 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.
7. From the technical perspective, the ToC assumes that the paradigms and approaches for water management that the Netherlands promotes and supports in Indonesia are in fact relevant.
8. The consequent assumption is that the techniques used in Netherlands-supported water management interventions are feasible, practical and affordable in Indonesian conditions.
9. As the policy emphasis on Dutch private sector engagement and aid and trade modalities grew, the assumption for Indonesia was that such engagement was relevant and could be effective for achieving the objectives of water management interventions.
10. As the concepts of 'working with nature' became increasingly prominent in Netherlands water management policy, it was assumed in the Indonesia logic chain that ecological approaches and targets could be effectively integrated into the strategies and objectives of the interventions.
11. 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 Indonesia, this required the assumption that this suite of methods and tools were relevant, complementary, effective and efficient.
12. 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 and are allowed to contribute in a meaningful way.
13. All development efforts in Indonesia must assume that natural disasters during their implementation period will not significantly affect their progress and performance.

Covering a complex, extended set of interventions, this single ToC diagram only offers a summary presentation of design over the 11-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.

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



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 11-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 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 Indonesia;
- interviews and focus group discussions in Indonesia and the Netherlands with a wide range of informants, participant and beneficiaries (listed at Annex 3). Informants were selected in consultation with stakeholders in Indonesia 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.

The overall ToR for this policy evaluation (IOB, 2016) state that a number of in-depth studies form part of the exercise. Two of these concern water management activities in Indonesia. IOB undertook an impact study of the **Participatory Irrigation Sector Project** (PISP) and **Water Resources and Irrigation Sector Management Programme** (WISMP) in

collaboration with the Independent Monitoring and Evaluation Department (IMED) of the ADB. This country study has been able to refer to IOB's findings (Schenk & Heun, 2017). The second subject selected for particular attention is the **Jakarta Coastal Development Programme** (JCDP) and the various studies and activities that the Netherlands funded during the review period to help tackle flooding and related water management problems in Indonesia's capital. As IOB did no separate study of these activities, as much time as possible was devoted to them during the field mission (section 1.4 below).

1.4 Country study activities

The main activities of the evaluation team[4] 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 Indonesia (23 January -10 February 2017), comprising a series of meetings with stakeholders and site visits in Jakarta, and visits to Semarang;
- preparation of this country report.

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

2

Context

2.1 Indonesia: economy, society and environment

With a population of approximately 260 million (the annual population growth rate has now fallen to 1.2%), Indonesia is the largest economy in South East Asia and has the largest Muslim population of any country in the world. Spread across 17,000 islands that extend over 5,000 km from west to east, it is a nation of great ethnic and environmental diversity.

Over the last 100 years, Indonesia has experienced much turbulence and change. Centuries of Dutch colonial rule were ended by Japanese invasion and occupation during World War II, followed by an independence struggle that led to formal recognition of Indonesian independence by the Netherlands in 1949. The country was hit harder by the financial crisis of 1997 than any other Asian country. A period of political and administrative reform followed, along with strong economic recovery.

Governance and administration challenges remain significant in Indonesia. Along with Albania, Algeria, Egypt, Morocco, Peru and Suriname, the country ranked joint 88th on the Transparency International Corruption Perceptions Index for 2015 (Transparency International, 2016a). In 2005, again with a group of other countries, it was placed joint 137th (Transparency International, 2016b). Corruption, collusion and nepotism (KKN[5] in Indonesian) are a widespread concern. Indonesia ranked 128 out of 185 countries in the 2013 Ease of Doing Business Report (EKN, 2013, p. 4), moving up to 109 out of 189 in the 2015 survey (World Bank, 2016b). While Indonesia has become 'a stable democracy and an open pluralistic society' since 1998 (EKN, 2013, p. 5), the massive process of decentralisation launched by the enactment of the Governance and Fiscal Balance Law in 1999 (revised in 2004: Fadliya & McLeod, 2010) created new challenges for the consistent implementation of policy and programmes, with slow institutional development and persistent capacity problems in local government structures.

Indonesia was recognised as a middle-income country in 2008, although multiple economic challenges remain, and growth in gross domestic product has been slowing since 2012. It is now the world's tenth largest economy in terms of purchasing power parity, with a gross national income per capita that has risen from USD 560 in 2000 to USD 3,374 in 2015. But some 11% of the population still live below the poverty line, and about 40% are clustered around that line (USD 22.60 per month; World Bank, 2016a). Indonesia was ranked 113 out of 188 nations on the UN Human Development Index (HDI) for 2016, close to the top of the 'medium human development' group and up three places from the year before. Between 1990 and 2000, its HDI rose by an annual average of 1.36%; slowing to 0.92% in 2000-2010 and 0.78% in 2010-2015. (For Vietnam over the same periods, the rates of increase were 1.92%, 1.29% and 0.85%; UNDP, 2016, pp. 199, 201).

On the UN's Gender Development Index for 2015 (calculated as the ratio of female to male HDI values), Indonesia scored 0.926, above the average of 0.871 for the 'medium human

5 Korupsi, kolusi, nepotisme.

development' group but with an estimated gross national income per capita (2011 purchasing power parity) of USD 6,668 for females and USD 13,391 for males (UNDP, 2016, p. 211).

Indonesia's natural environment presents a rich spectrum of biodiversity and is challenged by multiple threats, in addition to the country's vulnerability to seismic and volcanic activity. Like other dimensions of sustainable development, these challenges are harder to tackle in the context of decentralisation. Deforestation and the degradation of peatlands are harming the local and natural environment and are a major factor in the air pollution affecting Indonesia and its regional neighbours. Indonesia is reportedly the world's fifth largest emitter of greenhouse gases (WRI, 2017).

2.2 Water management challenges in Indonesia

Reduction in the vegetation cover of catchments, often linked to urbanisation and expanded agricultural land uses, has adverse consequences for water resource management, often leading to more frequent flooding. In urban areas, most notably Jakarta, inadequate sanitation arrangements cause major public health hazards in addition to polluting freshwater and marine resources. Intensive and accelerating abstraction of groundwater resources, especially but not only in Jakarta, is causing land subsidence that exacerbates flooding risks.

For obvious geographical reasons, coastal management is a significant theme among the many environmental challenges that Indonesia faces. It was manifested most tragically, in recent times, by the tsunami of 26 December 2004 that caused widespread death and destruction and ruined hundreds of thousands of livelihoods in Aceh province. More gradual but at least as threatening to livelihoods and the national economy is the growing reality of subsidence and coastal flooding in the nation's capital, Jakarta. Meanwhile, optimum water management – sometimes including irrigation – is vital for Indonesia's food security, as it seeks to feed its large population.

The history of water management policy, institutions and planning in Indonesia is complex. A Water Resources Law of 2004 was followed by Regulations in 2006 to define mandates, roles and responsibilities. They are further interpreted by decrees that may be issued at various levels of government, and their actual implementation depends on budget allocations and disbursements that are variously defined and negotiated in ways that cannot be fully predicted from year to year or from one part of the system to another. At the time of recent research for IOB's impact studies of irrigation projects in Indonesia (section 1.3.4 above), the validity of the 2004 law was under review after it had been struck down by the Constitutional Court (section 3.2.4), although this was not thought likely to have immediate practical implications for the operation of irrigation organisations at field level. Achieving consistent good governance across the water sector is an ongoing challenge.

A recent overview of joint approaches by Indonesia and the Netherlands to challenges in the water sector (NWP, nd[6]) identified three thematic areas.

- **Water management and water safety:** in aggregate, Indonesia has more than enough water. But it is mostly in the less populous parts of the country, whereas Java and Bali suffer water deficits. Meanwhile, floods are common: each year, on average, 150,000 people need to evacuate their homes, and 11,000 of those homes are damaged, with hundreds of deaths caused by flooding. Related environmental challenges to water management include erosion, land subsidence and the depletion of groundwater resources.
- **Water for food and ecosystems:** having slipped into deficit with its staple food commodity, rice – of which it must now import large quantities – Indonesia urgently needs to sharpen its strategies to achieve 'more crop per drop', against the background of its longstanding efforts to promote participatory water and irrigation management. This will require stronger performance with regard to environmental sustainability: aligning agricultural, economic and environmental targets and achieving them all. The 'connection between water and agriculture is central… there is a growing awareness that nature and agriculture can go hand in hand' (NWP, nd, p. 27).
- **Access to drinking water and sanitation:** especially in the most densely populated parts of the country (Sumatra and Java) supplies of clean drinking water are inadequate, as are sanitation services. There are major adverse consequences for human health and for the natural environment. This third theme falls outside the current evaluation, having been addressed by IOB's earlier study of drinking water and sanitation programmes (IOB, 2012).

As noted in section 3.1.1, the most recent memorandum of understanding (MoU) between Indonesia and the Netherlands also specified these three main thematic concerns, adding two cross-cutting ones: water and climate, and water governance.

2.3 Netherlands aid policy for improved water management

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

Dutch policy for improved water management evolved over the review period[7]. 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

[6] nd: not dated.

[7] EQ1 is answered here with regard to Dutch policy in general, and in section 3.2.3 with reference to the rationale for assistance in Indonesia.

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, pp. 5, 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 Indonesia?

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 the Environment with the participation of the Ministry of Economic Affairs, Agriculture and Innovation and the MFA, financed from the Integrated International Co-operation Group[8] and contributing to improved water management in five delta countries (Bangladesh, Egypt, Indonesia, Mozambique and Vietnam)[9], 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

[8] '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, 2016a). Technically, therefore, this evaluation and its country case studies must look beyond Netherlands aid (ODA) policy and funding.

[9] Colombia and Myanmar were added later.

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 Indonesia country study, therefore make due reference to these other programmes and activities.

By the end of the review period, the concept of 'aid policy' had thus become too narrow a perspective on the Netherlands' mode of engagement with developing and transitional countries in the field of water resource management. This was particularly clear in the 2016 International Water Ambition (IWA), a joint statement by the MFA, the MIE and the Ministry of Economic Affairs (MEA) that called for 'a holistic international approach combining diplomacy, innovation, partnerships and new funding mechanisms' to tackle 'the scale, urgency and complexity of the water challenges the world faces' (MIE, 2016, p. 4). The IWA emphasised the intended roles of Dutch water authorities, water supply companies, the Rijkswaterstaat public infrastructure organisation and the RVO. It stated that existing policy (such as the policy letter quoted above) remained valid and quickly acknowledged the need for 'connections with policy on agriculture/food, maritime issues, energy and climate', but then moved directly to focus on one challenge: 'urban deltas all over the world face major, urgent risks associated with water security' (MIE, 2016, p. 5). Its main goal was therefore 'to enhance water security in urban deltas and to increase the Netherlands' contribution to these efforts (2016-2021)' (MIE, 2016, p. 9). 'Contribution to' can also be read, of course, as 'commercial engagement in' efforts to enhance water security in urban deltas. Significantly also, the first of the three IWA 'pillars' is promotion of the Netherlands as 'a centre of excellence for water' – a clear statement of the intention to build Dutch 'soft power' in the sector (MIE, 2016, p. 11).

3

Findings

3.1 Dutch assistance to water management in Indonesia

3.1.1 Rationale

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

In response to the interest expressed by the GOI for cooperation in this sector, the overall rationale for Netherlands assistance to water management in Indonesia was supplied by Dutch global development co-operation policy, as well as evolving aid policy for improved water management (section 2.3 above[10]), 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).

In a letter to the Dutch Parliament dated 19 September 2016, the Minister for Foreign Trade and Development Co-operation noted that Indonesia was one of the Netherlands' 'partner countries' with which it now had a 'transitional relationship', in which both aid and trade played roles, with the latter increasingly important. She stated that, of the partner countries, Indonesia had achieved by far the most development. Along with Kenya, it would be removed from the 'partner list' in 2020 (MFA, 2016). This is the latest step along the long and sometimes bumpy road of Dutch development assistance to Indonesia, which was suspended at the request of Indonesia in 1992 after the Netherlands had halted new aid to it

[10] EQ1 is answered here with regard to Dutch policy in general in section 2.3, and is discussed here with reference to the rationale for assistance in Indonesia.

in response to events in East Timor in 1991. Development co-operation resumed in 1999, but with a lower profile than before. By 2008, early in the period covered by this evaluation, the EKN was reporting improved, more intensive bilateral relations (EKN, 2008, p. 7). By 2010, it was pursuing an expansion strategy that put increasing emphasis on economic co-operation and business opportunities, both within the development assistance programme and outside it. The budget for development co-operation had been reduced from EUR 109 million in 2009 to EUR 57 million in 2010 (EKN, 2011, p. 1).

At the start of the review period, the annual plan of the EKN in Jakarta stated that 'in 2006, the water programme is running at full speed'. The emphasis at that stage was on 'integrated water management, public-private partnerships, improving access to drinking water and sanitation and the reconstruction in Aceh' (EKN, 2006, p. 11). A group of experienced Dutch informants for this review put it differently. In 2006, they said, decentralisation had resulted in a weaker central government and ineffective water management at many levels. But, according to them, the engagement of the Dutch water sector from 2007 began to turn the situation around.

The EKN's multi-annual plans (EKN, 2008; EKN, nd(a); EKN, 2013 – see box below) provided a more detailed rationale for Dutch engagement in Indonesia. The 2008-2011 and 2012-2014 documents' approach to water management was influenced by the Netherlands' National Water Plan, 2009-2015 (GON, 2009), chapter 6 of which dealt with the country's international activities in the water sector. The plan proposed a multi-stakeholder approach that stimulated the engagement of the Dutch private sector and knowledge institutions, complementing ongoing bilateral development assistance and differentiating the development status of partner countries (fragile, least developed and transitional), their access to local water expertise and the market opportunities they might offer to Dutch businesses. It was built around the theme of the Netherlands as a delta country developing long-term (ten- to 20- year) partnerships with other selected 'delta countries', including Indonesia with its Jakarta delta. It noted that Indonesia, like the Netherlands, is faced with growing flood and drought challenges as a result of climate change; with problems of rising sea level and ground subsidence a particular problem in low lying areas.

The MASP for Indonesia, 2008-2011, noted the need for an integrated approach to spatial organisation in which water and forest management initiatives should be complementary – with river basin organisations, responsible for IWRM, playing a co-ordinating role. Like the National Water Plan, it pointed out the challenges of rising sea level and greater variation in rainfall, both linked to climate change. It called for a focus on capacity development and improved facilities for river basin management organisations and participatory management; and for the sustainable development of low-lying areas in order to assure food security. Among the MASP's performance indicators were the effective, participatory operation of river basin management organisations; and enhanced irrigation efficiency with active involvement of water user groups. This MASP included a commitment to focus less on multilateral activities and more on a bilateral approach, although some existing multilateral commitments continued.

For some years now, there has been no development co-operation section at the EKN in Jakarta; those activities are handled by the Economic Affairs department (EKN, 2008, p. 8). The EKN no longer produces a Multi-Annual Strategic Plan (MASP) to guide its development co-operation activities, as is the practice in countries like Bangladesh and Mozambique. Instead, 'the policy priorities and ambitious goals of the Dutch government for Indonesia are set out in the so-called Multi-Annual Policy Framework 2012-2015 (MIB). The Embassy in Jakarta does not have a separate... MASP, as its development co-operation policy is an integral element of the wider objectives of the MIB' (EKN, 2013, p. 2). An MIB combines the strategic objectives of more than one ministry of the GON, whereas a MASP concerns the plans of the MFA only. Confusingly, however, the MIB for 2012-2015 was titled a MASP (EKN, nd(a)). In 2013, the EKN then produced what it called a MASP, subtitled an 'update development co-operation of the Multi-Annual Policy Framework'. 'The request [by the MFA] to revise the MASP was ... understood to mean a revision of Chapter 4 of the MIB' (EKN, 2013, p. 2).

In a meeting in 2010 of the Joint Steering Committee for the four-party intergovernmental MoU (4P-MoU; see below), the Netherlands informed Indonesia that, in implementing the international component of its National Water Plan, it intended to 'cooperate closely with 5 'Delta countries', of which Indonesia is one. In this so-called 'Water Mondiaal' program, cooperation will focus on 'Delta Management'; Water and Safety, Water for Food and Ecosystems, Water and Sanitation and Climate Change Adaptation. Capacity building and institutional development related to the water sector, will be given special attention' (GOI & GON, 2010, p. 2).

The MIB for 2012-2015 stated that Dutch bilateral co-operation with Indonesia in the water sector was guided by the interdepartmental Water Mondiaal policy framework, and increasingly integrated the activities of both countries' national and local governments, private sectors, knowledge institutions and NGOs – all aimed at solving the water sector challenges of Indonesia and strengthening the position of the Netherlands in Indonesian water management. It noted that in the fields of urban flooding and lowland management, the bilateral programme was well defined. In other fields, such as irrigation, IWRM and institutional development for water management, existing multilateral activities to which the Netherlands had contributed (notably the Participatory Irrigation Sector Project (PISP) and the Water Resources and Irrigation Sector Management Programme (WISMP)) were concluding, creating opportunities for new strategy and a greater emphasis on bilateral co-operation (EKN, nd(a); EKN, nd(b), p. 4).

The MIB went on to specify three main thematic areas within the water sector on which Dutch co-operation with Indonesia would focus (along with two cross-cutting themes) – all in conformance, it said, with the thematic choices made by Water Mondiaal. These were:

- water safety, with an emphasis on flood prevention and control in the urban areas of north Java (especially Jakarta and Semarang);
- water and sanitation;
- catchment management and capacity development, whose purpose was stated to be 'capacity strengthening for water management in Java, in particular around Jakarta' (EKN, nd(a), p. 8).

The 2012-2015 MIB placed support for enhanced irrigation in the 'agro-food, food security and sustainability' result area. Under the subheading 'water, food and ecosystems', it described 'reform of the irrigation sector' as one of the elements, and said that the EKN would decide in 2012 whether to continue support in the field of irrigation (EKN, nd(a), pp. 8-9). The Embassy's annual report for 2012 does not mention any such decision. Its annual plan for 2013 refers to a 2012 evaluation of Dutch support to irrigation, whose findings were awaited as the basis for possible further collaboration with the ADB on a second phase of the PISP. That evaluation was not carried out; but Table 3.1 below shows Netherlands support in 2013-2014 for preparation of an Indonesia Irrigation Sector Project (IISP) by the ADB. Data on the implementation of this activity are not yet available. According to informants, it was indeed decided not to continue support for irrigation. This was linked to a decision not to engage in further co-financing of multilateral projects, and a view that the Netherlands' comparative advantage was not strongest in the irrigation sector. Limited support continued to be given in technical niches where the Dutch could make valued specialised inputs, such as spatial planning linked to hydrological monitoring.

An annex to the 2012-2015 MIB categorised interventions in the water sector differently. It stated that 'the theme (and spearhead) Integrated Water Resources Management in Indonesia comprises a number of sub-themes (and related sectors). Main axis for this analysis is the themes of the comprehensive Netherlands policy framework Water Mondiaal'. These interventions had a dual purpose: 'Improved management of Indonesia's water resources with optimal impact on development, poverty reduction and economic growth' and 'Strengthened position of Netherlands organisations and companies in the water sector and market in Indonesia (and indirectly world wide)' (EKN, nd(b), p. 1). The thematic categories were:

- water security – concerned with the vulnerability of rural and urban areas to floods and water scarcity, linked in urban areas to ground subsidence and water quality issues;
- water, food and ecosystems, with a focus on institutional development for irrigation;
- drinking water and sanitation;
- IWRM, again focusing on institutional development.

Water governance and climate change were identified as crosscutting themes.

In 2013, the EKN interpreted a request from The Hague to revise its MASP as a request to revise chapter 4 of its 2012-2015 MIB, which dealt with development co-operation – since, as noted

above, it did not have a MASP per se (EKN, 2013, p. 1). The 2013 document sums up the directions and emphases of Dutch policy for Indonesia towards the end of the review period:

'The following vision emerges for the bilateral water cooperation in 2020:

a) The majority of Dutch activities in the Indonesian water sector will be based on private sector (private-private) projects, focused on urban areas and densely populated rural areas in particular on Java and Bali. These projects address delta technology, maritime construction, effluent water management and purification and drinking water supply…

b) In 2020, government to government cooperation will focus on supporting the strategic, policy and knowledge frameworks for the Indonesian water sector and broad based bilateral cooperation (private to private, knowledge to knowledge).

Dutch and Indonesian central governments, with the assistance of knowledge institutions and private sector will jointly develop the strategic, policy and institutional contexts for large scale programs in delta and water management. The Netherlands advises on policy and technical matters. From time to time partnerships will be formed with third parties – bilateral and multilateral – to provide leverage, financing and/or additional capacity. Seven years from now, the government to government cooperation will require modest funding volumes and be financed from non ODA funds.' (EKN, 2013, p. 6)

Proposed activities in the water sector for 2014-2017 were categorised as follows:
- water and safety, including completion of Dutch support for the National Capital Integrated Coastal Development (NCICD) programme and the Semarang Banger project;
- water, food and eco/river basin systems, including support to the formulation of a major new IISP (see above), to be funded by the ADB;
- sanitation and waste water treatment;
- capacity development, including the Joint Co-operation Programme between knowledge institutions (see Table 3.1 below) and the Young Professional Development Programme in the Ministry of Works.

In 2013, the two countries signed a Joint Declaration on a Comprehensive Partnership which 'reaffirms the intention for close cooperation between Indonesia and the Netherlands on a wide range of policy areas such as foreign policy, peace and security, human rights, sustainable development, economic partnership, and cooperation on social, cultural and education [programmes]' (EKN, 2013, p. 3). This committed their governments to 'further strengthen ongoing co-operation' in various fields, including water management (GOI & GON, 2013, p. 4). It reflected the longstanding belief in what the EKN had earlier called the Netherlands' 'added value in the water sector… particularly in integrated water management, flood control and the problems of low-lying areas that are strongly linked to climate [change] adaptation and mitigation' (EKN, 2011, p. 6).

This joint declaration pursued a shared interest in water sector collaboration that had been expressed in four-party memoranda of understanding (4P-MoUs, signed by two ministries on each side) between the two governments in 2001 and 2006 (Van der Kerk et al., 2013, p. 3)

and was repeated in the MoU for 2012-2015. In that last MoU, water management, for various purposes linked to water and food security and water safety, was the main focus for co-operation (GOI & GON, 2012, np[11]). Indonesia and the Netherlands signed another MoU in 2015, to cover a further five years. It specified the areas of co-operation as including, but not limited to: (a) IWRM, water security, safety and quality, flood and urban drainage management (including NCICD), inland waterways, ports and coastal development, groundwater management; (b) water supply and sanitation; (c) water for food and ecosystems, including coastal protection and revitalisation; (d) water and climate and (e) water governance and capacity building.

In aggregate, these extracts from the MASPs for the review period show a triple rationale for Dutch support to water management in Indonesia. First, addressing the many weaknesses in the sector was a central strategy for improving the living standards of Indonesians. 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 Indonesia. Given the timing, it is understandable that the 2015 Sustainable Development Goals (SDGs), to which both countries have committed themselves along with the rest of the United Nations, were not mentioned. The question at the end of the review period was whether they should receive more emphasis as a guiding framework for improving water resource management in Indonesia.

3.1.2 Modalities, instruments and mechanisms

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

The Netherlands used several modalities, instruments and mechanisms in its support to water management in Indonesia. 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, followed three implementation arrangements.

[11] np: no page number.

- The EKN made implementation arrangements with consulting companies, knowledge institutions such as Deltares, or Dutch water authorities. The Netherlands provided all or most of the funding. Supplementary amounts were provided in some cases by the implementing agency, the GOI, the Jakarta Special Capital Region (DKI), Netherlands water sector stakeholders or, in one case PvW (when funds from the delegated budget were used to supplement insufficient PvW resources).
- Dutch funding was part of a larger resource package developed by an international finance institution (IFI). There were three such projects during the review period. At appraisal, the Netherlands committed USD 15 million to the total USD 126 million budget of PISP. It committed USD 5 million to the total USD 15 million technical assistance budget for the IWRM Citarum project, also managed by the ADB. Finally, it committed EUR 14 million to the total EUR 133 million budget of the WISMP project, through the World Bank.
- In the latter part of the review period, the MFA made increasing use of RVO as an implementing agency and administrative channel for activities funded through the EKN's delegated budget. This was done particularly for work associated with Jakarta flood management and water management infrastructure: two activities for preparation of the Jakarta Coastal Defence Strategy (totalling EUR 4 million), and two activities providing consultancy services for NCICD II (totalling EUR 6 million[12]). The delegated budget also funded the position of Delegated Representative for bilateral co-operation in the water sector, managed through the RVO.

Partly under pressure from budget cuts, Dutch policy 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. Contributions to IFI activities were one example of partnering arrangements; funding through PvW sometimes supported pilot activities. In the long and complex history of support to water management in Jakarta, pilot and partnering strategies were combined.

The largest funding allocations made during the review period were the contributions to IFI-managed projects. Although there were only three such projects, they made up 48% of the total budget commitment of EUR 55 million shown in Table 3.1 below. Use of the delegated budget via RVO totalled 22% of the overall commitment. Approximately half of the remaining 30% was committed to the Aceh Nias sea defence activity early in the review period – reportedly the first major bilateral project following a period of caution in the early 2000s (after the difficult relations of the 1990s) when most Dutch support was through co-financing with IFIs. Most of the other activities directly managed by the EKN had budgets under EUR 1 million, with the exception of the Ex-Mega Rice Project (EMRP, also early in the review period) and the EUR 1.275 million contribution to the Joint Co-Operation Programme (JCP) Phase II – a subsidy to Deltares, which administered the activity[13].

[12] This comprises Activity no. 28427, NCICD Phase II General Consultant (EUR 4 million), and Activity no. 28888, Procurement and Business Development Consultant to NCICD2 (EUR 2 million). The latter (28888) is not classified in the MFA's Piramide database as a water management activity and therefore does not appear in Table 3.1.

[13] For JCP Phase I, see section 3.2.5.

In contrast to earlier arrangements, the review period thus shows the MFA's ODA budget for Indonesia moving largely outside direct MFA/EKN management, with the EKN ceasing to have a development co-operation section (see box secion 3.1.1).

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 Indonesia. These activities are summarised in Table 3.2, which follows the overall classification of activities adopted by this policy evaluation (as outlined in section 1.1 above) and includes summary comments based on informants' views and the evaluation team's interpretation. Additional detail is given in Table III.3 at Annex 3.

The Sustainable Water Fund (FDW), a public-private partnership initiative funded by the MFA and administered on its behalf by RVO, supported two activities in Indonesia during the review period, of which one concerned drinking water and sanitation. The other was a EUR 3 million commitment to the Building with Nature project on the north Java coast (section 3.2.1).

Outside the direct responsibility of the MFA, other funding instruments linked to the Water Mondiaal initiative were available to support improved water management in Indonesia. 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 (usually but not always smaller) for commissioned activities, such as exploratory missions to develop linkages between the Dutch water sector and counterparts in Indonesia. Table III.4 at Annex 3 lists the 38 PvW subsidies and commissions used to support water resource management work in Indonesia during the review period, with a total commitment of EUR 6.8 million and recorded disbursements of EUR 6.0 million. The evaluation team was unable to find complete information on all these activities, but the table includes summary comments based on interviews and the team's qualitative assessment. PvW was used significantly more in Indonesia than in the other countries selected for focused review by this evaluation. Some of the PvW commissions in this country were for amounts approaching EUR 1 million, for example to support work on the Jakarta Coastal Defence Strategy (JCDS) or the Quick Assessment and Nationwide Screening (QANS) project on peat and lowland resources.

The Facility for Infrastructure Development (ORIO), administered by RVO, was superseded in 2015 by the Development Related Infrastructure Investment Vehicle (DRIVE). Only one planned use of ORIO to support water management has been identified in Indonesia during the review period: a grant of EUR 3.5 million for the Banger polder project (section 3.2.1). However, the grant was not used. It reportedly carried conditions that the GOI was unwilling to accept, deciding to provide its own funding instead.

While section 3.1.3 below presents details on water management interventions in Indonesia during the review period, it may be helpful at this point to consult a different tabulation prepared in 2016 by the office of the Netherlands Delegated Representative to the water

sector there: Table III.2 at Annex 3. This table includes water supply and sanitation activities that are not covered by this evaluation, but is useful because it shows the main implementing agency for each activity as well as the financing instruments in use.

Although this country study finds that the expanding set of modalities and mechanisms available for Dutch support to water management was successfully applied in Indonesia during the review period (section 3.3.1), the consensus is that, overall, they are too complicated to be fully fit for purpose. A small team of expert managers, within which the EKN continues to play a key role, are able to fit the funding opportunities and instruments together constructively, but this requires substantial administrative effort and leaves many stakeholders bemused or confused. Indonesia was not the first country where the evaluation team encountered particular frustration with the complexities of ORIO, but the challenge spans much more than just that instrument.

During the review period, delegated funding through the EKN remained by far the largest modality, in budget terms, although most of the money was no longer managed through conventional ODA modalities (i.e. Dutch-funded projects directly supervised by the EKN) and MFA policy elements were increasingly merged with the policy of other GON ministries. As policy converged, the modalities and instruments did not. One senior informant said that 'the instruments are a mess', but feared that there was no easy way to rectify this, because so many GON agencies and interests were involved.

3.1.3 Water management interventions in Indonesia

EQ 5: What were Netherlands expenditures on water management activities in Indonesia, 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 Indonesia 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 55 million. Total Dutch expenditure on these activities over the period was EUR 47 million. The difference is partly because some of the most recent projects still have several years to run, and some of the older ones incurred expenditures before 2006. In other cases, design and implementation issues discussed later in this report contributed to the underspend. Total expenditure per year ranged from EUR 1.2 million in 2015 to EUR 8.7 million in 2009.[14]

[14] Total expenditures in 2006 and 2007 are not considered here, as the review's database of activities excludes 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. The table shows those activities classified in Piramide with a 'water management' code.

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 Indonesia during the review period, set out according to the revised and more detailed categories. To assist cross-country comparison, it shows all these categories, including those to which no Indonesia activities were assigned[15]. 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[16]); measures to promote GEEW; and sometimes broader rural and agrarian development initiatives.

Table 3.1 Water management projects: delegated funding, 2006-2016

No.	Project Name	Start	End	Project budget EUR	Expenditures 2006-2016[17] EUR
Water management in agriculture					
	Agricultural development				
1735	Participatory Sector Irrigation Project (PISP)	Jan 04	Dec 12	11,431,500	11,016,500
25437	Indonesia Irrigated Sector Project (IISP)	May 13	Dec 14	1,164,000	1,164,000
28428	Water Availability (WAMI)	Feb 16	Oct 16	225,000	150,000
Sub total				**12,820,500**	**12,330,500**
% of total				**23%**	**26%**
	Water productivity				
Sub total				**-**	**-**
% of total				**-**	**-**
(Sub) national water management					
	(Sub) national water management planning				
15702	Master Plan EMRP	Mar 07	Jul 08	1,982,396	1,982,396
Sub total				**1,982,396**	**1,982,396**

[15] Table III.1 at Annex 3 presents the same list of projects in chronological order of start date.

[16] 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.

[17] Note that some projects spent some of their total budgets before 2006. Others that started recently will continue to disburse after 2016.

Table 3.1 Water management projects: delegated funding, 2006-2016					
No.	**Project Name**	**Start**	**End**	**Project budget EUR**	**Expenditures 2006-2016[17] EUR**
% of total				**4%**	**4%**
	(Sub) national water management implementation				
	(River) basin management				
2263	Water Resources and Irrigation Sector Management Programme (WISMP), Phase I	Jul 03	Dec 10	10,894,683	9,649,683
18452	IWRM Citarum	Dec 08	Dec 12	4,263,520	4,263,520
24620	Banger polder	Oct 12	Jun 16	165,000	156,750
Sub total				**15,323,203**	**14,069,953**
% of total				**28%**	**30%**
	Coastal development				
12915	Aceh Nias SD Consultancy	Mar 06	Mar 09	9,007,907	9,007,908
23583	Jakarta Coastal Dev Strategy	Dec 11	Dec 14	429,213	429,213
24472	Master Planning Jakarta Coast	Nov 12	Dec 14	3,500,000	3,500,000
28427	Consultant NCICD-II	Jun 16	Jun 20	4,000,000	300,000
28449	NCICD II Knowledge Management	Jul 16	Nov 19	1,500,000	150,000
Sub total				**18,437,120**	**13,387,121**
% of total				**33%**	**28%**
	Disaster management				
18187	Dredging pilot Jakarta	Jul 08	Oct 09	2,472,117	2,472,117
26619	Rotterdam-DKI Jakarta Training Programme (DUTEP I)	Aug 14	Jun 17	324,607	292,146
29379	DUTEP II	Dec 16	Jun 20	330,149	124,745
Sub total				**3,126,873**	**2,889,008**
% of total				**6%**	**6%**
Transboundary water management					
Sub total				**-**	**-**
% of total				**-**	**-**
Cross-cutting policy themes					
	Climate				
Sub total				**-**	**-**
% of total				**-**	**-**
	Good governance				
Sub total				**-**	**-**
% of total				**-**	**-**

Table 3.1 Water management projects: delegated funding, 2006-2016					
No.	**Project Name**	**Start**	**End**	**Project budget EUR**	**Expenditures 2006-2016[17] EUR**
	Gender				
Sub total				**-**	**-**
% of total				**-**	**-**
	Environment				
Sub total				**-**	**-**
% of total				**-**	**-**
Across water management themes					
26606	Joint Cooperation Programme II	Jan 14	Jun 15	1,525,000	1,448,750
27230	Delegated Repr. MoU Water	Nov 13	Nov 17	1,800,000	1,052,146
28426	Dutch Water Authorities	Jul 16	Jul 20	200,000	47,500
Sub total				**3,525,000**	**2,548,396**
% of total				**6%**	**6%**
Total			**EUR**	**55,215,092**	**47,207,374**

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 Indonesia – most notably its capital, Jakarta. 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.

Table 3.1 shows that (sub) national water management planning received 4% of the total delegated budget allocation over the review period, while 67% of the total delegated budget was allocated to (S)NWM implementation. The broad category of water management in agriculture received 23% of the total delegated budget, with no activities classified in the more focused 'crop per drop' category. Finally, 6% was allocated to cross cutting policy themes.

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 Indonesia. Table 3.2 below summarises these activities: additional detail is given in Table III.3 at Annex 3. 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 Indonesia. They combine information obtained before the country 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, and the perceived significance of these activities for the Indonesia water management portfolio, varied. 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 Indonesia. Nor do available data permit analysis of these activities by water management policy objective or by area within Indonesia where activities may have been supported.

Some of this central funding was a Dutch contribution to programmes of international partnerships like the Global Water Partnership. Others were initiatives of Dutch organisations, 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 Indonesia. But some major programmes, such as central MFA funding for the Global Water Partnership and for the International Network for Capacity Development in Sustainable Water Management of the United Nations Development Programme (UNDP: CapNet), appear less significant at present and show little linkage with the delegated programme. Another big global facility – UNESCO-IHE – is still seen as important. It remains central to the theme of Dutch 'soft power' in the water sector to which this evaluation repeatedly refers, as does the newer Young Experts Programme (YEP). UNESCO-IHE celebrated its 60th anniversary in April 2017, has worked in Indonesia for over 40 years and, with at least 800 alumni in the country, is well known and appreciated – although at the end of the review period it was assessing ways to adjust and revitalise its activities in the country.

It is notable that the centrally funded activities include Dutch contributions to the Water Financing Partnership Facility of the ADB and to the Water Partnership Programme of the World Bank, both of which were much appreciated by informants at these IFIs, as flexible instruments that were straightforward to access.

Beyond the direct purview of MFA (as noted in section 3.1.2), the Partners for Water programme supported 38 activities in Indonesia during the review period: see Table III.4 in Annex 3. Section 3.1.2 also notes the one activity that the FDW supported.

Available data do not permit a complete answer to EQ 5. It has been shown that 48% of the delegated budget over the review period comprised contributions to the larger budgets of IFI-funded projects, in which – although the Netherlands retained some technical influence – there was no targeted opportunity for Dutch contractors. At the other end of the spectrum of Dutch engagement, EUR 6.8 million was committed to PvW activities undertaken by Dutch water sector stakeholders (Table III.4), with a further EUR 3 million from FDW. These two amounts combined were still far less than the EUR 55.2 million channelled through the bilateral, delegated budget for activities in which levels of Dutch participation were much more variable. However, the Netherlands water sector remained prominent and active in Indonesia at the end of the review period.

Table 3.2 MFA centrally funded activities with links to Indonesia: summary					
Activity name	**Period**	**Links with other Netherlands-funded activities**	**Implementation**	**Follow up, sustainability**	**Significance for co-operation benefits[18]**
Water management in agriculture					
Agricultural development					
no activities					
Water productivity					
no activities					
(Sub) national water management					
(Sub) national water management planning					
no activities					
(Sub) national water management implementation					
(River) basin management					
no activities					
Coastal development					
no activities					
Disaster management					
no activities					
Cross-cutting policy themes					
Climate (change) adaptation and mitigation					
no activities					

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

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

Activity name	Period	Links with other Netherlands-funded activities	Implementation	Follow up, sustainability	Significance for co-operation benefits[18]
Good governance					
Water Integrity Network	Jul 14-Dec 17	CK-Net, Pattiro research and advocacy organisation	WIN is a network to promote water integrity, to reduce corruption and to improve water sector performance worldwide. Indonesian partners of the network are e.g. CKNET and Pattiro. WIN has one integrated country programme in Indonesia; a pilot of integrity management processes for utilities and river basin organizations, conducted by Pattiro and partners (WIN, 2016). Pilot integrity management process for utilities and RBOs.	Ongoing.	Moderately significant.
Gender					
no activities					
Environment					
Equitable Payments for Watershed Services	Jan 08-Dec 11	Not known.	This initiative from WWF and CARE aims to reduce poverty and increase social justice and equity through watershed conservation. The Indonesia watersheds chosen for this programme are the Upper Kapuas Basin on Borneo and the East Nussa Tenggara on West Timor (Tressierra, 2012).	Not known	Not significant
Across water management themes					
Global Water Partnership activities					
Global Water Partnership/ Water Partnership Indonesia	Jul 07-Dec 17	No	Promotes IWRM, notably through the Indonesia Water Partnership (IWP), established 2007. Many of the IWP's activities concern advocacy, networking and capacity development (IWP, 2016). Results reported by vice chair IWP as not so good/ mediocre; driven by GWP requirements – prepared country report/ road map to IWRM; no Dutch EKN support, not familiar and no interaction with NWP network or Dutch consultants.	Continues with small funding contribution of GWP, has office in MPWH, as has the South East Asia office; depends on relation with government; NGO involvement at times sensitive.	Not significant.

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

Activity name	Period	Links with other Netherlands-funded activities	Implementation	Follow up, sustainability	Significance for co-operation benefits[18]
Knowledge institutions' activities					
CapNet	Jan 01-Dec 15	CK-Net – Initiated from UNESCO IHE meeting with global partners in view of capacity building needs; Nuffic funded NPT project to set up CK.NET.	Funded by the Netherlands and Sweden, the UNDP International Network for Capacity Development in Sustainable Water Management supports 'the South East Asia Regional Network for Capacity development in IWRM aiming to enhance the capacity in IWRM in its region through support for training, education, research and development, and outreach by sharing complementary expertise and resources.' Also CapNet supports CK-Net, 'a national network of Indonesian universities' (Cap-Net, 2015, p. 52). Global network, outreach through policy briefs, training etc.; has modest institutional set up. Original idea to become think tank for Indonesia; now network of Indonesian universities (10,000 admin, 8,000 regular meetings).	CK-Net ongoing with CapNet funding, 34 members, focus on RBO professionalisation in water and environment (training modules), also supported by WB.	Not significant.
Urbanising Deltas of the World	Oct 12-Dec 18	One project adaptive delta management Bangladesh and Indonesia – GOI research department and UNESCO-IHE involved in regional exchange meetings	This is a research programme co-ordinated by the Netherlands Organisation for Scientific Research (NWO), funding work by north-south consortia. The first call for proposals resulted in one grant for Indonesia. The project's design was on Adaptive delta management: development, accumulation, and dissemination in Bangladesh and Indonesia (NWO, 2016).	Ongoing.	Potentially significant.
Programmatic Support for UNESCO-IHE (Partnership for Water Education)	Jan 02-Dec 20	CapNet, Urbanising Deltas, works with international range of partners including DGIS, ADB, Deltares	Through DUPC (DGIS - UNESCO-IHE Programmatic Co-operation), support is provided for UNESCO-IHE activities in many countries – including several in Indonesia. 800-900 alumni, diploma courses and about 250 Master's, many working in government and other organisations, projects etc.; involved in various research, exchange and training activities.	Widely known and appreciated by government. Ongoing and preparing adjusted approach focusing more on institutional development based on current needs assessment.	Significant

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

Activity name	Period	Links with other Netherlands-funded activities	Implementation	Follow up, sustainability	Significance for co-operation benefits[18]
Multi-donor trust funds					
Water Financing Partnership Facility	Apr 07-Dec 17	ADB projects; indirectly Deltares for WAMI information system on water availability for ADB irrigation project; also Dutch facility young experts at ADB.	The Netherlands contributes to this Asian Development Bank (ADB) facility, which has supported various water management initiatives in Indonesia. Highly appreciated by ADB staff as flexible funding source, example PPTA/ reassessment of IISP.	Ongoing, for Indonesia used once or twice a year.	Moderately significant.
Water Partnership Programme	Jul 12-Oct 16	WB projects	'The Water Partnership Program (WPP) is a partnership between the WB and the governments of the Netherlands, the United Kingdom, Denmark, and Austria, working together to end poverty and boost shared prosperity through support to investments and analytical work in the water sector.' (WPP, 2016, p. 13). Highly appreciated by WB staff as flexible money well spent – was said to at times 'shift the needle' strategically – one example was quoted of multi country meeting that led to key decision making.	Ongoing	
Promotion of engagement of Dutch water sector					
Young Experts Programme (YEP)	Nov 12-Sep 17	Witteveen & Bos; Deltares	This programme for young Dutch and developing country professionals to work on projects in the water and food security sectors. In Indonesia 11 young experts, 4 Dutch and 7 Indonesian, are active or have graduated from the programme in the water sector.	Ongoing.	Significant, for Dutch and Indonesian expert development and piloting approaches.

This table is structured according to the categories adopted by the overall policy evaluation (section 1.1 above). The 'Implementation' column combines information obtained from documentation and from informants in Indonesia. Additional detail is given in Table III.3 at Annex 3.

3.1.4 Monitoring and evaluation

EQ 6: How has Dutch support for water management in Indonesia 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 Indonesia 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 GOI. If other external funders were also involved, M&E normally followed the IFI's procedures, in consultation with the EKN and the GOI. In the case of WISMP Phase I and PISP, IOB undertook household level impact evaluations, collaborating with the ADB's Independent Evaluation Department in the case of PISP. IOB also assessed institutional aspects, as shown in Table 3.3 below. Of necessity, the EKN's monitoring and supervision role was reduced during the review period, with the closure of the development co-operation section and the transfer of much of the delegated ODA funding to management by other agencies.

The table sums up what is known about MTRs and evaluations of projects undertaken during the review period in Indonesia with delegated funding and budgets over EUR 1 million. It should be noted that, where the table does not report an MTR or evaluation of a project, this means that the evaluation team has been unable to trace any such document. It is not conclusive evidence that no such MTR or evaluation ever took place. It should also be noted that MFA policy only insists on evaluations for projects that have budgets of EUR 5 million or more, or that require special attention. With limited staff time in The Hague and embassies, the administrative burden of commissioning any evaluation has to be considered carefully.

Table 3.3 MTRs and evaluations of projects with delegated funding (budgets > EUR 1 million)

Project	Co-financed	MTR	Evaluation	Comment
Water Resources and Irrigation Sector Management Programme (WISMP), Phase I	√	-	-	Contributing to this evaluation, IOB undertook an impact evaluation of WISMP I at farm household level and a study of water management institutional aspects (Schenk & Heun, 2017).
Participatory Sector Irrigation Project (PISP)	√	-	-	ABD IED undertook a 'completion report'. Contributing to the current evaluation, IOB undertook an impact evaluation of PISP at farm household level, while the ADB's Independent Evaluation Department (IED) assessed the institutional and organisational results of the project (Schenk & Heun, 2017).
Aceh Nias SD Consultancy	-	-	-	
Master Plan EMRP	-	-	-	
Dredging pilot Jakarta	-	-	-	
IWRM Citarum	√	-	-	
Master Planning Jakarta Coast	-	-	√	End of project reviews of the JCDS and of the 'NCICD master planning phase' were undertaken (Dircke et al., 2012; Kok et al., 2014).
Indonesia Irrigated Sector Project (IISP)	-	-	-	This was an ADB Project Preparation Technical Assistance (PPTA) exercise funded by the Netherlands.
Delegated Repr. MoU Water	-	-	-	
Joint Cooperation Programme II	-	-	√	
Consultant NCICD-II	-	-	-	Activity recently started.
NCICD II Knowledge Management	-	-	-	Activity recently started.

It is significant, nevertheless, that some of the larger projects funded during the review period appear not to have been evaluated. In the case of the Aceh Nias sea defences, this may be because the work was part of a multi-donor initiative (although no evaluation of the overall effort has been found either). In the general disillusionment about Dutch support for work to rehabilitate and protect peatlands, with no immediate prospect of further support, no evaluation was commissioned of the project to support planning for the EMRP areas.

Relevant findings from those evaluations that are available are included in the appropriate parts of this country study report. As pointed out in section 3.1.3, almost EUR 7 million was committed through PvW for a total 38 activities. Six of these had budgets of more than EUR 0.5 million. Although PvW III as a whole was recently evaluated (Te Riele et al., 2016), no evaluations were done of any of these individual subsidies or commissions.

All the major implementation channels for the portfolio under review – via the EKN, through contributions to IFI activities and through activities managed by RVO – have their specific supervision, monitoring and reporting procedures. Overall, however, there is a lack of coherence in overall reporting and assessment of Dutch support to water management in Indonesia. As modalities and mechanisms multiply, the overall co-ordination challenge increases, and there is no evidence that any of the participating GON agencies has the resources or the responsibility to tackle it – in particular, bridging the two Ministries of Foreign Affairs and of Infrastructure and the Environment.

3.1.5 Reflection of Dutch water management policy in Indonesia interventions

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

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, Indonesia. For this country, it is particularly important to recognise two interrelated strands of Dutch policy, to see how engagements with Indonesia reflected them both, and to assess what this meant for support to improved water management there. The first strand of policy is the general one directing Dutch relationships with 'developing' countries. Section 3.1.1 above quotes the 2013 policy statement that distinguished aid, transitional and trade relationships, and notes that by 2016 Indonesia was clearly considered to be in the 'transitional' category, with development assistance planned to end in 2020. (Early in the review period this was still considered an 'aid' relationship.) Secondly and more specifically, as shown in section 2.3, policy for support to water management evolved over the review period. Consistent support for IWRM principles accompanied a steadily stronger emphasis on water as a Dutch 'top sector' and narrowing budgets for the MFA. Policy responsibilities and instruments were diversified across the GON, so that MFA policy and programmes became only part of the picture. Later in the review period, there was a stronger emphasis on safe deltas and on linkage between the bilateral and the PvW programmes. There were increasing efforts to involve more of the Dutch water sector in overseas co-operation activities: building increased trade into aid relationships for the partner countries' mutual benefit and working towards a future when interaction would, ultimately, be purely commercial.

Section 3.1.1 above summarises what the successive MASP and MIBs produced by the EKN over the period said about support to improved water management in Indonesia. It shows that the first two of these country strategy documents were influenced by the international co-operation chapter of the Netherlands' National Water Plan, and that programming came to be guided by the Water Mondiaal policy framework with, as just noted, its diversified engagement by agencies of the Dutch government and stakeholders in the Netherlands water sector. Indonesia became one of the 'delta countries' on which Dutch water management support came to be focused, and programming through the MASP and MIBs reflected this with its increasing emphasis on the challenges of Jakarta. Like some other major world cities, Indonesia's capital is sited in wholly inappropriate conditions for such a massive human settlement, with some of its difficulties exacerbated by climate change.

The 'water and safety' theme in the 2014-2017 MIB, with its emphasis on the NCICD and the Banger Polder (in Semarang), linked well to the subsequent focus of the 2016 IWA on urban deltas. That MIB did maintain some support for other modes of aid and co-operation, with a further contribution in the irrigation sector (for the formulation of the ADB's IISP), and a notable emphasis (without using the phrase) on the maintenance and further development of Dutch 'soft power' in the Indonesian water sector through capacity development support (the third of the three IWA 'pillars', as shown in section 2.3 above). Also significant is the fact that this last MIB in the review period did not refer to IWRM, but stated some of its intended results in terms of substantial Indonesian market share for the Dutch water sector (EKN, 2013, p. 10).

By the end of the review period, evolving Dutch policy was thus well reflected in engagements with Indonesia. As the IWA emphasised, earlier policy commitments, for example to IWRM, had not been abandoned. Indeed, they arguably found expression in the emphasis on an integrated solution, including sustainable catchment management measures, to the water management problems of Jakarta. The IWA's focus on urban deltas was matched by the focus in Indonesia on Jakarta (and, to a much lesser extent, other coastal/delta management challenges on the north Java coast). According to Dutch informants, the GOI agreed this urban delta focus with the GON. The Indonesia portfolio thus mirrored the simultaneous narrowing and broadening of Dutch water management policy: through a focus on 'delta countries' (geographically, a rather casual way of describing the seven nations in question) to a tighter emphasis on 'urban deltas'; while the number of Netherlands ministries, stakeholders, instruments and mechanisms in this narrower effort expanded significantly.

3.1.6 Water productivity, water security and water safety

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

Under the overall classification of activities adopted for this evaluation, water productivity initiatives fall under 'water management in agriculture' and within that, most specifically, under 'crop per drop'. Table 3.1 shows that, in Indonesia, there were no 'water productivity' activities' between 2006 and 2016, but that two major projects and one minor one were placed in the 'agricultural development' category. This work concerned enhanced technical and institutional arrangements for irrigated agriculture, largely in collaboration with IFIs. The second largest delegated budget during the review period was for WISMP I, which was also a contribution to an IFI irrigation activity but was classified in Table 3.1 as (river) basin management. Including WISMP I, the activities mentioned above absorbed 43% of the total budget commitment.

Much of the other Dutch investment addressed water security and water safety concerns. The recent focus has been on flood management and related protection initiatives in Jakarta and elsewhere on the north Java coast. But the major contribution early in the review period to improved water safety in the Aceh and Nias areas should not be forgotten. Combining the 'coastal development' and 'disaster management' categories in Table 3.1 with the small contribution from the delegated budget to the Banger polder initiative, 39% of the total delegated budget can be seen to have been committed to water security and water safety. It should also be noted that some (but certainly not all) of the commitments through PvW (Table III.4) were for work in this field (including almost EUR 1 million for the Banger polder) and that a further EUR 3 million came from FDW for the Building with Nature initiative. The latter activity, while aimed at enhancing local livelihoods through enhanced productivity of coastal water resources, also has important water security and water safety dimensions, as sea water laps around the doorsteps of local residents.

Despite these approximately balanced budget numbers, it is debatable whether Dutch support in Indonesia achieved an 'appropriate' balance between water productivity and water security and safety initiatives. The question calls for a qualitative, or subjective, judgement, and the answer should reflect the evolution of Dutch policy over the review period, with an emphasis on co-financed projects for water productivity shifting towards a focus on water safety in urban settings. It can be argued that water productivity (which this evaluation categorises as water management in agriculture) was recognised as an ongoing priority for Indonesia and that, in partnership with the ADB and WB, the Netherlands maintained strong support in this area until the closure of PISP half way through the review period (with later support for the preparation of the IISP). Further major support in this area was not appropriate given the intended scaling down of Dutch ODA to Indonesia, the considerable local technical and budgetary capacity in this area, and the ongoing support of the IFIs.

Meanwhile, lives and livelihoods continue to be gravely threatened by the water safety challenges in Jakarta and elsewhere – challenges that the Netherlands water sector is well equipped to help Indonesia address. Furthermore, there are significant commercial opportunities for this Dutch 'top sector' to exploit in the major programmes that enhanced water safety requires, and corresponding opportunities for the Netherlands to build its technical and business reputation – fully in line with the IWA. Water safety work in

Indonesia's megacity capital enhances water security and thus helps to alleviate poverty and strengthen the livelihoods of the poor majority in the city's population. Similar benefits can be achieved in areas like Semarang and Demak. From these perspectives, the steadily stronger Dutch emphasis on water security and safety initiatives was appropriate. At the same time, it represents a withdrawal from the broader commitments at the start of the review period through the geographically questionable concept of 'delta countries' to the apparently narrower IWA focus on 'urban deltas' – although this includes such areas' catchments and supply chains, and the IWA is presented as a complement to, not a replacement of, existing policy.

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, 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 Indonesia?

Irrigation infrastructure

According to the recent IOB impact evaluation of PISP and WISMP, several studies in the 1990s concluded that the main factors affecting the operation and maintenance (O&M) of irrigation infrastructure in Indonesia were: '(i) policy and institutional constraints, (ii) weak and low level of stakeholder participation, and (iii) inadequate assessment and funding of O&M' (Schenk & Heun, 2017, p. 4). PISP devoted about half its budget to the rehabilitation of infrastructure, while WISMP, with its stronger emphasis on higher-level institutional development, allocated about 25% of its budget to this purpose (Schenk & Heun, 2017, p. 8). As in many countries, the irrigation sector in Indonesia shows the 'build, neglect repair' syndrome: donor assistance and domestic investments are used to rebuild what earlier projects installed after maintenance arrangements (if any) proved inadequate.

The projects' progress in overcoming these constraints on adequate O&M seems to have been partial. 'Although all institutions and plans are in place, it seems that the sector is not yet fully functional. Participation by farmers is limited and shortages in irrigation system operational staff and budget continue to hamper the management of the irrigation infrastructure' (Schenk & Heun, 2017, p. 24). It is too soon to reach final conclusions as to whether PISP and WISMP areas have entered a new phase of the 'build, neglect, repair' cycle. The recent IOB study found that farmers in PISP areas provided more in-kind labour to their WUAs than farmers in control

areas; that such labour is useful in minor maintenance of the tertiary networks for which WUAs are responsible; and that 'in project areas the water infrastructure is likely to be still in relatively good condition after the rehabilitation during the project'. In WISMP areas, the study's focus group discussions found that 'the quality of the water infrastructure is generally poor, although some farmers note that it has improved since the project started. This may indicate that, even after project investments, in many cases irrigation infrastructure is still in bad shape…' Overall, the study concluded that O&M budgets in district-level irrigation schemes remained inadequate. It found that farmers, on the other hand, were generally willing to contribute sufficient cash and labour for maintenance of their irrigation system, also at secondary and primary level' (Schenk & Heun, 2017, pp. 3, 52). Looking at both PISP and WISMP, the overall conclusion was bleak.

'Investments made in infrastructure are likely to have generated temporary benefits to farmers but without the proper institutional environment in terms of planning and budgeting to sustain them, they are unlikely to last. While real participation by farmers in O&M of infrastructure is precluded, the additional benefits expected from both projects are unlikely to be realized.' (Schenk & Heun, 2017, p. 53).

Water safety infrastructure

Evaluation question 7 (shown in the box above) focuses on the water management regime for crop production. In Indonesia, major efforts were also made to support the development of water management regimes for other purposes too.

The first major Dutch investment in water safety infrastructure during the review period supported enhanced water safety arrangements for **Aceh and Nias** (Sea Defence Consultants, 2009; Nieuwenhuis et al., 2011). It has not been possible to find conclusive evidence on the functioning of this infrastructure a decade after it was installed. One informant spoke of poor maintenance of drainage and estimated the overall effectiveness of the flood protection and drainage system to be 70%. Another thought that the infrastructure was still serving its purpose. The continuing value of the different parts of the infrastructure probably varies. Tsunami refuge facilities, for example, are still in place.

As the former colonial power, the Netherlands has had a central role in water safety infrastructure for **Jakarta** for several centuries. Nearly three decades after independence, the 1973 Netherlands Engineering Consultants (NEDECO) plan of Professor Jan Kop made a major contribution, although the eastern flood canal that was among its recommendations was only completed in 2010. Soon after the start of the review period, what was described as the worst flood in three centuries inundated 40% of Jakarta in 2007, causing 80 deaths, dislocating 340,000 people and leading the GOI to request further Dutch support for the city (Brinkman & Hartman, 2009).

During the review period, activities aimed at helping to tackle the massive water safety challenges of this badly sited megacity moved to the centre of the Dutch development co-operation programme in Indonesia. The Netherlands contributions were funded by the EKN's delegated budget and by PvW, with some of the former being channelled through the RVO (emphasising the point that it is now necessary to consider Dutch policy and

programming as a whole, rather than still trying to isolate Dutch aid policy in the analysis). Jakarta's partnership with the city of Rotterdam was significant at political and technical levels. All these contributions mostly provided advisory and planning services rather than directly working on infrastructure, although the pilot dredging project (linked to phases 2 and 3 of the Jakarta Flood Management (JFM) project) did undertake physical works in association with the Public Works department of DKI. They progressed from a focus on river floods, up to 2010, to an emphasis on flooding from the sea.

Despite the enormous effort and expenditure of the last 11 years, it is premature to assess whether all this support for enhanced water safety in Jakarta has effectively enhanced the water management regime. Dutch funding and expertise have played a vital and widely appreciated role in review of the causes of Jakarta's problems and of potential strategies to solve them, through an overlapping series of initiatives: the JFM and Flood Hazard Mapping (FHM) projects, the JCDS, master planning for the Jakarta Coast, the NCICD Phase I and recent preparations for NCICD II. These initiatives not only raised awareness of, and further planning for, the technical options; they also laid the foundations for substantial investment from other funding sources, including IFIs and the national government. Despite the complexities, challenges and inevitable shortfalls, comparatively small-scale support from the Netherlands, combined with a central role in technical thinking and design, led to much larger-scale implementation of water safety measures aimed at tackling both river and sea flooding.

There has been a long and complex saga of planning for and debate about a series of infrastructural developments that would, in theory, protect the steadily subsiding areas of north Jakarta from flooding by rivers and the sea and could, according to proposals that some informants consider far too optimistic, include major, private sector-funded land reclamation works – the 'Great Garuda', in the shape of Indonesia's national symbol – and an outer sea wall. One major reason for exploring private sector funding was political reluctance in the GOI to commit large sums of public funding to the capital, which other regions of the country could resent. The trend in this long process was described by one informant as 'defence to development'. The planning paradigm evolved from a focus on defending Jakarta from flooding threats by installing the necessary infrastructure to a concept of attracting private sector funding through massive new land and property development that could, some planners believed, finance the infrastructure costs.

These processes of planning and debate have been undermined by political uncertainties and allegations of corruption and have been dogged not only by critiques of their realism about market appetite but also by technical disagreements and accusations from some quarters that, at some stages, the Dutch-led planning process became too detached from the political, economic and technical realities. The situation remained uncertain at the end of the review period, although there was no doubt that the Dutch contribution and expertise continued to be highly valued by the Indonesian authorities. Core roles and responsibilities were allocated to the Netherlands in the planning for the forthcoming NCICD II process (alongside a major technical input from the Republic of Korea).

Although now better recognised, the fundamental and most urgent water safety challenge for Jakarta – subsidence in the north of the city due to massive groundwater extraction, linked in turn to a major deficit in the municipal water supply – had not yet been effectively tackled at the end of the review period. According to one experienced informant, not enough has been done soon enough. A disaster will happen[19]. The drinking water/subsidence issue has been confirmed as the urgent, top priority for the forthcoming action programme. A second challenge concerned the catchments of Jakarta's 13 rivers. Despite substantial Dutch contributions to ADB funding for IWRM planning for the Citarum catchment and the '6 Ci's' river basin within which it falls, recent Jakarta water planning activities focused largely on management of the delta and coastal zone, rather than IWRM of the whole basin. The strategic plan developed for the basin awaits implementation, which is likely to take time. The responsible Water Council (which links GOI and non-governmental representation) must approve it, and further processes would be required to move through a pilot stage to full IWRM implementation – which is centrally important in any sustainable solution of Jakarta's river flooding problems.

On a smaller scale, Netherlands support also aimed to manage water management regimes **elsewhere on Java**. A common narrative of Dutch water management co-operation emerged in the city of Semarang, where the concept of support from a Dutch water authority in the rehabilitation of the Banger polder was linked to the development of a local water management authority that would be responsible for the O&M of the improved drainage system and, ultimately, charge residents a fee for this purpose. This is analogous to the water tax that Dutch citizens pay to their local water authorities, and arguably advantageous in Indonesia because it may allay residents' fears of mismanagement of such levies by municipal authorities. As can be seen from Table III.4, this was the subject of the largest PvW disbursement during the review period, with supplementary funding from the EKN delegated budget (Table 3.1) and the Dutch water authority in question, Schieland en de Krimpenerwaard. The infrastructure itself has been funded by the GOI and the municipality, following the unsuccessful attempt to conclude the complex process of ORIO funding, whose conditions the GOI decided it could not accept (section 3.1.2 above).

After ten years of preparation, near the end of the review period in September 2016, the low-income Banger polder of Semarang city became dry. The drainage infrastructure is partially in place and working (despite the theft of key electrical switchgear before the system was commissioned – its replacement awaited the completion of local budgeting processes). The SIMA[20] authority set up to operate the system has made a sound start, although the proposed local levy is still under discussion and difficult resettlement arrangements must be concluded before the infrastructure can be completed with a retention basin. As in Jakarta, it cannot yet be concluded that Netherlands support helped achieve technically appropriate and sustainable operating systems and durable local institutions for the Banger polder. Time will tell. But a sound start was made.

[19] Another informant said that, like a frog in boiling water, Jakarta residents have not been sufficiently aware of the imminent threat.

[20] SIMA is a conflation of Schieland and Semarang. It is also the name of a Javanese prince.

Near Semarang along the coast of Demak Regency, the Netherlands supported a combined water safety and water security initiative, Building with Nature, that aimed to combat coastal erosion, rehabilitate mangrove belts, enhance water resources for aquaculture and reduce the risk of flooding for the local communities (Ecoshape, 2017; Wetlands International, nd). Dutch funding was provided mainly primarily through FDW (section 3.1.2), with contributions from participants in the Ecoshape Foundation and strong technical and social engagement from Wetlands International. The GOI Ministry of Marine Affairs and Fisheries (MMAF) is funding and implementing part of the overall programme of constructing permeable structures to trap sediment, encourage mangrove re-establishment and increase biodiversity and water resource productivity. This complex joint effort had not yet reached optimal technical solutions by the end of the review period; the programme is ongoing, with good foundations laid for progress. Once again, it will be some time before there can be clarity as to the technical appropriateness and operational sustainability of this contribution to water safety and water security, which is potentially replicable at many other vulnerable coastal sites in Indonesia.

3.2.2 Benefits for land and water users

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

Agricultural productivity

PISP and WISMP Phase I were the principal vehicles for Dutch support to increased agricultural productivity in Indonesia during the review period. However, this was support to IFI projects (the ADB and WB respectively), rather than a full expression of Dutch policy and approaches. The Netherlands reportedly made no input to the design of these projects, apart from an insistence on the inclusion of appropriate gender principles. The GOI reemphasised its commitment to Increased irrigated production towards the end of the review period, with a plan to develop 1m ha of additional irrigated land and to rehabilitate 3m ha of existing irrigated agriculture between 2016 and 2019. Apart from its contribution to the design of the IISP, which will contribute to the rehabilitation effort, the Netherlands has withdrawn from this sector.

PISP and WISMP I were both intended to help promote participatory irrigation management approaches and thereby reinvigorate the irrigation sector in their respective areas, after long periods during which infrastructure had not been adequately maintained. They had some success in this regard, stimulating the participation of women and men in local water user associations and their rehabilitation and more systematic maintenance of tertiary infrastructure.

IOB's impact evaluation of PISP and WISMP I found that they decreased the differences in cropping intensity between income groups and were slightly more effective in improving

cropping intensity for lower income groups. PISP increased water availability to farmers, which led to increased cultivation of rice, the most popular crop by far. WISMP increased the cultivation of other crops at the expense of rice. The study also found that 'average nutrient adequacy is similar between project and control farmers' (Schenk & Heun, 2017, pp. 37, 39, 47).

According to one informant, PISP did not focus on food security. The IOB study found that nutritional challenges remained in project farm households, and suggested more policy and programming attention to whether crop diversification and increased homestead gardening can be achieved without decreasing farm income; and whether increased income can be used, at least in part, to increase farm households' nutritional diversity (Schenk & Heun, 2017, pp. 56-57).

In terms of income and yields, the evaluation found that

'Income earned from the sale of rice and other crops is similar between both PISP and the control group and WISMP and the control group as shown in Table 36 and Table 37. The differences in production quantities, prices and costs do not seem to lead to differences in farm income. However, given the difficulties in reliably estimating input quantities and prices, these values should be interpreted with caution...

In terms of income no differences were found between project and control farmers. Perhaps project farmers benefitted from the project several years which led to a slight increase in their wealth (asset ownership), but as project benefits started to diminish, income has become similar to control areas again...

Because the projects were only able to address to some extent the constraints at institutional level that continue to hamper the development of a more participatory, transparent and efficient water management sector, it is perhaps not surprising that project effects at household level are limited compared to control areas, which reflect the 'default' situation (with an already quite well-functioning irrigation infrastructure). No differences in rice yields were found...' (Schenk & Heun, 2017, pp. 43, 45, 52).

Most significantly, the impact evaluation concluded that the sustainability of whatever benefits PISP and WISMP achieved was not assured. It appears that the 'build, neglect, repair' cycle may not have been broken.

'It seems both PISP and WISMP were able to deliver most of the outputs as planned. However, to achieve the outcomes of more effective and efficient participatory (irrigation) water management and increased farm production and income, the main constraints are outside the scope of both projects, although they addressed parts of it. Therefore, investments made in infrastructure are likely to have generated temporary benefits to farmers but without the proper institutional environment in terms of planning and budgeting to sustain them, they are unlikely to last. While real participation by farmers in O&M of infrastructure is precluded, the additional benefits expected from both projects are unlikely to be realized.' (Schenk & Heun, 2017, p. 53).

3.2.3 Local institutions and water management planning

The box below shows a number of the evaluation questions posed in the ToR for this country study. Answering them requires an overlapping analysis at local and national levels. The report attempts this from the local and district perspective, with a more national perspective offered in section 3.2.4 below.

EQ 9: In Indonesia, 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 Indonesia, 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 Indonesia, did farmers pay for WUA services and did WUAs account transparently for income and expenditures?

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

EQ 14: Did the water management plans that the Netherlands supported in Indonesia 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 Indonesia?

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

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

Institutional arrangements

Along with IFIs (notably the WB and ADB), the Netherlands has been in the mainstream of efforts to promote participatory irrigation management (PIM) in Indonesia. By the start of the review period, the concepts of local Water User Associations (WUAs) and of WUA Federations (WUAFs), with their nested responsibilities, were established (Vermillion et al., 2011, pp. 2-3). During this period, the main (but indirect) Dutch contribution to institutional development was through PISP and WISMP, which introduced the first District

Irrigation Management Plans. (Irrigation schemes of less than 1,000 ha are a district responsibility, with provincial and national authorities responsible for larger schemes.) Both projects aimed to strengthen the understanding and application of PIM principles, and mainstreamed the concept of IWRM and the approaches that it required.

'PISP started from the rehabilitation of irrigation infrastructure and strengthened the related institutions primarily at field- and district level, whereas WISMP started with capacity development of institutions at mainly the national, provincial and basin level and to some extent at district and field-level as well, while using rehabilitation of irrigation infrastructure as demonstration pilots.' (Schenk & Heun, 2017, p. ii).

In a different context, as outlined in section 3.2.1 above, Netherlands support and promotion of the Dutch water authority model led to the establishment of SIMA, the body responsible for O&M of the Banger polder in Semarang. Informants emphasise that the lengthy discussions and planning that preceded the establishment of SIMA and the 2016 launch of the infrastructure allowed ample participation by local citizens in the conceptual development of the management model. It is not a crude imitation of a Dutch water authority. Informants on the SIMA authority said that 'SIMA's special character is to think about people first, engineering second'. They also emphasised the obvious reality: the project has made a good (though delayed) start with improved water safety, but there is much still to learn and to prove, and much will depend on consensus around the proposed drainage levy that residents will pay – an issue that had not been resolved by the end of the review period.

The water management planning processes that the Netherlands supported at local level (mostly indirectly, through IFI projects, but more directly in Semarang) followed the IWRM principles to which EQ 14 refers (see box above). The principles of IWRM were most directly and comprehensively expressed, however, in the basin planning process that is discussed in section 3.2.4 below.

Fees and funding

In PISP and WISMP, farmers provided monetary contributions and labour on an ad hoc basis for O&M purposes at the tertiary level of irrigation systems. In terms of the 2004 Water Law, WUAs are not required to contribute for O&M at primary and secondary levels, and government subsidies are provided to them for work at their tertiary level. District irrigation management funds, which GOI planned to help with O&M funding, were not established. WUAs are not confined to PISP and WISMP project areas. The IOB impact evaluation found that 'farmer contributions to the WUA range from USD 35/ha to USD 27/ha annually, but most are in kind (rice/labour). Excluding labour, contributions range from USD 6/ha to USD 8/ha. While annual WUA contributions are higher in project areas, project farmers contribute more on an ad hoc basis while control farmers contribute more through member fees. WUA membership is around 80% to 85% in both project and control areas'. The study found numerous inconsistencies and ambiguities in the ways in which cash and in-kind contributions were made and managed. There are 'large groups' of farmers who do not contribute. In some schemes, only WUA members contribute to O&M while in others all farmers do so (Schenk & Heun, 2017, pp. 19, 21, 25, 33). It went on to say that

'Spending on irrigation fluctuated from year to year depending on the priority of the local government. Also, special allocated funds (DAK) from the national government earmarked for a specific prioritized sector, in this case irrigation, provide funding for the sector. The importance of DAK funding is rising but the amounts can vary widely over the years and between areas. There is also a lack of comprehensive monitoring of funding given to a particular location from various national and subnational programs and one-time initiatives. Nonetheless, interviews with agency staff and site visits consistently suggested that irrigation O&M is inadequate particularly for the district schemes. For the district schemes visited by the evaluation team, no or very little maintenance has taken place since the PISP rehabilitation in 2009-2011.' (Schenk & Heun, 2017, p. 21).

The local funding basis for enhanced water management by WUAs and WUAFs is thus incomplete (EQ 16). The World Bank's Implementation Completion and Results (ICR) report for WISMP I said that 'the Ministry of Finance and local governments provided sufficient counterpart funding although the disbursement of funds was often seriously delayed', but that the number of WUAF funding applications approved by district Public Works departments exceeded the target (World Bank, 2014, np). The ADB's performance assessment of PISP found that

'There were notable features of the PISP design that were groundbreaking for Indonesia. The effort to strengthen irrigation planning through the use of rolling medium-term planning incorporating rigorous and updated field data, and an introduction of the local commissions on irrigation were necessary to build support within the central and local governments to raise funding commitments for irrigation.

... the project's capacity building supports improved irrigation planning and budgeting at the provincial and district levels. This was primarily due to the acquisition of hard data to support requests for higher irrigation budgets. The effort to adopt RP2Is – more systematic medium-term irrigation plans – has not been completed ...

Irrigation planning and budgeting have benefited from the improved asset inventory procedure and software developed under the PISP in about half the districts visited; the richer and updated data supports more credible budget requests for irrigation annually. Nonetheless, without the RP2Is being adopted and updated, the irrigation planning and budgeting horizon has been shortened to a yearly instead of multiyear framework ...

... operationalization of the irrigation commissions was not sustained in all districts, and the improved irrigation plan approach/format introduced under the PISP was not adopted in any of the 27 districts. With regard to the sustainability of funding, the budgets provided are still insufficient to adequately maintain the rehabilitated irrigation structures. The project is therefore rated less than likely sustainable.' (ADB, 2016c, pp. xii, 15, 18, 19).

Institutional capacity

One informant with long experience of the Indonesian irrigation sector argued that the quality of irrigation management has deteriorated. Problems reportedly include the availability of appropriate personnel, inadequate maintenance budgets, poor maintenance, outdated operation systems and corruption. While PIM has been fairly successful, according to this informant, the governance of the sector remains inadequate. According to another

informant, however, PISP and WISMP did at least succeed in getting irrigation regulations passed in the districts where they operated, and the Ministry of Home Affairs plans national legislation to enforce irrigation O&M. The IOB study concluded that significant challenges of institutional capacity and sustainability remain.

'WISMP and PISP generally succeeded in establishing the institutions they set out to do. However, whether they succeeded in fulfilling their roles as envisaged in project design and their effects on the functioning of the irrigation sector is difficult to establish. Most evidence points in the direction that the irrigation sector is generally well organized but farmer participation remains limited despite the projects' efforts to address this to some extent.

Often mentioned constraints for further development that hamper the functioning of government irrigation service agencies are a lack of staff, a high rotation of staff, a lack of budget for operation and maintenance of water management infrastructure and lack of appetite to continue reforms. While these may sound familiar to other sectors and countries as well, some constrains specific to the water sector in Indonesia can be identified with respect to planning and budgeting of water management infrastructure operations and maintenance.

The Water Law [of 2004] precludes farmers (organized in WUAs and WUAFs) to assume responsibility for or contribute cash to O&M of primary and secondary canals. Therefore, the role of the WUA in O&M is limited to tertiary canals and that of the WUAF to advising on O&M in primary and secondary canals through the Irrigation Commission and occasionally contributing labour. However, because the Irrigation Commission is an advisory institute the influence of farmers over setting district governments' priorities in O&M is limited. Also, no follow-up has been given to hiring WUAFs for (simple) maintenance and rehabilitation works in irrigation schemes which occurred during PISP and provided the WUAFs with funds and purpose, both of which they lack at the moment. So far, participation is limited and the (national and provincial) government is still the dominant force in water management.' (Schenk & Heun, 2017, p. 51).

Experience with PISP and WISMP suggests that the most fundamental challenge in community water management has not been fully overcome. This is the challenge of 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 WUAs – 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.

3.2.4 National institutions and water management planning

EQ 9: In Indonesia, 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 13: Did Dutch support contribute to approved water management plans in Indonesia?

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

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

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

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

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

As explained at the start of section 3.2.3, this section continues an analysis of the evaluation questions shown in the box above from a more national perspective.

In Indonesia, the national institutional environment for any mode of water resource management is complex, and the opportunities for any external support to influence it are correspondingly challenging. Not only are national and local systems in this transitional economy complicated and difficult for the outsider to engage; they are also confident and comparatively well resourced. Furthermore, Indonesia is a nation where any innovation in institutional or operational practice must be legislated at the relevant level(s) before it can take effect. This obviously slows the pace of change; and in the water sector, further complications were introduced in 2015 when the Constitutional Court struck down the 2004 Water Law, reinstating the previous Water Law of 1974[21]. External support must expect to be incremental and supplementary, rather than transformative.

[21] This was because of the provision in the 2004 Law for the private sector to engage in the supply of drinking water, which the Court found to be in contravention of the Constitution of 1945 (Johnson, 2015).

Irrigation

For irrigation, as noted above, legislation has established three sets of authority and responsibility: at national, provincial and district levels (ADB, 2016a, pp. 9-10). Within national government, three ministries are directly involved in the sector, with their respective roles set out in a decree on their collaboration in irrigation that was issued by Bappenas, the national development planning agency. They are Public Works and Housing (MPWH), Home Affairs (MHA) and Agriculture (MA). While not all Dutch-supported interventions in Indonesia are reported to have engaged adequately with the MHA (and some informants consider that their sustainability is therefore jeopardised), PISP and WISMP did do so. The Water Law of 2004 incorporated a number of irrigation reform components, all of which became invalid when the Constitutional Court issued its judgement in 2015. Since then, and pending its possible reinstatement, the MPWH has been preparing regulations under the 1974 Law to try to reinstate some of these reform elements. These are all internal Indonesian issues with which the Netherlands was not engaged. Through the IFI PISP and WISMP projects, there was some Dutch influence on the local institutional environment for irrigation in those projects' areas. There was less influence on the national and provincial institutional framework for irrigation.

The ICR for WISMP I criticised the project for excess institutional ambition, rating its quality at entry as 'moderately unsatisfactory' with 'significant shortcomings' (World Bank, 2014, np).

'...the project's scope (about half of the country) was unnecessarily broad and its design (numerous levels of interactions at many levels of government among five ministries being reformed at the same time) was complex requiring considerable coordination between different levels of government and communities. While it may have been too risky to sequence the reforms more slowly in smaller parcels across Indonesia because of the tendency for entrenched bureaucratic interests to push back vigorously against piecemeal reforms, a more measured pace may nevertheless have been more judicious and would have avoided some of the financial management and coordination problems which emerged during implementation.' (World Bank, 2014, np).

The ICR report rated WISMP I's performance in enhancing water sector governance and strengthening sector fiscal sustainability, nationally and in project basins, as 'modest'. Although the National Water Council was established and operated throughout the project period, the degree of improvement in provincial basin management units' performance was variable and the planned partial cost recovery by basin agencies was not achieved (World Bank, 2014, np).

River basin management

Overlapping in a kind of matrix with the ministerial and decentralised governance frameworks above are the river basin territories (RBTs, which may comprise more than one catchment) and the allocation of management authority over these territories to central government, provinces or districts according to their geographic extent and/or strategic significance (ADB, 2016b, p. 35). It is through basin management processes that water allocation to irrigation and other uses is meant to occur and through which IWRM principles and practices are most comprehensively applied (ADB, 2016b, p. xviii). Dutch expertise was intensively used in the Basin Water Resources Management Planning

component of WISMP II (not funded by the Netherlands); under WISMP I, an MPWH decree on basin water resource management was issued (in 2010); the ministry established a national basin planning unit; and two provinces established such units. In other provinces and at district level, basin planning units were formed but did not function due to lack of staff. Overall, the World Bank's ICR report rated the performance of the WISMP I component to which this basin planning work contributed as 'modest' (World Bank, 2014, np). Dutch support for IWRM and basin planning in the Citarum basin through the ADB's 6 Ci's project provided a wealth of detailed experience and elaboration of structures and arrangements (ADB, 2016b), although, from the practical perspective of IWRM to enhance Jakarta water management, the results were incomplete (section 3.2.1 above).

Water safety planning

In its long running and significant efforts to support improved water management planning for Jakarta, the Netherlands interacted with comparatively strong, competent Indonesian agencies: notably the DKI and the MPWH. Strengthening the environment for the implementation of water management plans depended, first, on those plans being agreed – which, as explained in section 3.2.1, had not happened by the end of the review period (a partial answer to EQ 17 in the box above). Secondly, it depended on Dutch technical and institutional skill in enhancing capacity, knowledge, awareness and action across the spectrum of planning, operation and maintenance for which the Indonesian agencies were responsible,

EQ 15 (see box above) asks about the political environment. This remained controversial – a sensitive domestic scenario in which the EKN and Dutch advisers, notably the Delegated Representative for the water sector, could play only the most distant, background role in the 'trusted adviser' capacity that they successfully strengthened. Through the long sequence of planning and advisory support by a series of expert trusted advisers, some of whom have built up decades of experience with Jakarta water management, there is no doubt that the Netherlands did strengthen the Indonesian agencies' insights and operational approaches. The detailed work done on flood hazard mapping, the pilot dredging project and the intensive working partnership supplied through the 'Assistance to the PMU' activity (despite the failure of the planned Indonesian counterpart team to materialise (EKN & MI&E, 2016)), all contributed in this regard. The foundations for effective action to overcome the capital's grave water management challenges had been strengthened by this Dutch support. Whether they would be built upon effectively was, in the last analysis, a question of Indonesian politics and governance. Uncertainty continued at the end of the review period about management structures for NCICD II.

Domestic funding

EQ 16 (see box above) asks whether domestic budgets been allocated for the implementation of water management plans whose preparation was supported by the Netherlands in Indonesia. The now rescinded Water Law of 2004 stated that water as a commodity was free of charge, 'but that a 'water resource management fee' may be charged for services to bring the water from the source to the user. This fee is to be calculated so as to achieve cost recovery... In practice, service fees for water services are applied only to bulk

water supply and for drinking water. To date, there is no charge to cover the cost of providing water for irrigation and other types of water use, including flood management' (ADB, 2016b, p. 42).

Although there has been progress with institutional arrangements and funding mechanisms for river basin organisations (RBOs), and arrangements are relatively straightforward for RBTs that fall under central government, much remains to be done to achieve a financing system for river basin management that regularly and predictably provides the funds for IWRM to be implemented effectively – a vital target, given the water security and water safety challenges facing rural and urban livelihoods in Indonesia ADB, 2016b, pp. 43, 45, 47, 55). Like many other aspects of water management, the funding of RBOs was disrupted by the cancellation of the Water Law of 2004 (although this may be temporary: by the end of the review period, a revised version had been completed and awaited parliamentary review). More broadly, this mode of water resource management is constrained by a problem that is faced in many countries. RBT boundaries do not necessarily coincide with those of local government. Setting up a whole new system of management authorities is bound to be administratively and fiscally burdensome, and rarely enjoys much political priority. In any event, apart from its indirect involvement in WISMP I and the Citarum IWRM project, the GON had little engagement in these issues.

Funding plans for the urgently needed NCICD water management infrastructure in Jakarta went through a complex series of negotiations and revisions during the review period, with the concept of private sector funding considered by some observers to have been too enthusiastically embraced at a certain stage (section 3.2.1). Meanwhile, despite reported political sensitivities, there is anecdotal evidence that the Ministry of Finance of this transitional economy was ready to consider committing billions of dollars of domestic funding should this be necessary. At the end of the review period, it remained unclear what combination of financing would ultimately be adopted.

Overall, the Dutch contribution to a strengthened environment for the implementation of water management plans was modest. In the irrigation sector and in river basin planning and management, it was in any case indirect. There was some technical progress and a substantial improvement in the consensus about optimal approaches. In water management planning for Jakarta, the progress was also incremental but real. The Netherlands strengthened its reputation and performance as 'trusted adviser' to the water management sector, displaying much of the technical and institutional skill referred to above.

3.2.5 Cross-cutting issues

EQ 20: Were gender, environment, climate change and other priority Netherlands policy themes effectively mainstreamed in Netherlands-supported water management initiatives in Indonesia?

EQ 21: Did Netherlands-supported water management initiatives in Indonesia maintain or improve water management benefits for, and levels of management participation of, women and lower income groups?

EQ 22: Did implementation of Netherlands water management policy in Indonesia 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?

Gender, environment, climate change and Dutch private sector engagement are the priority cross-cutting policy themes with which EQs 20, 21 and 22 of this study's evaluation matrix are concerned (see Annex 2 below and section 2.3 above).

Gender

Gender did not have a high profile in the design and implementation of Dutch support for improved water management in Indonesia between 2006 and 2016. The EKN's MASP for 2008-2011 briefly referred to it as a cross cutting concern, although it also said that its choice of a multidisciplinary approach meant that subjects like gender would no longer appear as separate themes. This can be seen as perfect mainstreaming or as an indicator of low priority for the issue. That MASP did include women's participation as a governance indicator in its results framework (EKN, 2008, pp. 9, 18). The following multiannual plan (2012-2015) devoted three lines to its statement that gender was a cross cutting issue. The MIB for 2014-2017 did not refer to gender at all. Gender has not been a prominent issue in directly or indirectly Dutch funded projects either, although PISP included a gender action plan and was reported to have made slow progress in women's empowerment (ADB, 2016c, pp. 21-22). WISMP I was reported not to have implemented the recommendations of its MTR to mainstream issues of gender and the poorest groups (World Bank, 2014, np).

With funding from the Nuffic[22] Netherlands Initiative for Capacity Development in Higher Education (NICHE), the international Gender and Water Alliance undertook week-long training of trainers courses on IWRM in 2013 and 2014. They were held at the MPWH training institute. It turned out that there was not enough funding for the planned gender policy brief (GWA, 2015, p. 20).

[22] The Dutch organisation for internationalisation in education (https://www.nuffic.nl/en)

Environment and climate change

The nature of water resource management means that environmental factors and issues are automatically central to it, although whether they are addressed appropriately is far from automatic. Two major early activities during the review period were directly concerned with environmental issues. The first, the Aceh Nias sea defence project, was a direct response to a catastrophic natural disaster. The second, the EMRP, sought to tackle the environmental damage caused by earlier human intervention in the extensive peatlands of Kalimantan. The environmental challenges of Indonesia's lowlands and peatlands remain a high priority for the country and the planet, because of the contribution that their degradation makes to climate change and the (theoretical) potential that these vast areas offer for increased food production. The EMRP (supported through the EKN's delegated budget – no evaluation report has been found) was undertaken alongside a PvW-funded initiative to prepare a National Lowlands Development Strategy (NLDS: see Table III.4 at Annex 3).

As a follow up to the EMRP, Dutch expertise was centrally involved in the Water Management for Climate Change Mitigation and Adaptive Development in the Lowlands (WACLIMAD) project, which was implemented by the World Bank using Dutch trust funds between 2010 and 2012. WACLIMAD 'was designed (i) to establish a policy dialogue between key-stakeholders and ministries involved in peat- and lowland management, (ii) to develop a common lowland database to support future actions by GOI, and (iii) to support the development of a national peat- and lowland management policy and strategy' (Euroconsult Mott MacDonald, 2012, p. vi). It was followed in 2012-2013 by a PvW-funded activity, Quick Assessment and Nationwide Screening (QANS) of Peat and Lowland Resources and Action Planning for the Implementation of a National Lowland Strategy. QANS 'was originally intended as a geographic extension' of WACLIMAD, but was revised during its inception period to aim 'at collecting and developing knowledge in areas where WACLIMAD had shown a lack, or insufficient use of such knowledge and which was an obstacle to develop sustainable policies. QANS focuse[d] on the provinces Riau and West Kalimantan and several key issues, such as accuracy of peat maps, identification of suitable livelihoods for the adaptive management zone, assessment of under-performing agricultural areas, identifying inconsistencies and loopholes in the legislation' (Euroconsult Mott MacDonald, 2013, p. 9).

During the first half of the review period, the Netherlands was thus centrally engaged in the environmental and climate change challenges associated with Indonesia's vast lowland and peatland resources and their mismanagement. 'Mainstreaming' was too narrow a description of Dutch commitment to these issues at the time. However, they were also politically sensitive; large private sector interests were involved; and the EKN eventually agreed, in consultation with Bappenas, not to fund further work in this area. Dutch technical expertise remains heavily engaged in lowland/peatland issues, for both public and private sector clients (arguably a case of 'aid to trade'), but there has been no further GON-funded work on them, and NGO expertise and commitment on these grave environmental challenges have not been deployed as thoroughly as was earlier envisaged.

Beyond the usual formal statements about environmental responsibility and impacts, there is no evidence that environment and climate change were significantly mainstreamed in

WISMP I or PISP. Environmental issues were both central to, and inadequately mainstreamed in, the IWRM efforts in the Citarum basin and the long series of activities supporting enhanced water management in Jakarta. As pointed out above, despite the universal awareness of imminent environmental catastrophe for Jakarta and the obvious need for holistic management of all natural resources in the catchments of the 13 rivers flowing through the city, a full catchment-wide approach was not achieved and the environmental strategy against Jakarta flooding was more reactive than proactive.
The paradigm may have shifted from defence to development, but it did not sufficiently shift from the delta to the catchment. In Jakarta and elsewhere on the north Java coast, meanwhile, analysis reportedly found that climate change and consequently rising sea levels were a less immediate concern than flooding from existing river regimes and ocean dynamics. Strikingly, there is a sense that Indonesia has more immediate water management challenges to deal with than those that will arise from climate change. As one expert informant put it, socio-economic change is much more important than climate change in Indonesia for the time being.

In all these discussions and developments, the Netherlands was only one of many stakeholders. While retaining their roles and reputation as trusted advisers and water management experts – the partner requested by the GOI to focus on the urgent flooding problems – the Dutch were not seen as the leading proponents of environmental awareness.

Support for the poorest groups

Poverty reduction received somewhat more attention than gender in Dutch planning for Indonesia. It was a central theme in the EKN's MASP for 2008-2011, which identified combating poverty as a feasible theme for Dutch support and argued that enhanced economic management in Indonesia would accelerate poverty reduction (EKN, 2008, pp. 6, 9). The following plan, for 2012-2015, phrased things differently. It spoke (very briefly) of combining the Netherlands' political, economic and social interests with the development co-operation goals of combating poverty and self-sufficiency (EKN, nd(a), p. 1). The 2014-2017 plan continued this theme: 'poverty reduction programs in the priority areas, or spear heads, will be complemented by support to Indonesia to increase market access, in both directions, and improve its business climate' (EKN, 2013, p.3).

However, poverty reduction and the interests of the poorest groups were not the most prominent concern in Dutch support to water resource management; they were more directly targeted by funding for drinking water and sanitation programmes in poorer parts of Indonesia. PISP, however, did aim to reduce poverty among its beneficiaries by one third. While the ADB's assessment was that the project more than achieved this target (ADB, 2016c, p. 21), the IOB impact evaluation found no difference in income between project and control farmers (Schenk & Heun, 2017, p. 45). The issue of potential other causes of poverty reduction is implicit in the World Bank's comment that 'a decline in poverty in project districts [which was recorded in some WISMP I areas] is inadequate evidence that the decline was attributable to increased crop productivity in project areas' (World Bank, 2014, np).

The interests of the poorest groups have been a significant issue in debates about water safety initiatives for Jakarta. Particularly when infrastructural development was directly linked in Dutch-funded planning to private sector investment – mostly in high-value property development for commercial and residential use on Dubai-style islands that would attract the opposite end of the income spectrum – these initiatives were vulnerable to accusations that they lacked the socially and politically necessary focus on the poorest groups. This was sensitive for the Indonesian leadership, which preferred not to be seen to invest vast amounts in the capital city when so many Indonesians are still poor – but which, at the same time, was attracted by the idea that private investment would reduce the burden on public finances. It was sensitive for the GON, too, as NGOs asked critical questions about whether some of the plans that it was helping to draw up for Jakarta conformed with Dutch principles. 'NCICD is expected to have significant social costs and increase economic inequality because it threatens to further marginalise the fishing communities living on the shores of Jakarta Bay' (Bakker et al., 2017, p. 51). At the same time, if eventually implemented, a comprehensive water safety programme for north Jakarta would mainly benefit the predominantly low-income population who live there.

Exchanging knowledge and skills and promoting the role and interests of the Dutch water sector

An important platform that Dutch policy established for the exchange of knowledge and skills in water management was the **Joint Co-operation Programme**. The JCP built on long-established technical co-operation between several Indonesian and Dutch knowledge institutions, notably the Royal Netherlands Meteorological Institute (KNMI), the Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG), the MPWH water research agency PusAir and Deltares. JCP Phase I ran from 2011 to 2013, but was captured under other subject codes in the MFA database and is not included in the project data for this policy review. Phase II, recorded as a water management activity in the database, was funded through the EKN's delegated budget, with additional resources from PvW (Table 3.1 and Table III.4), with additional partners[23]. The GOI also contributed to the funding of the JCP, as did the participating Netherlands agencies.

The core function of the JCP was to strengthen various Indonesian agencies' roles and performance in data collection, management, analysis and application. Effective water resource management depends heavily on accurate, timely data and the systems that collect and co-ordinate them.

The JCP is broadly considered to have been valuable and successful in promoting the exchange of water management knowledge and skills between Indonesia and the Netherlands. The final report of JCP II concluded that

[23] Additional partners in JCP Phase II were the Indonesian Geospatial Agency (BIG), the Indonesian Agency for the Assessment and Application of Technology (BPPT), Balitbangtan (the Indonesian Agency for Agricultural Research and Development), the International Institute for Geo-Information Science and Earth Observation (ITC) and Wageningen Environmental Research (Alterra).

'If there is one major lesson to be learned from the experience with JCP so far, it is that longer term commitment pays itself out. There are 2 reasons to say this. One is that because of the cooperation over now 5 years, institutes as BMKG and PusAir have grown importantly in quality ... The other reason is that projects benefit enormously from the improved quality of the JCP institutes ... To continue this kind of cooperation is important. It helps the Indonesian institutes to have access to up-to-date expertise, exposure to international institutes, and be prepared to render services to both their regular users defined by law as well as to projects. And it helps the Dutch institutes to remain connected with main stream developments in Indonesia, further develop relevant fields of expertise. It also helps ongoing and new projects with competent partners.' (BMKG et al., 2016, p. 22).

The recent evaluation of the JCP was similarly positive:

'The two phases of the program implemented so far, resulted in substantial outputs and achievements that are widely appreciated by the participating 10 partners and by the water sectors of both countries at large. JCP has increased the knowledge on integrated water resources management in Indonesia and has made appreciated contributions to the further strengthening of local partner organizations.

Techniques, analyses, models and other tools have been developed and put into operation, whereby staff of the respective organizations received on the job training and the organizations made steps towards becoming 'state of the art institutions'. Young staff got more involved in the functioning of the institutes. Also the Netherlands institutions benefitted from their interactions related to the program.

Results are impressive and widely appreciated, but some further efforts are needed to fully achieve the envisaged targets ...

The benefits of the program direct and indirect, far exceed the costs.' (IJzermans, 2017, p. 4).

The evaluation consultant just quoted argued that the JCP had helped to build a relationship of trust between knowledge institutions in the Indonesian and Dutch water management sectors, and that it was important to continue in this direction – not least because this also had important benefits for Dutch private sector engagements in Indonesia. But the JCP was not yet in a position to support itself financially, meaning that further GON subsidy was desirable. As one informant put it, 'JCP isn't that much money, but it has lots of spinoffs for Dutch participants and for Indonesian counterparts'. However, the engagement of the participating agencies was uneven and co-ordination was suboptimal, with no formal steering committee in place by the end of the review period.

On a smaller scale, valuable opportunities for technical exchange and learning between the cities of Jakarta and Rotterdam were provided through phase I of the **Dutch Exposure and Training Programme** (**DUTEP**), 2014-2016[24]. DUTEP II was launched in 2016. Building on the strong partnership between the two cities (dating back to the 1980s), DUTEP I enabled 24 staff from DKI Jakarta to undertake 12-week internship programmes with the Rotterdam municipality and the Delfland water authority (NUFFIC, nd; AKVORSR, 2017). According to

[24] Described in Table 3.1 as Rotterdam-DKI Jakarta Training Programme.

DKI informants, this was beneficial, providing hands-on training that was directly applicable to their work in Jakarta.

> *'Aid' and 'trade' are too limiting as concepts. We should think of a network of linkages, with diminishing GON involvement, but strengthening the network, stimulating free flow of goods, knowledge etc. without strong involvement of government.'*
>
> *'Aid to trade' is not 'giving to taking'. Think of 'trade' as a capacity to be developed. In other words, we're developing Indonesian capacities, with or without Dutch involvement.'*
>
> Comments by two Dutch informants.

Informants say that the then State Secretary for European Affairs and Development Co-operation was greatly enthused by the prospect of working with Indonesia on the NCICD, describing it during a 2011 visit to Jakarta as the ideal opportunity for **linking aid with trade**, and committing EUR 4 million to the task. The case of Jakarta epitomises the tensions that are bound to arise as the Netherlands policy to link trade with aid takes effect. There has been much debate (see box above) about whether that policy concerns a shift from aid to trade, a complementary emphasis on Dutch trade benefits as well as partner country aid benefits, and/or a drive for trade benefits just for the Netherlands or for both the Netherlands and the partner country – and what any of this might mean for traditional Dutch concern with the plight of the poorest groups. It is perhaps unfortunate that the two English words rhyme. If they did not, the unsatisfactory 'aid-trade' shorthand would be unavailable and more careful analysis and understanding would be required of all concerned.

At a more practical level, there are three broad areas of consensus in Indonesia.

- The Netherlands has the strongest reputation among foreign countries as a trusted adviser and provider of technical expertise in water resource management, particularly in research, data management, planning and co-ordination. Other countries like the Republic of Korea now have stronger reputations in the construction of major water management projects (one informant said that the big Dutch achievements were in the 20th century), although some areas of Dutch competence such as dredging and land reclamation are still much in demand. Although Indonesia still respects Dutch irrigation expertise, that is no longer the strongest feature of the Netherlands' reputation.
- The long history of Netherlands development co-operation with Indonesia has helped the Dutch private sector to build its strong position in the country. The policy shift towards a purely commercial relationship will reduce opportunities in some areas of current engagement, notably in agricultural and catchment water management and in hydrological research. Despite the long and useful history, there are no illusions among Dutch firms that the aid relationship gave or still can give them an easy ride to profit in Indonesia – which, with its many Asian stakeholders, is a ruthlessly competitive market and where, according to some, Dutch companies and their GON sponsors play too soft a game.

- Dutch service providers are typically more expensive than their (East Asian) competitors. The balance of technical versus financial criteria in bid assessment makes a major difference to Dutch firms' ability to win contracts. But their technical reputation is such that they have nevertheless been able to retain a significant share of the Indonesian water management market.

> *'Many Dutch parties operating in Indonesia think they automatically have added value. From the Indonesian side that perception is much more limited. The Dutch still have a very good name in terms of water added value in Indonesia – but you always have to prove it again. It's not taken for granted – added value is created by two elements: (1) the Dutch being quite open in terms of sharing new, innovative approaches, technologies etc.; (2) the high level of trust. The Dutch are the trusted adviser – open in sharing information. Co-operation with the Japanese, Koreans etc. is much less open for the Indonesians ... The Netherlands can be quite open now about how they are seeking aid and trade benefits.'*
>
> Informant, Jakarta.

During the review period, overall, Netherlands policy succeeded in maintaining and further enhancing a strong and competitive position for the Dutch water sector in Indonesia. The wording is important: this was not just Dutch aid policy, it was the broader policy combining the strategies of several GON ministries, of which the MFA was one. The most delicate, but largely successful, part of this strategy was to maintain the profile of the Netherlands as a trusted, long-term adviser while also seeking a competitive commercial edge in the Indonesian market (see box above). The EKN and the Netherlands Delegated Representative did succeed in sustaining the Dutch image as partners for the long term, able to give balanced technical advice despite their own commercial interests. This was particularly true in the long engagements around Jakarta water management, where the Netherlands kept a prominent advisory role and managed to establish a three-way operational partnership with the Republic of Korea rather than being completely outflanked by much cheaper and more heavily subsidised Asian competitors.

Meanwhile, Dutch consulting capacity moved beyond Dutch-funded programmes to engage profitably (for the most part) in many other water management activities. Ongoing services to peat- and lowland management and to irrigation projects are key examples of this. Dutch consultants remain attractive to IFIs, depending on procurement and tender assessment arrangements.

Taken together, the strong profile of the Dutch private sector in Indonesian water management was central to the partial achievement of the objectives of Netherlands water management policy in Indonesia. That effectiveness was only partial, as this section has shown. Part of the policy, of course, was to strengthen the trade relationships between the countries and the role of the Dutch water sector in Indonesia. That part of the policy can be considered successful, although much of the funding was still directly or indirectly provided by the Netherlands.

3.3 Efficiency

3.3.1 The Dutch profile and role in Indonesia

EQ 23: 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 Indonesia, and enhance complementarity and synergy of activities?

EQ 24: Did the involvement of the Dutch water sector in Indonesia lead to information, knowledge and technologies that are relevant and useable in the Indonesia water sector?

EQ 25: Did the involvement of the Dutch water sector in Indonesia strengthen the commitment and activities of other donors, policy-making structures and/or implementing agencies in the Indonesia water sector?

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 (see box 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.

It is simplest to deal with EQ 24 first. It was partly answered in the discussion of the JCP above. But also in various fields of planning and implementation, such as irrigation, peat/lowland management, IWRM planning, coastal protection and urban flood management, the involvement of the Dutch water sector in Indonesia achieved lasting benefits for the country. Data, knowledge and approaches were strengthened and continue to be used and applied by many Indonesian and other stakeholders in the water resource management sector – even after GON funding in some of these fields ceased and as it is currently reduced in others.

EQ 23 was also partially answered in section 3.2.5 above. 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 Indonesia, and to some extent to enhance the complementarity and synergy of activities. There were several factors promoting and constraining this progress. Before they are outlined, it must again be emphasised that the Dutch effort assessed here spanned several ministries and Dutch agencies. The MFA was one of several stakeholders in the process, and the Dutch role was an expression of supposedly integrated policies across the GON.

This interministerial approach was expressed through the MoUs (originally four-party, now three-party) between the GON and the GOI – first signed in 2001 and most recently in 2015, between the Netherlands Ministry of Infrastructure and the Environment and the Indonesian Ministries of Environment and Forestry and of Public Works and Housing (section 3.1.1). It was co-ordinated at three levels: through the 'delta team' that the GON established for each of the 'delta countries' with which it co-operated; through the smaller, operational level 'regieteam' (management team) of key staff in The Hague and Jakarta, which met frequently by telephone; and through the office of the Delegated Representative for Water in Jakarta, who worked in close consultation with the economic co-operation section in the EKN.

These co-ordination structures, and in particular the Delegated Representative and his counterpart at the EKN, were able to succeed as experts, brokers and diplomats against the institutional odds. As noted earlier, the number of facilities, instruments and mechanisms available to support Dutch engagement in and contributions to water management in Indonesia expanded during the review period. The consensus among Dutch stakeholders is that the resultant spaghetti of funds, grants and subsidies is messy, hard to understand, difficult to operate, sometimes too much trouble, or imposing unacceptable conditions, for potential Indonesian beneficiaries – and extremely difficult to unravel, rationalise or simplify because of the number of GON agencies, systems and procedures involved. This is not an efficient set of arrangements. Nevertheless, a small number of expert entrepreneurial managers have been able to operate it successfully. In consultation with the GOI and their principals in The Hague, the EKN and the Delegated Representative have been able to identify key programmatic objectives and combine facilities and funds from these multiple sources to marshal the required Dutch capacity and implement the intended activities. One Dutch informant said that the RVO could be used as a 'turntable'[25] to facilitate flexible funding and action. Table III.2 gives an impression of the complex programme of work identified as under implementation through the intergovernmental MOU in 2016. A few senior staff in Dutch knowledge institutions and firms have also learned their way through the procedural jungle and do not find it too difficult to pick some of its fruits. According to one of them, other countries and companies are envious of the way 'Nederland BV' works.

Apparently workable against the odds, this system of entrepreneurial management has its weaknesses. It depends heavily on a small number of individuals and has grown organically over recent years, without being specified in much procedural detail in ways that could be monitored, evaluated or easily picked up by newly appointed personnel. It does not capture or co-ordinate all the GON-funded work that is undertaken in Indonesian water management (see Table 3.2 for activities supported with central GON funds). GON personnel in Jakarta are not always informed about funding decisions in The Hague: sometimes they may tell the GOI that money is not available, and then find that substantial funding for some new or extended activity has just been approved from central sources. These 'parachute projects' may bypass the EKN/MoU governance structure outlined above.

[25] The word actually used was 'draaischijf', which may be a better way of putting it.

As the planned termination of Dutch development assistance to Indonesia in 2020 draws near, it can be seen that Dutch aid policy and programming modalities are now just a fraction of the Netherlands' interface with Indonesian water management. Overall, this Dutch engagement had a continuing positive impact on water management policy and implementation by the Indonesian authorities – subject, as explained above, to the complexities and sensitivities of the very different bureaucracy, administrative systems and power structures of that vast nation. It continued to be appreciated by Indonesia's other development partners, although many other bilateral agencies were also reducing their development assistance. As has been shown above, the ADB and the World Bank maintained productive engagement with Dutch programming, continued to employ Dutch expertise independently of Dutch funding, and greatly appreciated the flexibility that Netherlands trust funds gave them in the water management sector.

3.3.2 Costs and benefits

EQ 26: 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 Indonesia?

EQ 27: 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 Indonesia. Most of the limited efficiency discussion in the available reviews and evaluations refers to operational considerations rather than costs and benefits.

The ADB's final assessment of PISP concluded that 'the project used its resources efficiently to achieve its revised immediate outcomes and outputs. The weighted average economic internal rate of return (EIRR) for 15 schemes surveyed and analysed during the project completion report mission is 74%' (ADB, 2014, pp. 11-12). The World Bank's ICR review of WISMP (section 3.2.3 above) noted that the ICR for the project had estimated the overall economic rate of return for the project at 25% and concluded that this 'indicated an economically viable and robust project'. But, as noted earlier, the ICR review questioned the evidence for the claim that the project had actually caused increases in productivity, and, given the lack of data, rated the project's efficiency as 'modest' (World Bank, 2014, np). IOB's impact study of the two projects pointed out that 'even if infrastructure is successfully operated and maintained it is not guaranteed to provide the expected results (increased farm production and income)', and questioned whether 'the current focus on improving the irrigation sector is the most effective and efficient solution to the problem… the projects certainly achieved some of the intended results, mostly at output level and most

stakeholders also report positively about them, but … a more profound discussion is needed on the desired objectives and the most efficient way to achieve them' (Schenk & Heun, 2017, pp. 53-54).

Table 3.3 shows how few of the activities funded through the EKN's delegated budget underwent any kind of MTR or evaluation. The evaluation of the pilot dredging project (Vroege, 2010) provides useful analysis of operational efficiency but does not quantify costs per beneficiary or comment on whether the project kept to schedule and budget. The only other evaluation shown in Table 3.3, of the master planning for the Jakarta coast (Kok et al., 2014) assesses the planning approach and the issues that were being addressed, and does not discuss the efficiency of the investment in the planning process.

Overall, the growing focus on urban deltas and knowledge sharing in the Indonesia portfolio renders Dutch spending less amenable to the conventional sort of efficiency analysis envisaged by EQs 26 and 27 (see box above). The complex sequence of budget allocations for Jakarta planning over recent years, patched together from various sources by the entrepreneurial managers mentioned in section 3.3.1, would be very difficult to assess in terms of performance against schedule or budget. In the fluid circumstances, it would be hard to say what exactly the schedule and budget were at any point. Calculating the cost per unit of benefit from such investments would be impossible. Detailed empirical analysis of efficiency has never been common in Dutch development co-operation. In the newer modes of international engagement, it may become rarer still.

4

Main findings

The main findings presented below offer an overall assessment of the quality of design and implementation over the review period. For this purpose, it is helpful to test the accuracy of the assumptions made in the implicit theory of change that underlay Dutch support for water management in Indonesia (Figure 1.1). These main findings thus answer EQs 12, 19 and 28 in the evaluation matrix (Annex 2).

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

For this policy review of Dutch aid policy for improved water management, the Indonesian case study is particularly significant. More than the other three nations selected for focused review, Indonesia in some ways represents the future scenario that the Netherlands would hope to see replicated in its other development partner countries. The economy is relatively strong, as are state institutions and resources. Although serious poverty persists in many parts of the country, development assistance is losing its relevance. Indonesia has the resources to solve most of its own problems, or can access international finance for the purpose. There are good opportunities for the Netherlands private sector to engage profitably, although competition is fierce and Dutch marketing must allow for the price disadvantage that its suppliers suffer in Asia. At the same time, despite all these strengths, Indonesian technical and institutional capacity for water resource management still needs to grow. The relevant authorities are willing and interested to maintain and strengthen links with the Netherlands in order to secure training, knowledge management and advisory services whose high quality they recognise.

It is therefore important to learn from the ways in which Dutch policy and programming for support to water management have responded to the challenges and opportunities in this transitional economy. Much changed between 2006 and 2016, although even early in the review period it was clear that conventional bilateral development assistance would cease to be at the centre of Dutch relations with the Indonesian water management sector. In the first half of the review period, major resources continued to be devoted to irrigation, but as contributions to IFI projects. While collaboration remained intensive in several other sub-sectors, the number of funding mechanisms and participating Dutch agencies increased, so that ODA and non-ODA funding managed by the MFA and by other agencies were often combined to deploy mixes of Dutch companies, knowledge institutions, NGOs and water authorities. The structure of co-operation with Indonesia became more complex and diverse. Many stakeholders felt that the complexity and diversity made the structure hard to understand or use (section 4.3 below).

Overall, however, it was clear that Netherlands policy on water management in Indonesia became increasingly committed to commercial engagement, declining use of state funds and early termination of development assistance. It is no longer useful, or even feasible, to focus just on Dutch aid policy for this sector in Indonesia. Instead, the policy process represents Dutch interests and commitments as a whole, creating new co-ordination, planning, administrative, monitoring and reporting challenges as it spans other ministries

in The Hague besides Foreign Affairs. The EKN in Jakarta adjusted accordingly, handling the remaining development co-operation tasks through its economic co-operation department and shifting to a multi-annual planning format (the MIB) that was meant to span all GON planning for relations with Indonesia.

These changes took place against the background of global Dutch policy directions for support to water management, with their growing focus on the loosely named 'delta countries' and, ultimately, the International Water Ambition's emphasis on urban deltas. Thus, while the spectrum of policy stakeholders, funding streams and mechanisms broadened, the principal policy focus narrowed – although, with its strong reputation and its technical and commercial abilities, the Dutch private sector remained engaged in various sub sectors (such as lowland development) where the Dutch government did not. The narrower policy focus was linked to a narrowing of resources in the GON, and arguably represented a commitment to doing less better. The question, at the end of the review period, is whether that narrow policy focus, and the programme priorities that would flow from it, are sufficient. Are they an adequate way, are they the best way to serve the mutual interests of the Netherlands and Indonesia in the water resource management sector?

4.2 Effectiveness

Review of this 11-year portfolio largely affirms the first three assumptions associated with the inferred theory of change for Dutch support to water resource management in Indonesia (section 1.3.3 above). There were certainly gaps in locally available knowledge and expertise that the Netherlands could fill, adding value in the process. There were instances in which Dutch and Indonesian expertise proved synergistic, building long lasting professional relationships and achieving the objectives of their joint programmes. There were also cases where no such synergy could develop, as in the case of NCICD I, because plans for joint work teams did not materialise. Thirdly, the assumption that the Dutch private sector would have the appetite to engage in the Indonesian market certainly proved true. Despite their typically higher costs, Dutch service providers secured many contracts with public and private sector clients for water management work in Indonesia. Implementation of Dutch policy for support to water management was the principal platform for this commercial progress.

As elsewhere in the Netherlands' global support for improved water management, activities in Indonesia included strong engagement in a range of planning processes and related institutional development. As the ToC points out, these efforts were based on the assumption that planning leads to action. The accuracy of this assumption varied. Towards the end of the review period, a decade or more of planning, facilitation and institutional development led to a dry Banger polder. More of all those efforts would be needed to consolidate and sustain the achievement, but real progress had been made. IOB's study found that the major irrigation planning efforts undertaken by PISP and WISMP in the irrigation sector were only partially effective, because although some progress was made with the institutional framework needed for both planning and the implementation of

plans, many weaknesses remained. The ToC assumption that it is socially and institutionally feasible for Netherlands assistance to achieve significant improvements in the quality of Indonesian water management institutions was weak. As in all institutional development, the main drivers for change must come from within a nation and its governance – not from outside. A donor can facilitate the process. It cannot drive it or achieve significant improvements without the domestic commitment and capacity for change to occur. These latter conditions depend on a complex combination of domestic social, economic and political factors at various levels and scales. In Indonesian water management during the review period, that combination of factors was conducive to some progress, but not to complete success.

Most prominently, major Dutch contributions to water management planning in Jakarta made important technical contributions and were effective in leading to major infrastructural investments funded by the GOI and other development partners. But there were significant technical shortcomings too. They included the failure of the overall effort of the GOI and its development partners (in which the Netherlands was only one stakeholder, albeit a significant one) to achieve a comprehensive IWRM approach to the catchment south of the city, the inability to focus enough planning attention on the most urgent priority – improved drinking water supplies, which would slow subsidence – and the way planning slipped into unrealistic and politically unhelpful directions at the 'Great Garuda' stage of this long and continuing saga. By the end of the review period, planning for Jakarta had not yet led to fully effective action, despite the important foundations that had been laid. In the case of Jakarta, water management institutions were among the strongest that this review has studied. But another ToC assumption, that there was political will to convert plans into action, could not fully be met. This is not the place to analyse the politics of Jakarta or the Republic of Indonesia. In some parts of the political framework, the will to act was definitely strong. But other factors evidently prevented the full translation of that will into action.

Other ToC assumptions concerned the technical validity of the water management paradigms and approaches that the Netherlands promoted and supported in Indonesia. Again, the accuracy of the assumption that these were appropriate varied – and so did the effectiveness of the activities applying them. Some of the technical weaknesses in Jakarta planning were mentioned above – although the fact that things are not already worse in the north of the city is largely due to the positive achievements of Dutch-supported planning. In Demak, the 'building with nature' efforts that the Netherlands supported were still at the stage of action research at the end of the review period: achieving some encouraging results but still clearly needing further refinement. Dutch support was partially effective in the further establishment of IWRM concepts and planning approaches, and at least laid the foundations for effective action to save the country's vast peat and lowland resources. But Indonesia, like most other developing and transitional economies, was a difficult environment in which to overlay an additional nationwide institutional framework for water management – in this case river basin territories and organisations – onto an already complex hierarchy of local government systems. Progress was bound to be slow, and the political priority for this new framework was unsurprisingly low. An additional constraint in

Indonesia is the requirement for legislation to be passed and regulations promulgated before much action can be taken; and some Dutch-supported initiatives were criticised for failing to recognise the central role of the Ministry of Home Affairs in many local resource management processes.

Assessing the involvement of Dutch water authorities in support to improved water management in Indonesia spans questions of approach and of effectiveness. With significant expertise, their own revenues from the water taxes that they levy on users, and their own international cooperation budgets, these regional government authorities had a potentially useful role to play as part of the Dutch water sector's engagement with Indonesia. The approach proved viable; although, as in other countries, it worked best as a process of mutual learning by the Dutch authorities and their Indonesian counterparts, and was counterproductive when false assumptions were made about directly transferring Dutch systems and methods to this very different country. The effectiveness of these authorities' interventions was broadly satisfactory, although results took significantly longer to achieve than was usually first envisaged.

Overall, the ToC was correct in assuming that the techniques promoted and used in Dutch-supported interventions were feasible, practical and affordable in Indonesian conditions – although the concept of affordability was complex in Jakarta as an appropriate balance continued to be sought between public and private sector funding for the billions of dollars of investment required. A related and challenging concept was that of user/resident funding for keeping urban areas dry. That is the basis of the Netherlands' own water authorities. It was proposed for the Banger polder, and some elements of it might emerge in Jakarta too. Its acceptability and viability remained to be proved at the end of the review period.

The latter part of the period 2006-2016, as noted above, represented (to repeat the unsatisfactory shorthand) the shift from 'aid' towards 'trade' in Dutch policy and programming for support to water management in Indonesia. The effectiveness of the more conventional development assistance components of this 11-year portfolio – Aceh sea defence, the EMRP, IWRM planning, PISP, WISMP, the Banger polder, Jakarta pilot dredging – ranged from weak to adequate. There were clear failings, some satisfactory results and some promising outcomes that have yet to be consolidated. This assessment must, of course, be based on the incomplete performance and evaluation reporting that is available. The effectiveness of the less conventional, more 'trade'-related activities – notably the Jakarta activities and many of the PvW subsidies and commissions – must be judged even more qualitatively. Many of them were not reported or assessed as thoroughly as Dutch development assistance used to be.

Piloting and partnering strategies proved partially effective. While the Netherlands continued to be a valued partner for IFIs, the effectiveness of the activities so supported was incomplete. As a mode of promoting the Dutch water sector, partnership was effective, as municipal and water management authorities in the Netherlands developed constructive long-term relationships with Indonesia. Predictably, some pilots proved unsuccessful;

others are work in progress, and some were clearly effective and have led to larger-scale and/or longer-term implementation.

Qualitative assessment of the complex, interlocking body of work that emerged in the Indonesia portfolio does highlight another important dimension of effectiveness – in the field of the 'soft power' to which this study has repeatedly referred. Through the JCP, through various training programmes, through the ongoing engagement of various Dutch knowledge institutions and water authorities in a range of water management initiatives in Indonesia, and through the efforts of the Delegated Representative and the EKN, the Netherlands managed to maintain its respected and pre-eminent position as the partner of choice for Indonesia – whenever it could avoid being relegated by price factors. The Dutch water sector largely succeeded in the delicate task of proving its relevance and its value, despite the fact that its Asian competitors were so much cheaper and so much better resourced. Realism was necessary: the Netherlands is a small and distant country, with a smaller gross domestic product than Indonesia. There was an important element of realism in the apparently successful manoeuvring that led to the three-way agreement to work with the Republic of Korea on further Jakarta water management planning and implementation. But there was no doubt that the Netherlands continued to punch far above its weight as a leading water management partner for Indonesia.

4.3 Efficiency

Across the 11 years under review, the effectiveness of Dutch support to water resource management in Indonesia was thus partial, but real. From the perspective of efficiency, these results were achieved despite, as much as because of, the way that the management of the portfolio was designed. As in Dutch-supported water management programming elsewhere, the monitoring data collected and reported were wholly inadequate for the empirical analysis of efficiency. In organisational and management terms, it is possible to offer some qualitative conclusions.

The evolution of the Netherlands' approach to supporting improved water management, as applied to Indonesia, meant that this was no longer 'aid' policy; it was a broader, interministerial concept of collaboration that ultimately had a narrower thematic focus ('urban deltas') while involving more Dutch institutional stakeholders, funding channels and administrative mechanisms. Although the EKN delegated budget remained larger, the RVO became an increasingly important actor in the overall process.

From some points of view this was a more efficient arrangement, given the evolving focus of overall Dutch policy and the need for flexible, adaptive management in The Hague and Jakarta. PvW, in particular, enabled managers to secure small- to medium-scale funding relatively quickly in response to evolving needs and contingencies in broad, ongoing support efforts – most notably, Jakarta water and flood management. The 'delta team' for Indonesia, and below that the 'management' ('regie-')team at working level, understood how the more complex system worked and could usually deploy it to good advantage.

One of the inferred ToC assumptions for the Indonesia programme was that the expanded suite of methods and tools were relevant, complementary, effective and efficient. From some points of view, as shown above, this would appear to be true. But, despite the amount of work that was accomplished, some senior Dutch informants disagreed, saying that the system was too complicated to be fully fit for purpose – but that, because so many stakeholders were involved in The Hague, the prospects of reforming it were poor. From this perspective, the achievements of the entrepreneurial Dutch managers most directly involved in the Netherlands-Indonesia water management were despite the organisational arrangements, more than because of them.

This is a policy evaluation, and it is important to conclude these remarks on efficiency from a policy perspective – which links to the evaluation perspective. The conventional aid policy cycle of projects with design documents, targets, MTRs and final evaluations was far from completely followed. But at least it provided scope, in theory, for an empirical and evidence-based assessment of performance and the reasons for it. The more recent interministerial system that has begun to replace those conventional arrangements in Indonesia is more adaptive, flexible and organic – and less systematically reported or assessed.

One of this country study's final evaluation questions asks whether, in Indonesia, the implicit Netherlands theory of change with regard to water management policy made realistic assumptions about how efficiently the policy could be implemented. In fact, there was probably no point in the 11-year review period when the approach was so systematically spelled out that such assumptions were explicitly stated. This is an approach that has developed gradually over the period, learning by doing. It has resulted in a system that can achieve relatively quick and focused action but lacks institutional and organisational coherence.

5

Recommendations

Realistically speaking, the policy options for Netherlands support to improved water resource management in Indonesia are relatively narrow. The era of conventional development assistance is almost over. Policy will continue to be built around the principle of mutually beneficial partnership, in which Indonesia recognises the value of Dutch advice and expertise and the Netherlands seeks modes of engagement that require dwindling amounts of state finance, are commercially viable for its water sector and fulfil the genuine Dutch commitment to the social, economic and environmental welfare of Indonesia.

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 Indonesia. However, drawing on the contextual analysis, findings and conclusions set out above, some suggestions can be made about how to shape that support in the years ahead.

What the Netherlands has to offer to water resource management in Indonesia
- *Technical approaches*
- *Institutional approaches*
- *Planning approaches*
- *Management and facilitation approaches*
- *Skilled human resources*
- *Training*
- *Institutional capacity development*
- *Advisory partnership*
- *Money*

Extract from country study debriefing presentation.

These suggestions in the box above can begin by recalling the debriefing presentation made by the country study team at the end of their visit to Indonesia. This included a listing – reproduced in the box – of what the Netherlands has to offer Indonesia in the field of water management. Money was intentionally put at the end of the list. Above it are a range of less tangible, partially overlapping modes of support that are arguably at least as valuable. Whatever decisions are taken about further collaboration with Indonesia on water resource management should presumably reflect choices about which of them to emphasise.

Policy effectiveness

1) *Frame Dutch water management co-operation with Indonesia in terms of the Sustainable Development Goals.*

Given the increasingly balanced relationship between the Netherlands and Indonesia, and the difficulty of fully aligning all existing policy, including the IWA, with Indonesia's water management challenges, programming for collaboration in this sector should be expressed

in terms of both nations' commitment to the SDGs, including but not restricted to SDG 6. This would provide a sound rationale linking the long-term commitment of the Netherlands to good global citizenship, through pursuit of the SDGs, with its continuing priority for support to water management. Reference to the SDGs should also be used to reaffirm Dutch commitment to helping Indonesia achieve gender equity and maintain a focus on the poorest groups – in water management as in other sectors. Using the SDGs to frame the programme would push awkward references to 'aid', 'trade' and any surrogate terms into the background, and help to emphasise a balanced partnership with shared goals.

2) *Build and capitalise on the Netherlands' profile as 'trusted adviser'.*

As it phases out its conventional development assistance role in Indonesia, the Netherlands should continue to build its role, performance and profile as Indonesia's 'trusted adviser' in the water management sector. This benefits both countries, and furthers the Netherlands' global ambitions for its 'top sector water'. The Netherlands should strive to build the function to span all sub-sectors and challenges in Indonesian water management, including irrigation, lowland/peatland management and river basin planning and management. Sensitively managed in a spirit of mutual learning, contributions by Dutch water authorities should continue, and can make a useful contribution to advisory effectiveness.

3) *Continue the scientific and training dimensions of the Dutch interface with Indonesian water management.*

To fulfil the 'trusted adviser' function as recommended, the Netherlands should continue what this study calls the 'soft power' dimensions of its interface with Indonesian water management. Preparation of JCP Phase III is a good step in the recommended direction. Interaction between knowledge institutions for scientific purposes in water management should offer equal opportunities for Indonesian and Dutch participation Continuation and expansion of training opportunities will achieve major, though intangible, benefits, if the next generation of Indonesian water sector managers are mostly Dutch trained – as so many of the present generation are. Science and training are important uses of Netherlands funding in Indonesia.

4) *In what is planned to be an increasingly commercial relationship, maintain an element of government funding.*

On the foundations laid by development assistance, Netherlands policy expects commercial engagements to dominate Dutch-Indonesian relations in the water management sector in the future. An element of GON funding should be retained. This should support continuation of the Delegated Representative position, with continuing emphasis on this covering all aspects of the sector where the Netherlands can add value – alongside adequate capacity in the EKN for support of the 'trusted adviser' role and the knowledge and capacity aspects of the bilateral relationship as well as the more commercial side. GON funding should also be retained, or reinforced, for the scientific partnerships, training and capacity building recommended above.

Policy efficiency

5) Offer a clear, comprehensive (and, if possible, simplified) statement of Dutch policy for support to water management, linked to an integrated plan showing how it will be applied in Indonesia.

Dutch collaboration with Indonesia in the water management sector represents the GON's policy as a whole, not just MFA policy. Building on and linking to the intergovernmental MoU on cooperation in the water sector, future multiannual plans should include a clear, comprehensive and (if possible) simplified summary statement of how this policy and its (delegated and centrally funded) instruments, facilities and mechanisms fit together. At country level, it may not be possible to achieve much simplification. But, for the water management sector at least, a summary statement of intentions and modalities would be beneficial.

6) Match integrated planning with integrated reporting and assessment.

In consultation with all relevant GON ministries, agencies and teams, the EKN should produce an integrated annual report on all Dutch engagements with and support to the water management sector in Indonesia, including measures of performance against plans. These reports should be one of the inputs to periodic overall assessments of performance that check on the effectiveness and impact of the Dutch water sector's activities in the country.

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Annexes

Annex I Extracts from the Terms of Reference

Theory of change

The inferred ToC for the implementation of the Netherlands water management policy in Indonesia over the period under review (Figure 1.1) takes into account the ToCs outlined in the overall ToR for the evaluation, in particular the two specific ones for water productivity and for water management planning and implementation. 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 11-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 national government authorities. Outputs and outcomes, too, may be at local, catchment or national scale. The arrows representing causal links from left to right across the logic chain are schematic only.

Overall, this inferred ToC for the implementation of Netherlands policy on water management for development in Indonesia is based most centrally on design statements that emerged in 2012, at the time that the policy letter to the Dutch Parliament was produced. The most striking aspect of those statements is its reflection of the different stage reached in Dutch intentions towards this transitional, middle-income economy, as compared to lower-income nations like Bangladesh and Mozambique. The economic target of a stronger and more advantageous engagement of the Dutch water sector in Indonesia was placed alongside the development target of enhanced water management, and consequent livelihood benefits, for Indonesia itself. Although this target is only allocated one of the boxes in the 'impact column' of the ToC diagram, its significance should not be underestimated.

The ToC proposed here 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 Government of Indonesia (GOI) and other development partners would be available and complementary to the Dutch effort.

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 Indonesia.
- 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 Indonesian beneficiaries, including field level staff, 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 1.1. 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. 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 Indonesia 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 Jakarta. 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 Indonesia water management sector, and on Dutch support for that sector, in the Netherlands, Indonesia and elsewhere – including academics, consultants and staff of research institutions and NGOs;
  - staff of the EKN in Jakarta;
  - staff of the relevant ministries and agencies in Indonesia, primarily in Jakarta but to the extent possible also at field level;
  - development partner personnel in Indonesia – bilateral and multilateral donor organisations, and relevant national and international NGOs.

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 Indonesia country case study report);
- a local consultant with expert knowledge of water management in Indonesia;
- the IOB researcher providing documentary and analytical support services (desk based in The Hague, not visiting Indonesia).

Schedule

The proposed schedule for the evaluation is as follows.

Table I.1 Indonesia country case study schedule	
Activity	**Date**
Data and document review	12 September 2016- 6 January 2017
Evaluation mission, Indonesia:	9-27 January
Briefing meeting, EKN, Jakarta	9 January
Interviews, data and document collection, Jakarta (including special attention to NCICD and related activities)	10-16 January
Travel to field	17 January
Field visits, interviews, focus group discussions	18-21 January
Return to Jakarta	22 January
Further interviews, data and document collection, Jakarta	23-26 January
Debriefing presentation, EKN, Jakarta	27 January
Draft report preparation	February
Draft report submission	1 March
Review of draft report, comments to evaluation team	1-15 March
Report revision	16-30 March
Final country case study report	31 March

Annex II 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 Indonesia?	• Analysis of Indonesia social, economic, environmental, institutional context; • Analysis of Netherlands – Indonesia relations; • Analysis of Netherlands policy on development co-operation with Indonesia; • Analysis of Netherlands water policy (global and for Indonesia) before and during review period.	• General literature on Indonesia economy, society, environment, water sector; • Literature on history of Netherlands – Indonesia relations and on Dutch development co-operation strategy for Indonesia; • 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 Indonesia?	• Analysis of Netherlands policy; • Analysis of EKN Jakarta MIBs; • Analysis of project design, implementation, evaluation reports; • Review of conformity/adaptation/divergence.	• Netherlands policy documents; • EKN Jakarta MIBs; • Project documents, including evaluation reports where available; • Key informants.	• Document review; • Interviews.
3. Did Dutch support for water management in Indonesia achieve an appropriate balance between water productivity and water security and safety initiatives?	• Analysis of Indonesia context; • Analysis of EKN Jakarta MIBs; • 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 Indonesia; • EKN Jakarta MIBs; • Project documents, including evaluation reports where available; • Key informants.	• Document review; • Interviews.
4. What modalities, instruments and mechanisms did the Netherlands use in support to water management in Indonesia?	• 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.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
5. What were Netherlands expenditures on water management activities in Indonesia, 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 and 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 Indonesia 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.
Effectiveness			
Water productivity			
7. Did Dutch support contribute to an enhanced water management regime (appropriate infrastructure, technically appropriate and sustainable operating systems, transparent financial management and durable local institutions) for crop production in Indonesia?	• 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 reforms in consultation, planning, disbursement and construction procedures; • Review of key informant opinion (including field level staff); • 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.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
8. Did Netherlands support to an enhanced agricultural water management regime contribute to increased water security and agricultural productivity in Indonesia?	• 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 Indonesia, did Dutch support enhance the national and local institutional environment for and capacity of WUAs for participatory and transparent operation and maintenance (O&M) of water infrastructure?	• Review available analysis of institutional issues and developments in Indonesia water management; • Review available data; • 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 Indonesia, did Netherlands support augment the abilities of individual farmers to use representation, knowledge and skills to improve their access to water and their on-farm (water) management?	• Review available analysis of institutional issues in Indonesia agricultural water management, including changes to local water management organisations and to roles of government agencies; • Review of key informant opinion; • Review of female and male beneficiary opinion.	• Analytical literature on institutional issues; • Data and records on legislation and regulations and their implementation; • (Reported) opinions of intended beneficiaries; • Key informants.	• Document review; • Interviews; • Focus group discussions.
11. In Indonesia, 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;

Table II.1 Evaluation matrix			
Evaluation question	**Analysis and indicators**	**Main sources of information**	**Data collection methods**
12. In Indonesia, 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 through changing governance and support; • Review of key informant opinion.	• Analytical literature on governance and 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 Indonesia?	• 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 Indonesia 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 and in public communications and debates relating to them; • Review of key informant opinion.	• Documentation on water management planning and IWRM in Indonesia; • Documentation on public forums and information campaigns; • Key informants.	• Document review; • Interviews.
15. Did Dutch support in Indonesia 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 GOI; • Assessment of trends in maintenance of water infrastructure; • Assessment of trends in availability and quality of water management data; • Analysis of budge allocation and manpower for plan development and implementation at different scales; • Review of key informant opinion.	• Documentation on water management institutions, legislation, regulations, plans, staffing and budgets; • Documentation on inter-donor and donor-GOI collaboration in water management; • Data on water infrastructure maintenance; • Water management databases; • Key informants.	• Review of relevant literature and datasets; • Interviews.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
16. Have domestic budgets been allocated for the implementation of water management plans whose preparation was supported by the Netherlands in Indonesia?	• Analysis of Indonesia capital and recurrent budget data and accounting mechanisms at different levels.	• Indonesia budget and accounts data.	• Budget data collection with assistance of EKN.
17. Are water management plans whose design was supported by the Netherlands in Indonesia being implemented?	• Analysis of programme completion and evaluation reports; • Review of key informant opinion.	• Documentation on water management in Indonesia; • Key informants.	• Document review; • Interviews.
18. Is the implementation of enhanced water management whose design was supported by the Netherlands in Indonesia 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.
19. In Indonesia, 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.

Table II.1 Evaluation matrix

Evaluation question	Analysis and indicators	Main sources of information	Data collection methods
Cross-cutting issues			
20. Were gender, environment, climate change and other priority Netherlands policy themes effectively mainstreamed in Netherlands-supported water management initiatives in Indonesia?	• 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.
21. Did Netherlands-supported water management initiatives in Indonesia maintain or improve water management benefits for, and levels of management participation of, women and 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; • Analysis of general data on socio-economic trends affecting women and lower income groups. • Review of participant opinion; • Review of key informant opinion.	• Monitoring, completion and evaluation reports; • Socio-economic data and reporting, e.g. from research agencies; • Participants; • Key informants.	• Document review; • Interviews; • Focus group discussions.
22. Did implementation of Netherlands water management policy in Indonesia 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?	• 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 Indonesia; • Review of frameworks, structures, procedures and capacity for exchange of knowledge and skills; • 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			
23. 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 Indonesia, and enhance complementarity and synergy of activities?	• Review evaluations of Netherlands-funded programmes and analysis of the Indonesia water management sector generally for assessments of Netherlands performance; • Assess perceptions of Netherlands performance in Indonesia among government, EKN, donor partner and civil society informants.	• Analysis of Indonesia water management sector and of Netherlands performance within the sector; • Key informants.	• Document review; • Interviews.
24. Did the involvement of the Dutch water sector in Indonesia lead to information, knowledge and technologies that are relevant and useable in the Indonesia 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 Indonesia water management sectors (including resource management specialists, geographic information services and knowledge institutions) for evidence on any such transfer.	• Analysis of Indonesia water management sector and of Netherlands contributions of information, knowledge and technologies; • Key informants.	• Document review; • Interviews.
25. Did the involvement of the Dutch water sector in Indonesia strengthen the commitment and activities of other donors, policy-making structures and/or implementing agencies in the Indonesia water sector?	• Interview key informants in GOI, development partner agencies and civil society for evidence of any positive contribution.	• Relevant records on inter-donor consultation; • Key informants.	• Document review; • Interviews.
26. 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 Indonesia?	• 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.

Table II.1 Evaluation matrix			
Evaluation question	**Analysis and indicators**	**Main sources of information**	**Data collection methods**
27. 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.
28. In Indonesia, 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.
Policy options[26]			
29. In Indonesia, 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; • Analyse general trends in governance and management of water in Indonesia over review period; • Review of key informant opinion.	• Project completion and evaluation reports; • Literature on water sector reform and performance; • Key informants.	• Document review; • Interviews.
30. In Indonesia, 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.

[26] 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 III Project data

Table III.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, ordered by start date. This chronological presentation helps to show the sequence of activities, and the varying thematic emphasis, over the review period.

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

No.	Project Name	Start	End	Project budget EUR	Expenditures 2006-2016[27] EUR
2263	Water Resources and Irrigation Sector Management Programme (WISMP), Phase I	Jul 03	Dec 10	10,894,683	9,649,683
1735	Participatory Sector Irrigation Project (PISP)	Jan 04	Dec 12	11,431,500	11,016,500
12915	Aceh Nias SD Consultancy	Mar 06	Mar 09	9,007,907	9,007,908
15702	Master Plan EMRP	Mar 07	Jul 08	1,982,396	1,982,396
18187	Dredging pilot Jakarta	Jul 08	Oct 09	2,472,117	2,472,117
18452	IWRM Citarum	Dec 08	Dec 12	4,263,520	4,263,520
23583	Jakarta Coastal Dev Strategy	Dec 11	Dec 14	429,213	429,213
24620	Banger polder	Oct 12	Jun 16	165,000	156,750
24472	Master Planning Jakarta Coast	Nov 12	Dec 14	3,500,000	3,500,000
25437	Indonesia Irrigated Sector Project (IISP)	May 13	Dec 14	1,164,000	1,164,000
27230	Delegated Repr. MoU Water	Nov 13	Nov 17	1,800,000	1,052,146
26606	Joint Cooperation Programme II	Jan 14	Jun 15	1,525,000	1,448,750
26619	Rotterdam-DKI Jakarta Training Programme (DUTEP I)	Aug 14	Jun 17	324,607	292,146
28428	Water Availability (WAMI)	Feb 16	Oct 16	225,000	150,000
28427	Consultant NCICD-II	Jun 16	Jun 20	4,000,000	300,000
28449	NCICD II Knowledge Management	Jul 16	Nov 19	1,500,000	150,000
28426	Dutch Water Authorities	Jul 16	Jul 20	200,000	47,500
29379	DUTEP II	Dec 16	Jun 20	330,149	124,745
	Total		**EUR**	**55,215,092**	**47,207,374**

Table III.2 below shows 'a list of (ongoing) water related projects financed by the Netherlands Government, by different funding instruments. The Memorandum of Understanding (MoU) for the cooperation in the field of water serves as an umbrella for the total bilateral cooperation between the Netherlands and Indonesia' (GON, 2016b). This table includes activities in the water supply and sanitation sub-sector, which are not included in the current evaluation.

[27] Note that some projects spent some of their total budgets before 2006. Others that started recently will continue to disburse after 2016.

Table III.2 Overview of MoU projects, 2016

						Project started under MoU	Water Governance and Capacity Building	Water and Climate
General								
Name of the project	**Start date**	**End date**	**Main executing party**	**Budget (EUR)**	**Financing instrument**			
Young Water Professionals Development	17-02-2014	31-12-2015	MDF	414.968	RVO - PvW/ Water Mondiaal	x	x	
Joint Cooperation Programme II	01-06-2014	30-06-2016	Deltares	1.525.000	EKN	x	x	x
Delegated Representative MoU Water	01-01-2014	31-12-2017	Mr. Simon Warmerdam	1.800.000	EKN	x		
			subtotal	*3.739.968*				
Water supply and sanitation								
Name of the project	**Start date**	**End date**	**Main executing party**	**Budget (EUR)**	**Financing instrument**			
Water for Water - Toko Air	01-05-2012	31-12-2014	Aqua-Aero Water Systems	144.845	RVO - PvW		x	
Urban Sanitation Development Program (USDP)	15-07-2009	31-12-2015	RHDHV	15.949.412	EKN		x	x
Sanitation, Hygiene and Water program for Eastern Indonesia (SHAW)	01-04-2010	31-12-2015	Simavi	8.600.000	EKN		x	
Sanitation project Sumbawa	01-10-2013	31-08-2016	Y-consultancy	1.650.000	EKN		x	
Sanitation project Lampung	15-01-2014	15-01-2017	SNV	1.551.000	EKN		x	
Capacity building in education and training programmes (CIPTA KARYA PU)	01-06-2013	30-05-2017	UNESCO-IHE	1.500.000	EP Nuffic - NICHE		x	

Table III.2 Overview of MoU projects, 2016								
Towards pro-poor private investments in water supply, Bandung	01-01-2015	01-01-2019	PDAM Bandung	3.945.000	RVO - PvW		x	x
SEHATI - STBM (Sanitasi Berbasis Masyarakat) Program	01-02-2016	30-06-2019	Simavi	3.000.000	EKN		x	
Urban Sanitation Development Program (USDP II)	01-07-2015	31-05-2020	RHDHV	7.253.000	EKN		x	
			subtotal	*43.593.257*				
Water management/water safety								
Name of the project	**Start date**	**End date**	**Main executing party**	**Budget (EUR)**	**Financing instrument**			
Smart flushing Jakarta Bay	17-12-2015	15-02-2016	Grontmij	36.445	RVO - KF			x
NCICD (Master Planning + PMU support)	01-01-2012	31-03-2016	Witteveen+Bos/RHDHV	4.649.506	EKN + PvW/ Water Mondiaal	x	x	x
Banger Polder Pilot Project	01-10-2012	30-06-2016	HHSK	165.000	EKN	x	x	x
Capacity developent of PUSDIKLAT PU in IWRM Education and Training	01-07-2012	30-06-2016	UNESCO-IHE	2.109.438	EP Nuffic - NICHE		x	x
Rotterdam DKI Jakarta Training Program (DUTEP)	01-08-2014	30-06-2016	Nuffic-Neso	325.000	EKN	x	x	
Adaptive delta management	01-05-2014	01-05-2018	TU Delft	571.664	NWO - UDW		x	x
Capacity development Integrated Coastal Zone Management (ICZM) ITS/ITB	01-02-2016	30-12-2019	TU Delft	2.000.000	EP Nuffic - NICHE		x	x
Securing eroding delta coastlines	01-01-2015	01-01-2020	Ecoshape Consortium	3.042.836	RVO - FDW		x	x
Rotterdam DKI Jakarta Training Program (DUTEP II)	Planned 2016		Nuffic-Neso	300.000	EKN	x	x	
Polder Facility	Planned 2016		HHSK/DWA	200.000	EKN	x	x	x
NCICD II - Knowledge component	Planned 2016			1.500.000	EKN	x	x	x
NCICD II - General consultant	Planned 2016			4.900.000	EKN	x	x	x

Table III.2 Overview of MoU projects, 2016								
NCICD II - G2G support	Planned 2016			443.150	IenM - BOA	x	x	x
			subtotal	*20.243.038*				
Water for food and ecosystems								
Name of the project	**Start date**	**End date**	**Main executing party**	**Budget (EUR)**	**Financing instrument**			
Enhancing food security through hydro-powered pumps	01-09-2014	13-11-2015	Aqysta	117.620	RVO - PvW		x	x
Indonesia Irrigation Sector Program (IISP)	15-05-2013	31-12-2015	Euroconsult Mott MacDonald	1.329.450	EKN		x	x
Global tropical wetland monitoring by radar imaging	01-01-2014	31-12-2015	Sarvision	368.393	RVO - PvW		x	x
Geodata for upgrading smallholders' farming system (G4INDO)	15-09-2014	14-09-2017	WUR	2.420.008	NSO - G4AW		x	x
			subtotal	*4.235.471*				
			TOTAL BUDGET	**71.811.735**				

Source: GON, 2016b.

Table III.3 below gives more detail on the centrally funded activities that were summarised in Table 3.2. The 'Implementation' column combines information from project documentation and information obtained during the field mission in Indonesia.

Table III.3 MFA centrally funded activities with links to Indonesia					
Activity name	**Period**	**Links with other Netherlands-funded activities**	**Implementation**	**Follow up, sustainability**	**Significance for co-operation benefits[28]**
Water management in agriculture					
Agricultural development					
no activities					
Water productivity					
no activities					
no activities					
(Sub) national water management					
(Sub) national water management planning					
no activities					
(Sub) national water management implementation					
(River) basin management					
no activities					
Coastal development					
no activities					
Disaster management					
no activities					
Cross-cutting policy themes					
Climate ((change) adaptation and mitigation)					
no activities					

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

Table III.3 MFA centrally funded activities with links to Indonesia					
Good governance					
Water Integrity Network	Jul 14-Dec 17	CK-Net, Pattiro	WIN was founded by IRC, SIWI, Swedish Water House, Transparency International and the WB Water and sanitation programme and is a network to promote water integrity, to reduce corruption and to improve water sector performance worldwide. Indonesian partners of the network are e.g. CKNET and Pattiro. WIN has one integrated country programme in Indonesia; a pilot of integrity management processes for utilities and river basin organizations, conducted by Pattiro and partners (WIN, 2016). Pilot integrity management process for utilities and RBOs.	Ongoing.	Moderately significant.
Gender					
no activities					
Environment					
Equitable Payments for Watershed Services	Jan 08-Dec 11	Not known.	This initiative from WWF and CARE aims to reduce poverty and increase social justice and equity through watershed conservation. The Indonesia watersheds chosen for this programme are the Upper Kapuas Basin on Borneo and the East Nussa Tenggara on West Timor (Tressierra, 2012). Study embedded in country process?	Not known.	Not significant.
Across water management themes					
Global Water Partnership activities					
Global Water Partnership/ Water Partnership Indonesia	Jul 07-Dec 17	No	Promotes IWRM, notably through the Indonesia Water Partnership (IWP), established 2007. IWP aims to develop a partnership with stakeholders and advocates and supports the implementation of IWRM. Many of the IWP's activities concern advocacy, networking and capacity development (IWP, 2016). Furthermore GWP conducted case studies on 'a watershed approach to coastal zone management in Balikpapan Bay' and Indonesia's water resources policy reform process (GWP, 2012). Government and NGO members (around 20-50% government, 50% NGO – advocacy); member of National Water Council; aims to help government to evaluate; organizes meetings but not really influential; results reported by vice chair IWP as not so good/ mediocre; driven by GWP requirements – prepared country report/ road map to IWRM; no Dutch EKN support, not familiar and no interaction with NWP network or Dutch consultants.	Continues with small funding contribution of GWP, has office in MPWH, as has the South East Asia office; depends on relation with government; NGO involvement at times sensitive.	Not significant.

Table III.3 MFA centrally funded activities with links to Indonesia					
Knowledge institutions' activities					
CapNet	Jan 01-Dec 15	CK-Net – Initiated from UNESCO IHE meeting with global partners in view of capacity building needs; NUFFIC funded NPT project to set up CK.NET.	Funded by the Netherlands and Sweden, the UNDP International Network for Capacity Development in Sustainable Water Management supports 'the South East Asia Regional Network for Capacity development in IWRM aiming to enhance the capacity in IWRM in its region through support for training, education, research and development, and outreach by sharing complementary expertise and resources.' (Cap-Net, 2015, p. 52). Also CapNet supports CK-Net, 'a national network of Indonesian universities, CK-Net started off as a NUFFIC supported project addressing Water Resources and Irrigation Management' (Cap-Net, 2015, p. 52). Then, a case study on Financing WRM at the basin level was conducted in Indonesia (Cap-Net, 2015, p. 32). Global network, outreach through policy briefs, training etc.; has modest institutional set up. CapNet provides small budget for CK-Net. Original idea to become think tank for Indonesia; now network of Indonesian universities (10,000 admin, 8,000 regular meetings).	CK-Net ongoing with CapNet funding, 34 members, focus on RBO professionalisation in water and environment (training modules), also supported by WB.	Not significant.
Urbanising Deltas of the World	Oct 12-Dec 18	One project adaptive delta management Bangladesh and Indonesia – GOI research department and UNESCO-IHE involved in regional exchange meetings	This is a research programme co-ordinated by the Netherlands Organisation for Scientific Research (NWO), funding work by north-south consortia. The first call for proposals resulted in one grant for Indonesia. The project's design was on Adaptive delta management: development, accumulation, and dissemination in Bangladesh and Indonesia (NWO, 2016). Ph.D. study with UNESCO-IHE professional guidance.	Ongoing.	Potentially significant.
Programmatic Support for UNESCO-IHE (Partnership for Water Education)	Jan 02-Dec 20	CapNet, Urbanising Deltas, works with international range of partners including DGIS, ADB, Deltares	Through DUPC (DGIS - UNESCO-IHE Programmatic Co-operation), support is provided for UNESCO-IHE activities in many countries – including several in Indonesia. Regarding efficient use of water these included the optimisation of water allocation in a river basin; University Teaching Qualification and Training. Focussing on IWRM and River Basin Management activities included e.g. provision of educational material on Integrated Flood Management and Hydraulic Engineering Design. (UNESCO-IHE, 2015). 800-900 alumni, diploma courses and about 250 Master's, many working in government and other organisations, projects etc.; involved in various research, exchange and training activities.	Widely known and appreciated by government. Ongoing and preparing adjusted approach focusing more on institutional development based on current needs assessment.	Significant.

Table III.3 MFA centrally funded activities with links to Indonesia					
Multi-donor trust funds					
Water Financing Partnership Facility	Apr 07-Dec 17	ADB projects; indirectly Deltares for WAMI information system on water availability for ADB irrigation project; also Dutch facility young experts at ADB.	The Netherlands contributes to this Asian Development Bank (ADB) facility, which has supported various water management initiatives in Indonesia, including the support to increase regional cooperation and integration, increasing awareness in PID (Participatory Irrigation Development), support of River Basin Organizations and institutional strengthening in IWRM (ADB, 2010). Highly appreciated by ADB staff as flexible funding source, example PPTA/ reassessment of IISP.	Ongoing, for Indonesia used once or twice a year.	Moderately significant.
Water Partnership Programme	Jul 12-Oct 16	WB projects	'The Water Partnership Program (WPP) is a partnership between the WB and the governments of the Netherlands, the United Kingdom, Denmark, and Austria, working together to end poverty and boost shared prosperity through support to investments and analytical work in the water sector.' (WPP, 2016, p. 13). Activities conducted in Indonesia are Water Expert Team (WET) assignments on disaster risk management and the assessment of a new WRM business model (WPP, 2015). Highly appreciated by WB staff as flexible money well spent – was said to at times 'shift the needle' strategically – one example was quoted of multi country meeting that led to key decision making.	Ongoing.	
Promotion of engagement of Dutch water sector					
Young Experts Programme (YEP)	Nov 12-Sep 17	Witteveen & Bos; Deltares	This programme for young Dutch and developing country professionals to work on projects in the water and food security sectors. In Indonesia 11 young experts, 4 Dutch and 7 Indonesian, are active or have graduated from the programme in the water sector. They worked for e.g. Deltares, Witteveen Bos, Waterleidingmaatschappij Drenthe, Akvo, Vitens Evides (YEP, 2016). Example of piloting innovation on waste management.	Ongoing.	Significant, for Dutch and Indonesian expert development and piloting approaches.

Table III.4 presents a quick scan of water resource management activities supported through PvW during the review period. PvW subsidies and commissions in the fields of drinking water and sanitation are excluded. The information is incomplete; blank cells represent cases where it was not possible to get any data. Comments on implementation, links, follow up and sustainability are based on interviews in Jakarta and on the qualitative assessment of the evaluation team.

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Subsidy	06041	Jan 07	Jul 08	Bouwdienst Rijkswaterstaat	Strengthening Tidal Lowland Development (STLD)	Study report produced.	Reportedly a spill over from PvW Phase I.	Material used for other studies, notably the National Lowland Development Strategy.		Not significant.	514,487	499,545
Subsidy	06047	Jun 07	Mar 09	Euroconsult Mott MacDonald	Towards formulation of a national strategy for participative lowland water resource management	Yes.	EMRP	Master plan EMRP funded from delegated budget; current peatland restoration pilot proposal in inception phase in Sumatra for funding Millennium Challenge. (Mott Macdonald, with SNV for smallholder palm oil certification, local NGOs)		Moderately significant.	525,964	508,354

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implement-ation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperat-ion benefits with Indonesia	Original commit-ment (EUR)	Disburse-ments (EUR)
Subsidy	07016	Jul 07	Sep 08	Technische Universiteit Delft	Integrated planning for space and water	Info base and model for spatial planning (including demo-graphic, urbaniza-tion and economic effects)	Java WM strategy plan	Taken up in research model for Java WMS; water allocation modelling; at the time, decentralised institutional context hampered integrated planning. Kabupatens made their own strategic choices.	Now context is somewhat more favourable but government institutional context for spatial planning is still weak.	Moderately significant.	356,867	355,924
Subsidy	07020	May 07	Mar 09	Witteveen+ Bos B.V.	Development pilot polder Semarang and guideline polder development	Yes, provided engineering design.	Banger polder develop-ment.	Yes, found technically sound.	ORET project proposed but not agreed. GOI paid from own budget with interruptions.	Significant.	986,823	885,027
Subsidy	07055	Oct 07	Apr 08	Stichting IHE Delft	Capacity building of the Water Sector in Indonesia with special focus on the Ministry of Public Works	Analysis of capacity needs; study report.	Focus on GOI/MPWH capacity building	Yes, through 12 months training and Master's scholar-ships.	Partial – refer to recent MDF study on capacity building in MPWH.	Moderately significant.	107,738	105,742
Subsidy	3S10034	Jan 11	Nov 11	Witteveen en Bos B.V.	Aquifer Storage and Recovery, Indonesia	Yes, study report.	No.		Reported spin off was commercial engagement.	Not significant.	86,652	78,401

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Commission	A100001	Jan 10	Dec 10	Stichting NFWC	CPWC	Generic project, not specific to Indonesia, started during PvW I. Stichting set up to have nucleus in climate, contributed to conferences. It, not PvW, financed next phase.		Only one workshop.	PvW did not continue to fund the organisation.	Not significant.	999,805	728,615
Commission	A100004	Sep 10	Dec 12	Stichting Deltares	Jakarta Coastal Defence Strategy	Jakarta Flood Management study.	Yes, part of series of projects (State Secretary Knapen got interested during visit to Jakarta; adding EUR 4 million ODA for flood management and coastal defence), see also A120002, A120003.	Yes, through follow up projects dredging, JCS, NCICD.	Canal management and waste disposal in Jakarta is working (bay); WB followed up in the city.	Significant.	890,000	741,206

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implement-ation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperat-ion benefits with Indonesia	Original commit-ment (EUR)	Disburse-ments (EUR)
Com-mission	A110007	Nov 11	May 13	EKN	JCP on climate	Yes.	PvW contribution to JCP Indonesia.	Continuing activities funded from PvW and EKN budget and executed by Deltares with own contribution.	Ongoing twinning relations Dutch and Indonesian institutions – providing research, training, input planning – knowledge building and management; partly depending on Dutch aid funding.	Significant.	200,000	200,000

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Commission	A110009	Jan 11	Mar 13	Euroconsult Mott MacDonald	QANS Lowland Development	QANS quick assessment and nationwide screening carbon emissions – lowland/ peatland development and reorientation on how to continue support based on interest expressed by GOI.	ADB IISP, Deltares work on peatlands applied research.	Known to MPWH Dept. of Irrigation and low land development -links with IISP, preparatory phase. Deltares work on peatland.	Spinoff Deltares work on peatlands with other donors and with paper company – agreement to work on sustainable production with Greenpeace. Info used for WB funded WACLIMAT with Deltares and WUR – mapping low-lands, conservation areas etc.	Significant.	749.671	700,801
Commission	A120002	Mar 12	May 12	IHE Indonesia	JCDS Project Definition Masterplan phase	Report produced.	Linked to JCDS.	JCDS, not yet direct implementation.		Moderately significant.	54,231	54,231
Commission	A120003	Oct 11	Feb 13	Stichting Deltares	Bridging Phase JCDS	Report.	JCDS-NCICD.	JCDS, same as above.	Follow up in NCICD.	Moderately significant.	542,344	0
Commission	A120004	Jan 12	Mar 12	Arcadis B.V.	End of project review JCDS	Report.	JCDS.	Yes, in plan preparation.	NCICD.	Moderately significant.	51,231	51,231

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Commission	A13001	Feb 14	Dec 15	MDF Training and Consultancy	Young Water Development Program	Training provided, in the end only two participants, pilot.	No.	According to Dept. of WRM not effective; need on the job training.	MPWH request for quick scan on capacity building – feeds into dialogue; providing framework for future proposals.	Not significant.	414,968	273,317
Commission	A131402	Jan 13	Dec 13	2Bglobal B.V.	Delta cooperation Indonesia 2013		Knowledge transfer to universities?			Not significant.	8,773	8,773
Commission	A131404	Jan 13	Dec 13	Van Marwijk Advies	Delta cooperation Indonesia 2013	Peatlands study on innovative agriculture without negative environmental effects. Report not as expected; expert apparently had little experience in Indonesia	Various activities on peatlands.	Not known to MPWH Dept. for Irrigation and Lowlands Development.	No.	Not significant.	9,375	9,375

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Commission	A131406	Jan 13	Dec 14	INA	Delta cooperation Indonesia 2013	Kamer van Koophandel [Chamber of Commerce] focus on identification of good Indonesian partners for Dutch companies. Provides paid services, e.g. for market scan.				Moderately significant.	2,185	1,213
Commission	A131414	Jan 13	Dec 13	Van Marwijk Advies	Delta cooperation Indonesia 2013	See A131404, two rows above.					9,934	7,223
Commission	A14035	Jan 14	May 14	Stichting Deltares	Additional reimbursement JCDS	Arranged in connection with a dispute about amounts payable.				Not significant.	13,056	13,056

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Commission	A14036	Mar 14	Jul 14	J.T.L. Yap	Assistance to NUFFIC Study Programme	TOR NUFFIC integrated coastal zone management programme with two universities – ITB and ITS.	NUFFIC – capacity building, at the request of EKN.	Development of materials for on line training, involving UNESCO-IHE lecturers.		Not significant.	18,416	18,416
Commission	A14069	Jul 14	Dec 14	HKV Lijn in Water	NCICD Technical End of Project Review	Report.	Three related activities for review of NCICD.	JCDS/NCICD master planning.	Ongoing.	Moderately significant.	29,996	29,996
Commission	A14070	Jul 14	Dec 14	ARCADIS Nederland NV	NCICD institutional End of Project Review						30,000	30,000
Commission	A14071	Jul 14	Dec 14	Rabobank	NCICD Financial End of Project review / Ton Wouters						30,000	6,859
Commission	A14113	Nov 14	Dec 14	Rebelgroup International B.V.	17 Island Project	Useful input for NCICD II, to integrate 17 islands in NCICD, and generate cross subsidies.	NCICD.	No direct implementation, except two islands with private developers, but work was stopped.	Reclamation and infrastructure work.	Moderately significant.	24,454	24,454

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Commission	A14114	Nov 14	Dec 14	INA – Indonesian Netherlands Association	See A131406 above.						35,405	35,405
Commission	A14123	Dec 14	Apr 15	Dr. R.A. van de Putte	ToR for NCICD II	Generic preparation ToR NCICD II, solid base, material used.	NCICD.	Prepared in April 2015 but took long to start; tender in July 2016.	Partly used.	Moderately significant.	26,620	23,292
Commission	A14128	Nov 14	Dec 14	Stichting Deltares	JCDS Deltares meerwerk	Yes.				Not significant.	46,278	46,278
Commission	A15016	Mar 15	Mar 15	VCK Travel B.V.	Mission of Prof. Kop to comment on lessons of NEDECO Jakarta.	Yes – small report prepared.			No.	Moderately significant.	6,000	4,724
Commission	A15041		Dec 15	INA – Indonesian Netherlands Association	Support Indonesia 2015	See A131406 above.					18,139	0

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Commission	A15043		Dec 15	Holland Marine Projects B.V.	Beurs Maritiem Jakarta	Maritime issues added to scope of PVW; company invited to NL.	No.		No.	Not significant.	8,470	8,120
Commission	A15071		Dec 15	Royal Haskoning DHV Indonesia	Website NCICD Phase I	To manage website and keep it operational.	Integral NCICD website.	Yes.	Handed over to MPWH PUSAir.	Moderately significant.	9,650	0
Commission	A15082	Oct 15	Nov 15	Witteveen + Bos	Support Korea team Planning & Programming	Intention to be present with Korean team to share and keep close – accomplished.	Tripartite MoU with Korea on NCICD preparation.		Ongoing NCICD.	Significant.	49,995	0
Commission	A15083	Oct 15	Nov 15	Haskoning DHV Nederland B.V.	Support Korea-team Institutional						31,625	0
Commission	A15084	Oct 15	Nov 15	Deltares Indonesia	Support Korea-team Hydrology						38,558	0
Commission	A15085	Oct 15	Nov 15	RebelGroup Advisory BV	Support Korea-team Financial & Procurement						39,950	19,975

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implementation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperation benefits with Indonesia	Original commitment (EUR)	Disbursements (EUR)
Subsidy	S12035	Feb 13	Jun 13	Royall-Haskoning DHV B.V.	Water for sustainable food supply	Planning input: country study of areas that should not be urbanised in view of agricultural value for planning purposes – pilot, law was there before the study.	Spatial planning related activities, IISP.	Request for follow up funding. ADB took over funding.	Provided input as part of preparation of ADB loan.	Moderately significant.	116,235	116,235

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implement-ation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperat-ion benefits with Indonesia	Original commit-ment (EUR)	Disburse-ments (EUR)
Subsidy	S13032	Jan 14	Dec 15	Sarvision	Global tropical wetland moni-toring	Demand from Dutch market – Satellite imaging of wetlands, peatlands. Work carried out in isolation, results not known.	No.		RVO does not know if this was received well. Progress was not shared. Not known to Wetlands Indonesia. Deltares reported to have started take up of satellite images providing bottom up info on water demand.	Not significant.	370,393	324,353

Table III.4 Water management activities supported through Partners for Water

Type	Project no.	Start	End	Applicant	Full title; objective	Implement-ation as planned?	Links with other co-operation activities	Follow up	Sustainability	(Potential) significance for cooperat-ion benefits with Indonesia	Original commit-ment (EUR)	Disburse-ments (EUR)
Subsidy	S14013	Sep 14	Nov 15	Aqysta Holding BV	Enhancing Food Security through hydro-pow-ered pumps	Small-scale innovation for farmers – self-pro-pelling small water pump developed by some young engineers – pilots Suma, java, Sulawesi.	No.	Water pump cost around EUR 1,500; two informants mentioned – only suitable for difficult circumstances such as peatland and dryland – not suitable for most of Java being too expensive, also as similar cheaper technologies is available (e.g. floating pump without anchor).	Met parties who showed interest. Bigger success in other countries. Easily replicable technology.	Not significant.	117,620	105,858
Total											6,822,987	6,015,999

Annex IV Persons met

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

Table IV.1 List persons met

Name		Position
Ilham Abla	m	Water Specialist, World Bank
Lilis Agus	f	Extension Division, Agriculture Agency, Demak
Guy J. Alaerts	m	Professor of Knowledge and Capacity Development, Integrated Water Systems and Governance Department, UNESCO-IHE
Martin B. Albrecht	m	Water Specialist, World Bank
Fransiska Dini Ambarsari	f	Head of Division International Co-operation, MPWH
Foyya Aquinao	m	Staff, Directorate of Irrigation and Agriculture, Ministry of Agriculture
Ketut Arsa I	m	Head of Irrigation and Raw Water Division, Water Resources and Spatial Planning Agency, Central Java Province
Apri Susanto Astra	m	Wetlands International Indonesia (Co-ordinator, Building with Nature)
Ayuk	f	Bappeda, Semarang City
Donny Azdan	m	Director, Water Resources, Bappenas – Ministry of National Development Planning
Zevi Azzaino	m	Deputy Director Strategic Planning, MPWH
Bagus	m	MMAF
Barnard	m	MMAF
Rido Miduk S Batubara	m	Director, Coastal and Small Islands, MMAF
Judhi Ari Bawa	m	Head of Technical Planning Irrigation Section-PU, Grobogan District
Wicher Boissevain	m	Country Co-ordinator Indonesia, Mott Macdonald, Jakarta
Louis Braam	m	Rebel Group
Brilliyan P	f	Head of Section 1, Sub Directorate Hydrology, Directorate WRM, MPWH
JanJaap Brinkman	m	Deltares, Jakarta
Budiman	m	MMAF
Victor Coenen	m	Director, Witteveen & Bos, Jakarta
Damenta	m	Head, Sub Directorate Public Works, Directorate General Regional Development, Ministry of Home Affairs
Suseno Darsono	m	Head, SIMA, Semarang
Ratna Dewi	f	Head of Section, Coastal, MPWH

Table IV.1 List persons met		
Name		**Position**
Didik F	m	Wetlands International Indonesia
Willem van Diest	m	Independent consultant, Jakarta
Johan A. van Dijk	m	Business Director a.i., UNESCO-IHE
Djono	m	Head of Section Extension-Agriculture, Grobogan District
Dody	m	DPU, Semarang City
John Duewel	m	Team Leader, IDPM, WISMP II
Pieter van Eijk	m	Wetlands International [Netherlands]
Sief Eljihadi	m	Consultant, Ministry of Home Affairs
Ch. Endang Sw	f	Extension, Demak
Ernis	m	MPWH
D. Faired	m	Head, Section 1, Sub Directorate Public Works, Directorate General Regional Development, Ministry of Home Affairs
M. Zainal Fatah	m	Assistant to Deputy, Water Resources Infrastructure, Co-ordinating Ministry for Economic Affairs
Rik Frenkel	m	Team Leader, Triple-A Team, Jakarta
Poul Grashoff	m	Spatial Planning Engineer, WISMP II
Carel de Groot	m	First Secretary for Water Management, EKN
Peter Halm	m	Executive Director, INA
Sigid Hanandaja	m	Head of Sub Directorate Regulation, Directorate WRM, MPWH
Adi Tri Hananto	m	Secretary, Regional City of Semarang
Sarwo Handayani	f	Former Head, Bappeda DKI Jakarta
Setio Hartono	m	Marine Agency, Demak District
Johan Helmer	m	Hoogheemraadschap Schieland en Krimpenerwaard [Netherlands]
Dadan Hermajanda	m	Co-Team Leader, IDPM, WISMP II
Dardja Hermawan	m	IOPIM (WISMP II) PTL Semarang
Wildan Herwindo	m	Sub Head, Division Dissemination and Co-operation, MPWH
Christien Hukom	f	Programme Officer (Water Management), EKN
A. Irvan AB	m	Blue Forest
Feirully Izhar	m	DKI Jakarta
Karyoso	m	Blue Forest
Giovanni Kela	m	Consultant, Ministry of Home Affairs
Nur Fizili Kifli	f	Head of Division Standardisation and Co-operation, MPWH
Enny Kismiwati	f	Extension, Demak
Melcher Klink	m	Senior Economic Policy Adviser, EKN
Latifawati Kun A	f	Head of Division Extension-Agriculture, Grobogan District

Table IV.1 List persons met		
Name		**Position**
Tuty Kusumawati	f	Head, Bappeda DKI Jakarta
Kuswantoro	m	Wetlands International Indonesia
Helena Lawira	f	Project Officer (Water Sector), ADB
Peter Letitre	m	Deltares, Jakarta
Ivo van der Linden	m	NWP Coordinator Indonesia
Tries Maryati	f	Extension Division, Agriculture Agency, Demak
Bagus Maulana	m	Witteveen & Bos
M. Megaradjasa	f	Member, SIMA, Semarang
Samia Miskad	f	MMAF
Abdul Muhari	m	Head, Coastal Disaster Mitigation Section, MMAF
Abdul Muis	m	Head of Sub Directorate Planning, Directorate Irrigation and Lowland, MPWH
M. Napitupulu	m	Founding Chair, Indonesia Water Partnership
Ika Ningrum	f	Head, Maintenance Section, PU DKI Jakarta
Fegi Nurhabni	f	Head, Coastal Utilisation Section, MMAF
Nuri	m	Bappeda, Semarang City
Tunggul Imam Panudju	m	Director of Irrigation and Agriculture, Ministry of Agriculture
Candra Yulian Pasha	m	Head, Sub-Directorate infrastructure and Transport, Bappeda Grobogan
Marco Piët	m	Royal HaskoningDHV, Jakarta
Prasetyo BY	m	Head, Water Resources and Spatial Planning Agency, Central Java Province
Eko Budi Priyanto	m	Wetlands International Indonesia
P. Puji S	m	Member, SIMA, Semarang
Nining Ngudi Purnamaningtyas	f	Deputy Director for Bilateral Co-operation, Bureau of International Co-operation, Ministry of Environment and Forestry
Hasta Putra	m	MPWH
William M Putuhena	m	Head of Research Centre for Water Resources Research and Development Agency, MPWH
Eric Quincieu	m	Water Resources Specialist, ADB
Rahmanto	m	Head of Section 1, Directorate of Water and Irrigation, Ministry of Agriculture
Rusli Rais	m	Former Team Leader, Sea Defence component, Aceh Nias Sea Defence Project
Gracia Sri Ratna	f	Head of Bilateral Co-operation, International Cooperation Division, MPWH

Table IV.1 List persons met		
Name		**Position**
Nancy Rosma Rini	f	Communications and Public Relations, Bappenas-Ministry of National Development Planning
Slamet Riyanto	m	Member, SIMA, Semarang
M. Adek Rizaldi	m	Directorate River and Coastal, MPWH
Agus Rudyanto	m	Head of Sub Directorate Coastal, Directorate River and Coastal, MPWH
Irfan Saleh	m	Chief, Sub Directorate, Rivers, Lakes and Reservoirs, Bappenas-Ministry of National Development Planning
Imam Santoso	m	Director General of Water Resources, MPWH
Sarifah	f	MMAF
Bagas Satria A	m	Research, Bappeda, Demak District
Siebe Schuur	m	Head, Economic Department, EKN
Heru Setiawan	m	Head of Sub Directorate Co-operation, Directorate. Water Resources Development, MPWH
Hendra Yusran Siry	m	Deputy Director for Coastal Disaster Mitigation and Climate Change Adaptation, MMAF
Safrinal Sofaniadi	m	Bappeda, Semarang City
Nana Storada	m	Head of PIP (Information Centre), City of Semarang
Subiyono	m	Head of Public Works (PU) and Housing Agency, Grobogan District
Airlangga Hani P Sucahyo	m	MPWH
Sugiyanto	m	Head of O&M, Raw Water Section, Grobogan District
Suharto	m	Marine Agency, Demak District
Danis H. Sumadilaga	m	Director General of Research and Development Strategy, MPWH
Dodi Sumardi	m	America-European Section, Bureau of International Co-operation, Ministry of Environment and Forestry
Sumarmi	f	Head of Section 2, Directorate of Irrigation and Agriculture, Ministry of Agriculture
Agus Suprapto	m	Director of Water Resources Management, MPWH
Hari Suprayogi	m	Director of River and Coastal, MPWH
Surya P	m	MMAF
Rob Swartbol	m	Ambassador, EKN
Fadly Haley Tanjung	m	DKI Jakarta
Tesa	f	Smart City, DKI Jakarta
Tessa	f	DKI Jakarta
Anis Malik Thoha	m	Rector, Sultan Agung Islamic University, Semarang
H. Umar	m	Head of Desa Timbul Sloko

Table IV.1 List persons met		
Name		**Position**
Johan Verlinde	m	Municipality of Rotterdam [Netherlands]
Ronald Vernimmen	m	Deltares
Victor	m	DPU, Semarang City
Peter de Vries	m	First Secretary, EKN, Dhaka, Bangladesh
Peter Vroege	m	Project Manager, Royal HaskoningDHV, Jakarta
Wahyu	f	Staff, SIMA, Semarang
Wahyu TD	m	Head of Division Irrigation-PU, Grobogan District
Imam Wahyudi	m	Member, SIMA, Semarang
Simon Warmerdam	m	Delegated Representative Water, Netherlands-Indonesia
Michael van de Watering	m	Royal HaskoningDHV, Jakarta
Wella M	f	MMAF
Weningtyas	f	Blue Forest
Trisasongko Widianto	m	Director of Water Resources Development, MPWH
Widiarto	m	Director, Bureau of Budget Planning and International Co-operation, MPWH
Andi Widyanto	m	Head of Section 1, Sub Directorate Regulation, Directorate Water Resources Management, MPWH
Koos Wieriks	m	Ministry of Infrastructure and the Environment [Netherlands}
Tom Wilms	m	Coastal Engineer, Witteveen & Bos, Jakarta
Dandi Wirustyastuko	m	Head, Policy Analysis, Water Resources Conservation Subdivision, Co-ordinating Ministry for Economic Affairs
Marcus Wishart	m	Water Specialist, World Bank
Jan T.L. Yap	m	Network Manager, CK-Net Indonesia
Nita Yuliati	f	Head of Section technical guidance for Eastern Region, MPWH
Eko Yunianto	m	Head of River, Dam and Coastal Division, Water Resources and Spatial Planning Agency, Central Java Province
Yuswardhanu	m	Head of OM Section, BPSDA Seluna
Tess van der Zee	f	Deputy Head, Economic Department, EKN

Focus group discussions and meetings with WMGs

Date	Place	Women	Men
2 February	Timbul Sloko, Demak District	8	37

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Photo cover: A farmer working in a rice field in the Participatory Irrigation Sector Project (PISP) area. Photo: Joep Schenk.

Photo chapter 1: Coastal protection through building with nature dams in Demak, Java, a Sustainable Water Fund project of Ecoshape. Photo: Carel de Groot.

Photo chapter 2: A cleaned drainage canal in Jakarta, as a result of Dutch planning support. Photo: Carel de Groot.

Photo chapter 3: Installation of a Barsha pump in the Kalu river, Sumba, supported through the Partners for Water programme. Photo: aQysta.

Photo chapter 4: The current seawall at Pluit, Jakarta, in the NCICD targeted area, illustrating the urgency for improving the coastal defence of the city. Photo: Carel de Groot.

Photo chapter 5: An irrigation canal in the Participatory Irrigation Sector Project (PISP) area. Photo: Joep Schenk.

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