

**Ministry of Foreign Affairs** – (Department for Multilateral Cooperation and Climate Change, MKL)

**Meeting in the Council for Development Policy 12 June 2018**

Agenda item 4.c.

- 1. Overall purpose** For discussion and recommendation to the Minister
  
- 2. Title:** Support to UNEP-DHI Partnership-Centre – Sustainable Water Resource Management in the 2030 Agenda
  
- 3. Presentation for Programme Committee:** 23 February 2018

# UNEP-DHI Partnership-Centre – Sustainable Water Resource Management in the 2030 Agenda

<p><b>Key results:</b></p> <p>1) &gt; 140 country report on the status of Integrated Water Resource Management (IWRM) implementation (SDG6.5.1.) submitted based on 1<sup>st</sup> monitoring framework and 2<sup>nd</sup> monitoring framework developed and used by &gt; countries,          - 193 country reports submitted based on in 2<sup>nd</sup> monitoring framework,</p> <p>2) 15-20 countries assisted in identifying challenges and prioritized solutions on IWRM based on SDG6.5.1. monitoring,          - 1 global and 3 regional reports developed on status for IWRM implementation based on SDG6.5.1. monitoring,          - A data portal on IWRM status launched with + 1000 users,          - 10 country fact sheets, including private sector solutions developed and disseminated to countries          - A water solutions dashboard, including private sector solutions launched with + 10000 users,</p> <p>3) 6 countries assisted with TA to strengthen resilience to climate change re. a) urban flooding, b) basin drought and c) coastal issues) and 3000 users of 3 policy or technical guidance products developed,</p> <p>4) 6 countries assisted on solutions to key-water related issues via tools e.g. a) water quality, b) water use efficiency and c) ecosystem services and number of users of policy &amp; technical guidance products.</p> <p>5) 5 mill. USD leveraged and 10 new or strengthened private sector partnerships formed.</p> <p><b>Justification for support:</b></p> <p>- Water issues cut across numerous SDGs and water crises is considered amongst the greatest risks to economies, environment and people. Climate change often results in water stress hitting hardest the poorest and most vulnerable with the least capacity to adapt and strengthen resilience, and links to migration and stability. Denmark is globally recognized for its public and private sector strengths in water management.</p> <p><b>Major risks and challenges:</b></p> <p>- Engaging private sector in the water sector has traditionally been a challenge and will require work on concepts and partnerships.          - Implementation of the planned outcomes will require leveraging of external funding at a gearing rate of 1:1,5. The long-term financial sustainability of the Partnership-Centre will require a strategy for fund-raising internationally based on results achieved.</p>	<p><b>File No.</b></p>	F2 2015-48903																						
	<p><b>Country</b></p>	Multilateral																						
	<p><b>Responsible Unit</b></p>	MKL																						
	<p><b>Sector</b></p>	Water and climate																						
	<p><b>Partner</b></p>	The UNEP-DHI Partnership Centre																						
	<p><i>DKK mill.</i></p>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>20xx</b>	<b>Tot.</b>																	
	<p><b>Commitment</b></p>	32																						
	<p><b>Projected ann. disb.</b></p>	8	8	8	8																			
	<p><b>Duration</b></p>	2018-22																						
	<p><b>Previous grants</b></p>	Siden 2001 i alt 104,9 mio. kr.																						
	<p><b>Finance Act code</b></p>	06.38.02.17 Energi og vandressourcer																						
	<p><b>Head of unit</b></p>	Henriette Ellermann-Kingombe																						
	<p><b>Desk officer</b></p>	Dorthea Damkjær																						
<p><b>Financial officer</b></p>	Ulrik Jørgensen																							
<p><b>Relevant SDGs</b></p>																								
<table border="1"> <tr> <td> No Poverty</td> <td> No Hunger</td> <td> Good Health, Wellbeing</td> <td> Quality Education</td> <td> Gender Equality</td> <td> Clean Water, Sanitation</td> </tr> <tr> <td> Affordable Clean Energy</td> <td> Decent Jobs, Econ. Growth</td> <td> Industry, Innovation, Infrastructure</td> <td> Reduced Inequalities</td> <td> Sustainable Cities, Communities</td> <td> Responsible Consumption &amp; Production</td> </tr> <tr> <td> Climate Action</td> <td> Life below Water</td> <td> Life on Land</td> <td> Peace &amp; Justice, strong Inst.</td> <td> Partnerships for Goals</td> <td></td> </tr> </table>							 No Poverty	 No Hunger	 Good Health, Wellbeing	 Quality Education	 Gender Equality	 Clean Water, Sanitation	 Affordable Clean Energy	 Decent Jobs, Econ. Growth	 Industry, Innovation, Infrastructure	 Reduced Inequalities	 Sustainable Cities, Communities	 Responsible Consumption & Production	 Climate Action	 Life below Water	 Life on Land	 Peace & Justice, strong Inst.	 Partnerships for Goals	
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## Strategic objectives:

Supporting inclusive green growth and stability through effective and innovative water resource management

## Justification for choice of partner:

UNEP and DHI are chosen partners due to the well-established and well-functioning UNEP-DHI Partnership Centre based on the global mandate and convening power of UNEP combined with globally recognized expertise of DHI. The Partnership has a clear value proposition in the fragmented international water architecture; is supporting implementation of development objectives of both Danida and UNEP; feeds into the international climate architecture and delivers high quality support for collaboration partners in countries and regional organizations.

## Summary:

The programme is phase five of Danish support to the UNEP-DHI Partnership Centre. It builds on the mandate of UNEP-DHI and UNEP for supporting countries' reporting on SDG target 6.5.1. (IWRM) and to use that as a platform for dialogue with and within countries on how to strengthen water resource management across sectors and stakeholders, including private sector solution providers and investors. This will be underpinned by providing tools for water resource information management, to address key water challenges and increase resilience and adaption to climate change impact and extreme weather and water events, using the globally recognized expertise of DHI.

## Budget:

Output 1 Countries SDG6.5.1. reports on IWRM implementation to the UN	5,8 DKK mill.
Output 2 Countries IWRM challenges and solutions identified and prioritized based on output 1	7,0 DKK mill.
Output 3 Increased resilience to climate change, e.g. urban flooding, basin drought and coastal issues	9,0 DKK mill.
Output 4 Solutions to key water-related issues, e.g. a) water quality, b) water use efficiency, c) eco system services provided to countries in support of UNEP's Fresh Water Strat	7,0 DKK mill.
Mid-Term review and administration	3,2 DKK mill.
<b>Total</b>	<b>32,0DKK mill.</b>

**Programme Document for  
Sustainable Management of Water Resources in the 2030 Development Agenda  
Supported through the UNEP-DHI Partnership Centre on Water and Environment**

**July 1<sup>st</sup> 2018 – June 30<sup>th</sup> 2022**

**F2 2015-48903**

**Executive Key Points**

**Ensuring clean water for all is a central goal (SDG 6) in the global 2030 agenda for sustainable development.** Water is a human right, critical for livelihoods and food production. Water is generated by ecosystems and climate changes are manifested through drought and extreme floods. Changes in water availability and variability can induce migration and ignite civil conflict.

**Recent global agreements have boosted the demand for action, engagement of all stakeholders, and green solutions.** The SDGs, the Paris Climate Accord and the Sendai Framework for Disaster Risk Reduction provide a common global vision for a sustainable and prosperous World, but the goals cannot be achieved by conventional donor assistance and existing technologies.

**Danish expertise and development experience is well placed to contribute to global solutions.** The UNEP-DHI Centre for Water and Environment is hosted in Denmark by DHI, a private organisation with cutting edge technological expertise and strong private sector collaboration. The Centre draws on this expertise and network to support UN Environment's and UN-Water's global mandates for sustainable development.

**This programme will build on previous results and ongoing activities.** The UNEP-DHI Centre leads the SDG reporting on water resources management from all countries. This provides an excellent platform for further stakeholder dialogue within selected countries to identify solutions to advance the management of water resources.

**The support from Danida will be leveraged through partnerships and additional funding.** The UNEP-DHI Centre has a strong record of accomplishment on collaboration with partners, jointly attracting funding from a variety of sources.

**The programme is aligned with Denmark's development policy and UN Environment's Water Strategy.** The expected outcomes contribute to inclusive and sustainable growth and to stability and protection, and specifically underpins UN Environment's focus on climate resilience and sustainable management of water resources.

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**Annexes as follows:**

- 1) Context analysis
- 2) Partners
- 3) Budget detail
- 4) Communications plan
- 5) Process action plan
- 6) Summary of appraisal recommendations

# 1 Introduction

The present programme document details the objectives and management arrangements for the development cooperation concerning support to the UNEP-DHI Centre on Water and Environment (UNEP-DHI Centre) as agreed between the parties. The programme document is specifically concerned with Sustainable Management of Water Resources in the 2030 Development Agenda. Financial assistance will be provided from the Government of Denmark to the operations of UNEP-DHI Centre, in support of UN Environment. This support is aligned with the current Danish Development Strategy and UN Environment's Freshwater Strategy 2017 - 2021.

## 1.1 Parties

The direct parties to this programme document are the Danish Ministry of Foreign Affairs (Multilateral Department) also referred to as Danida, and the United Nations Environment Programme (UN Environment). The programme document builds on a long-term partnership between Danida, UN Environment and DHI, as the host for the UNEP-DHI Centre.

## 1.2 Documentation

The present programme document is an annex to a Donor Agreement in the standard UN Environment format between the Danish Ministry of Foreign Affairs (Multilateral Department) and UN Environment (Ecosystems division).

## 1.3 Contributions

Denmark, represented by Danida, commits to a contribution to the engagement of DKK 32,000,000 (thirty-two million Danish kroner) for the period July 1<sup>st</sup> 2018 – 30<sup>th</sup> June 2022.

# 2 Strategic considerations and justification

## 2.1 Context for the programme and development engagements

As recognized by the Rio+20 Outcome Document, water generated by ecosystems is at the core of sustainable development and is critical for socio-economic development<sup>1</sup>. The UN World Water Development Report of 2016 on Water and Jobs estimated that more than 1.4 billion people, or 42% of the world's total active workforce, are in "heavily water-dependent" jobs in sectors such as agriculture, forestry, fisheries, energy, resource-intensive manufacturing, recycling, building and transport<sup>2</sup>. Freshwater is a finite resource with growing demands from competing uses. Up to two thirds of the World's population are projected to live under water stress by 2025<sup>3</sup>. The World Bank in a recent report<sup>4</sup> emphasized that the impacts of climate change will be channelled primarily through the water cycle with grave and uneven consequences for economic growth, migration and civil conflict. Furthermore, water use for domestic purposes, agriculture and industry are all

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<sup>1</sup> UN General Assembly (2012), The Future We Want: [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/66/288&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E)

<sup>2</sup> UN Water (2016), World Water Development Report - Water and Jobs: <http://unesdoc.unesco.org/images/0024/002440/244040e.pdf>

<sup>3</sup> <http://www.un.org/waterforlifedecade/scarcity.shtml>, <http://www.fao.org/3/a-aq444e.pdf>

<sup>4</sup> <http://www.worldbank.org/en/topic/water/publication/high-and-dry-climate-change-water-and-the-economy>

generating wastewater and causing increased pollution<sup>5</sup>. In recognition of the broad value and significant threats to freshwater, the World Economic Forum’s annual Global Risks Reports have consistently ranked “water crises” as amongst the greatest risks to economies, environments and people<sup>6</sup>.

These concerns, linked to development issues, climate change, and stability, led to a dedicated SDG on Water (SDG-6) approved by UN Member States in September 2015 as part of Agenda 2030. The new substantive targets under SDG-6 (i.e. Targets 6.3 – 6.6) address water pollution, water quality, competing uses, water use efficiency, water governance and water related ecosystem services. These are all core to UN Environment’s global mandate.

Apart from the dedicated SDG on water, the dependence on adequate, reliable and clean water resources is fundamental and evident throughout the 2030 Agenda. Most of the water-related interlinkages are synergistic, so that the targets in SDG-6 reinforce and supports targets in the other SDGs, but there are also water-related trade-offs that need careful attention when implementing the 2030 Agenda<sup>7</sup>. Of particular importance is the impact of water-related disasters (floods and drought, linked to climate change<sup>8</sup>) addressed in SDG 11 on sustainable cities and SDG 13 on climate.

UN Environment’s activities related to water<sup>9</sup> align with Agenda 2030, focusing on pollution, integrated water resources management, ecosystems and disasters. UN Environment is the custodian agency for three of the core indicators under SDG 6. The UNEP-DHI Centre has the responsibility of assisting the monitoring and reporting of SDG target 6.5: “By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate”. This target directly underpins the other water-related sustainable development goals and targets, and the data reported by countries gives an excellent starting point for identifying key water issues and how they might be addressed and provides an entry point to addressing system change and private sector engagement. Furthermore, the principles of IWRM look to reconcile various uses and user groups, reducing risk of conflict and enabling increased resource use efficiency, thereby supporting inclusive green growth and stability.

Denmark’s development cooperation strategy<sup>10</sup> is founded upon the SDG’s. The SDGs are mutually supportive, and reaching the set targets requires integrated solutions across sectors. The SDGs further require a paradigm shift in terms of development cooperation. This shift includes a strong focus on using development assistance in a more catalytic way to mobilize finance, knowledge and technologies from all relevant stakeholders, and especially the private sector, since SDG target cannot be met by ODA alone. Therefore, Denmark increasingly engages in, promotes and supports partnerships that can support a catalytic approach in prioritized areas of interest and prioritized geographies.

This programme seeks to align the work of the UNEP-DHI Centre over the coming years with UN Environment’s latest Freshwater Strategy (2017-2021) and with Danida’s Strategy for Development Cooperation and Humanitarian Action (2017-2021), utilizing DHI’s expert knowledge and cutting-edge technologies in the field of water management, to better assist countries in achieving the cross-sectoral water-related Sustainable Development Goals (SDGs). Given the massive financial gap between the estimated funds required to achieve the SDGs, compared to current government spending levels, including ODA, particular emphasis will be given to creating an enabling environment for the engagement of the private sector (see sections 2.3 and 2.4).

<sup>5</sup> [https://uneplive.unep.org/media/docs/assessments/unep\\_wwqa\\_report\\_web.pdf](https://uneplive.unep.org/media/docs/assessments/unep_wwqa_report_web.pdf)

<sup>6</sup> World Economic Forum (2015), <https://www.weforum.org/agenda/2015/01/why-world-water-crises-are-a-top-global-risk/>

<sup>7</sup> E.g. water demands for economic growth, food, biofuel, hydropower. UNEP-DHI led the preparation of a UN-Water Analytical Brief on interlinkages, <http://www.unwater.org/publications/water-sanitation-interlinkages-across-2030-agenda-sustainable-development/>

<sup>8</sup> 2018 report from World Economic Forum, <http://reports.weforum.org/global-risks-2018/global-risks-landscape-2018/#landscape>

<sup>9</sup> <http://web.unep.org/ecosystems/freshwater/resources/publications/un-environments-freshwater-strategy-2017-2021> . Reference is also made to UNEA 3 resolution on addressing water pollution to protect and restore water-related ecosystems

<sup>10</sup> <http://um.dk/da/danida/strategi%20og%20prioriteter/>

## 2.2 Results and learnings from previous cooperation

The UNEP-DHI Centre has been in operation since 1996 and has been co-funded by UN Environment, Danida and DHI since 2001. During this time, the quality and relevance of the work of the Centre has resulted in it becoming a core resource for UN Environment's work on freshwater issues and in delivering its Programmes of Work and Freshwater Strategies. The Centre has attained global recognition for its work in promoting sustainable water resources management. . Examples of recent results are shown in the text box below.

1. **Supporting SDG target 6.5 on integrated water resources management (IWRM implementation):** Core SDG indicator 6.5.1 on IWRM implementation developed, pilot tested, approved by the UN, rolled out in +180 countries, stakeholder workshops in +30 countries data collected from +155 countries, contribution to UN-Water Synthesis Report (<http://iwrmdataportal.unepdhi.org/iwrmonitoring.html>)
2. **Establishing a Water Monitoring and Reporting system for all 54 African countries:** A web-based system for AMCOW's annual reporting to the African Union developed, pilot tested, training provided for +40 countries (<http://www.africawat-sanreports.org/IndicatorReporting/home>)
3. **Exploring water linkages across the 2030 Agenda:** UN-Water Analytical Brief published to promote integrated implementation of the SDGs (<http://www.unwater.org/publications/water-sanitation-interlinkages-across-2030-agenda-sustainable-development/>)
4. **Improving the use of indicators in basin management:** A flexible classification system for water indicators with meta-data documentation for +100 indicators. Guide (web link) and on-line data portal (<http://www.waterindicatorbuilder.com/home>)
5. **Compilation of climate adaptation technologies for the water sector:** +100 technologies documented (<https://www.ctc-n.org/news/new-publication-102-water-technologies-climate-change-adaptation>)
6. **Assessing the status of the World's 286 shared (transboundary) river basins:** A data portal with maps and fact sheets developed with World leading partners for the GEF (<http://twap-rivers.org/>)
7. **Providing tools for flood and drought management in river basins:** A package of on-line tools based on satellite data and water information systems developed and piloted in the Volta, Lake Victoria and Chao Phraya basins, available for all shared river basins (<http://www.flooddroughtmonitor.com/home>)
8. **Technical assistance to Laos for ecosystem-based adaptation in six cities:** Assessment of flood-prone areas and identification of response options, technical contribution to a project submitted to GCF.
9. **Explaining integrated water resources management through gaming:** Aqua Republica, an on-line serious game targeted at high school and undergraduate students (<http://danida.aquarepublica.com/login>)
10. **Developing a drought early warning and forecasting system for Ghana:** A GCF project concept based on the results from the previous example (#7 above), <https://www.ctc-n.org/news/climate-technology-centre-and-green-climate-fund-embark-new-collaboration-support-green>
11. **Facilitating the transfer of adaptation technologies:** A broad range of technology transfer assistance based on requests from +8 countries to the CTCN (UNFCCC Climate Technology Centre and Network)
12. **Building climate change resilience in the coastal regions of Cambodia:** Coastal erosion protection and increased water use efficiency for improved livelihoods and climate change resilience.

The UNEP-DHI Centre operates by drawing on DHI's expertise in water and project implementation, and engaging a broad network of other partners.

The Centre is hosted by DHI, an independent, international advisory and research organization established in Denmark and today represented in all regions of the world with a total of more than 1,100 staff in 30 countries. DHI operates on a not-for-profit basis with affiliation to the Danish Academy for Technical Sciences (ATV) and

is an approved Technological Service Institute<sup>11</sup>. This business model ensures that any profit DHI may gain from its market-based activities is re-invested in further technology development, placing DHI at the forefront of innovation and expertise.

DHI's overall objective is to advance technological development, governance and competence within the fields of water, environment and health. DHI offers a wide range of policy and advisory services as well as cutting-edge technical solutions, including hydrological modelling tools and decision support systems, integrated water resources management, coastal zone and natural resources management. The Centre draws on DHI's expertise on a flexible and demand-driven basis to provide technical support to UNEP's water-related activities.

Through UN Environment, the Centre is a key partner in the joint UN effort to support a global, country-owned monitoring and reporting of the water-related SDG targets. The Centre leads the global monitoring on IWRM (target 6.5) and contributes to other target teams under the GEMI<sup>12</sup> Initiative. This role is based on the Centre's long-term engagement in the UN-Water activities, and extensive experience in successfully undertaking global assessments, such as global Status Reports on IWRM for the UN, and the recent global assessment of all 286 transboundary river basins<sup>13</sup>

At the regional level, the Centre has provided support to the African Ministers' Council on Water (AMCOW) as part of the African Union on regional assessment, technical assistance, and the development of an extensive Pan-African Water Monitoring and Evaluation system linked to the SDGs. At the basin level, the Centre is engaged in developing tools for floods and drought management in Africa and Asia. The Centre has initiated a partnership with WWF and CI to develop a common system of indicators for basin planning and management, as well as monitoring and reporting.

The Centre is part of the international climate architecture as a member of the UNFCCC's Climate Technology Centre and Network (CTCN) consortium. In this role, it provides expert technical assistance in response to requests from developing countries in developing and implementing projects and accessing financial support for climate change adaptation plans and technologies related to water, as aligned with national adaptation plans, technology needs assessments, Nationally Determined Contributions etc.

#### **The lessons learnt from the engagement to date include:**

- **A technically strong host for the Centre is essential:** Direct access to DHI's strong base of experts and international recognition is of significant value
- **Partnership are important:** UNEP-DHI Centre's approach enhances outreach and engagement (e.g. DHI, African Ministers' Council on Water, UN-Water, Climate Technology Centre and Network, CEO Water Mandate, Green Climate Fund etc.)
- **UN Environment branding is important for influencing global agendas:** UN Environment provides a unique and important entry point for promoting shared interests
- **Programme funding extends reach:** The core funding provided to UNEP-DHI Centre can be used to attract additional resources, which allows engagement in a broader range of activities and enhances outreach
- **Improved reporting on outcomes and impacts:** Greater attention needs to be given to monitoring and documentation of outcomes and impacts
- **Longer-term sustainability of interventions:** Greater attention needs to be given to project selection and design to better ensure the longer-term sustainability of interventions

<sup>11</sup> A network of independent Danish research and technology organisations under the auspices of the Danish Ministry of Science, Innovation and Higher Education.

<sup>12</sup> Integrated SDG 6 Monitoring Initiative, coordinated by UN-Water, <http://www.sdg6monitoring.org/>

<sup>13</sup> GEF Transboundary Waters Assessment Programme (TWAP) River Basin component, <http://twap-rivers.org/>

## 2.3 Strategic framework, objective and expected outcomes

The framework reflects the strategic interests, competencies and ambitions of the partner organizations, as well as where they believe they can come together, through the UNEP-DHI Centre, to make a positive contribution towards the **Development Objective of “Supporting inclusive green growth and stability through effective and innovative water resources management”**. The development objective directly reflects two of the four strategic aims in Denmark’s development policy (#3 on inclusive, sustainable growth and development and #1 on security and development – peace, stability and protection)<sup>14</sup>.

The strategic approach is to build on the strong role and mandate of UNEP-DHI Centre and UN Environment for supporting countries’ reporting on SDG Target 6.5 (IWRM implementation) and to use that as a platform for a dialogue with and within countries on how to strengthen water resources management across sectors and stakeholders, including those from the private sector. This will be underpinned by providing tools for water resources information management, to address key water challenges and increase the resilience to climate change impacts and extreme water events, utilizing the strong expertise available at DHI.

There are many global actors supporting the SDGs, including in the field of water. The main strength of the UNEP-DHI Centre is its ability to link and apply the technical expertise at DHI with the global mandate of UN Environment. The Centre has a strong record of accomplishment on collaboration with partners that complement the Centre in terms of outreach, country presence and sector focus<sup>15</sup>. The UNEP-DHI Centre will engage in new partnerships to enhance the uptake and application of solutions to water related issues that have been prioritized by countries and river basin organizations.

Delivering on the expected results with comparatively modest budget will require a flexible approach, which enables the UNEP-DHI Centre to develop and explore, as well as seize and leverage, emerging opportunities. While the outcomes described below form the operational framework for the Centre, annual work plans will provide the required detail on specific activities. These work plans will be agreed between UN Environment and DHI, with input from the Advisory Board, and will be subject to annual reporting (see also Management Arrangements section). The global and regional scope will be supplemented with more in-depth activities in selected geographies, including those of interest to UN Environment, DHI and those within the Danida Strategy (section 2.5), as well as where Danida has posted green growth advisors.

While key partners are listed in the section below (2.4), particular attention will be given to supporting entry points for private sector engagement, such as

- Corporate Social Responsibility (CSR), e.g. certification schemes for water stewardship
- Companies’ own water security concerns, e.g. translating SDG indicators into corporate metrics, and
- Green technologies as a business opportunity, e.g. green infrastructure, smart water use, new treatment methods.

The monitoring and reporting activities in Outcome 1 will provide the foundation of the Centre’s activities. Outcome 2 will explore ways to address the barriers identified by the work undertaken as part of Outcome 1. Outcome 3 specifically addresses climate resilience related to water while Outcome 4 addresses broader water management challenges related to SDG 6. Communication of results will be integrated in all outcome areas to inform actions and attract support for scaling up.

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<sup>14</sup> Ibid, page 5

<sup>15</sup> E.g. IUCN, IWMI, GWP, IWA, UNDP, WHO, CEO Water Mandate, WWF

### **2.3.1 Outcome 1: Countries report on the status of IWRM implementation to the United Nations on a periodic basis in line with agreed global reporting timelines.**

A specific indicator on IWRM implementation (SDG core indicator 6.5.1) is among the comprehensive set of SDG core indicators approved by the UN Statistics Commission. The indicator has recently been classified as Tier 1, which is the highest classification among SDG core indicators. UN Environment is the Custodian Agency for this indicator and UNEP-DHI Centre leads the global monitoring on behalf of UN Environment.

Together with partners, UNEP-DHI Centre has developed the official survey methodology for measuring the status of SDG indicator 6.5.1. Data collected from more than 140 countries in 2017 and early 2018 will be used by UNEP-DHI Centre to help UN-Water prepare the official synthesis report on SDG 6 for consideration by the UN's High Level Political Forum on the SDGs at its meeting in July 2018. There is, however, still substantial and challenging work ahead to achieve truly global, robust and regular monitoring of IWRM implementation. This includes encouraging the remaining countries to participate in the survey; encouraging and supporting participating countries to strengthen the inclusiveness and transparency of their monitoring (some country responses were based on expert assessment only); and working with the monitoring mechanisms for the other indicators under SDG 6 towards an integrated monitoring and reporting for water. Based on this, UNEP-DHI will start to prepare for a second round of SDG reporting to be executed in 2021 (specific timing will be determined by UN SDG processes). Substantial preparatory work, including assessing the strengths, weaknesses and lessons learnt from the first round of baseline monitoring, will be needed before then.

### **2.3.2 Outcome 2: Countries' IWRM challenges and solutions are identified and prioritized based on SDG 6.5.1 monitoring and reporting.**

An important first step in this area for UNEP-DHI Centre will be to prepare and disseminate the more detailed official reports on IWRM implementation. This includes the global report on SDG indicator 6.5.1, and at least two regional reports. Preparation of the regional reports provides an opportunity to engage directly with countries and regional organizations and explore possibilities for further collaboration.

Other work to be undertaken is the development and dissemination of decision support tools aimed at assisting countries identifying and prioritizing challenges and solutions. The first of these to be developed will be the new IWRM data portal, which will display IWRM status data from reporting countries. The second tool will be a number of country fact sheets that provide an overview of challenges and technical solutions in a visual way. The primary use for these is envisioned to be as part of a targeted country approach, where they can be used to support a dialogue with solution providers. A third tool is the online water solutions dashboard, which can be used to identify how barriers to progress can be addressed, and where potential market opportunities lie for solution providers.

Also in this area is support to countries in developing roadmaps, strategies or similar, aimed at strengthening IWRM implementation in countries. The ambition is to advance the water resources planning and management in countries as well as in river basins on a demand-driven basis. The starting point for this work is to build on the platform of stakeholder dialogues initiated by 6.5.1 data collection.

### **2.3.3 Outcome 3: Resilience to climate change and extreme events, e.g. a) urban flooding, b) basin drought and c) coastal issues, increased through technical assistance.**

During the negotiations of Agenda 2030, the climate change impacts on water were separated from the water goal and transferred to SDG 11 on sustainable cities and SDG 13 on climate. Climate change and extreme events were also separately addressed in the 2015 Climate Accord and the Sendai disaster Risk Framework. The focus of assistance to support this outcome will include urban flooding, basin drought and coastal issues, which are key issues challenging countries for which DHI holds strong technical expertise.

Activities undertaken under Outcome 3 will include those relating to the use of tools and technologies for early warning forecasting systems, as well as flood and drought management. Work undertaken will be shaped by country demands and emerging opportunities, as well as collaboration with a range of stakeholders. Such opportunities are expected to arise as part of the UNEP-DHI's ongoing engagement with the UNFCCC's Climate Technology Centre and Network (CTCN), through UN Environment as part of its engagement with the Green Climate Fund (GCF) and the Global Environment Facility (GEF), and as part of a collaboration in support of countries' Technology Needs Assessment (TNA) formulation and follow-up processes.

### **2.3.4 Outcome 4: Solutions to key water-related issues, e.g. a) water quality, b) water use efficiency and c) ecosystem services provided to countries in support of UN Environment's Freshwater Strategy and global mandate.**

Work in these areas involves the application of tools and technologies, such as hydrological modelling and remote sensing, that address identified key water challenges and directly support UN Environment's key focus areas in the field of freshwater. Activities supporting this outcome can range from e-learning and practical guidance on methodology application to multi-year on-the-ground project implementations.

Work to achieve Outcome 4 offers scope for providing highly focused and targeted in-country support as part of a joint initiative including UN Environment, Danida, UNEP-DHI Centre and the private sector. The countries will be selected based on a combination of criteria including (but not necessarily limited to) country needs, prospects for private sector partner engagement, available financing and anticipated level of impact. This approach will provide lessons learnt that could potentially support upscaling of this type of engagement, which more directly involves private sector collaboration.

## **2.4 Key partners and stakeholders**

The main strength of the UNEP-DHI Centre is its ability to link and apply the technical expertise at DHI with the global mandate of UN Environment. The modality of the host agreement with DHI, whereby the Centre can draw upon DHI's large pool of experts on highly flexible terms driven by actual demands, is also a major advantage, allowing responsiveness and agility<sup>16</sup>.

Despite collaboration with UN Environment's regional offices and DHI's 30 country offices, a main weakness is the limited size of the Centre with limited country presence, which is mostly determined by ad hoc project

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<sup>16</sup> As UNEP-DHI Centre does not have a large permanent staff, it can scale up and scale down depending on actual work load, and can also quickly draw on a large pool of experts based on specific demands.

opportunities. To achieve impact on the ground, the Centre therefore needs to engage in strategic partnerships.

The monitoring and reporting of SDG indicator 6.5.1 is carried out as part of UN-Water's integrated monitoring of SDG-6 (the GEMI initiative) in a partnership with seven UN agencies. For more operational work on the ground, and for the engagement with private sector in particular, other partnerships may offer more agility and efficiency, and will be explored.

The Centre has engaged in a collaboration led by Global Water Partnership (GWP) on a joint support programme to countries based on SDG target 6.5 with a joint coordination team composed of GWP, UNEP-DHI and Cap-Net, and a wider group of partners including UN Environment and UNDP.

The Centre has also engaged in a partnership led by CEO Water Mandate (UN Global Compact) with participation from World Resources Institute (WRI), WWF, the Carbon Disclosure Project and The Nature Conservancy, on the development of water targets and metrics for corporate businesses. UNEP-DHI Centre will contribute to this initiative based on the ongoing monitoring and reporting of SDG indicator 6.5.1, and through work on classifying and documenting water indicators for river basin management<sup>17</sup>.

Key envisaged development and delivery partners for this programme include, but are not limited to, a range of Danish partners including: Danida, The Danish Trade Council (Exportrådet), Dansk Industri, DANVA (Danish organization for water utilities) and organizations engaged with the Danish Water Forum. In addition to these are international organizations including UN Environment, UN-Water, UNDP Cap-Net, Global Water Partnership, the CEO Water Mandate, Climate Technology Centre and Network (CTCN), UNEP DTU Centre, International Union for the Conservation of Nature (IUCN), Water Resources Group 2030 of the World Bank, and the International Water Management Institute (IWMI).

The ultimate stakeholders and beneficiaries are the recipient countries, which will primarily consist of a range of developing countries. Assistance provided and geographical scope will be influenced by country demand, scale of needs, potential for impact, Danida and UN Environment focus, and availability of financing, as well as broader partnership opportunities. Examples of countries of particular interest include, but are not limited to, China, Ethiopia, Ghana, India, Indonesia, Kenya, Myanmar, South Africa, Tanzania, Thailand, Uganda and Vietnam.

Gender equity and women's empowerment in water resources management is one of the cornerstones of the Dublin-Rio principles upon which IWRM is founded. Gender plays an intricate role in IWRM, not just in the planning process but also through the stakeholder consultations and in helping to secure and enforce rights and responsibilities relating to many different aspects of use. These aspects are captured in the IWRM survey questions.

The proposed programme, in particular outcomes 1 and 2 focused on integrated water resources management, promote transparency and thus opportunities for strengthening participation, including of women and youth, accountability and non-discrimination. As such it strengthens the conditions for Human Rights Based Approaches to participatory dialogues between right holders (rural and urban citizens including farmers, households, vulnerable groups, and private sector actors) and duty bearers (water managers at multiple levels). The tools developed under components 3 and 4 will strengthen gender equality in addressing water-related issues that are currently gender biased (such as water access, water use, pollution, resilience to floods and drought).

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<sup>17</sup> See <http://www.waterindicatorbuilder.com/home>

## 2.5 Justification

The UNEP-DHI Centre directly supports UN Environment's work on freshwater issues and in delivering UN Environment's Programmes of Work and Freshwater Strategy, where the Centre is recognized as a key resource. The assistance provided to UN Environment has meant that the Centre has become a core member of the team working on the joint UN-Water effort to support the water-related SDG targets.

The Theory of Change section later in this document details the contribution that UNEP-DHI Centre seeks to make in the big picture of the broad development agenda. Given its solid record of accomplishment in partnering and cooperating with other organizations, the Centre is well-placed to achieve the desired impacts laid out in this document, which will require collaboration with multiple actors at a range of levels. As recognized by the most recent external evaluation of the Centre, in terms of effectiveness, the Centre has contributed to its long-term ambitions of strengthening water resources management and making it more sustainable with capacity development, assessments and tools for planning.

The same evaluation found that, rather than employing and maintaining a large core staff, UNEP-DHI Centre draws on DHI staff and external consultants on a demand basis, with DHI staff being provided at a level that is under market-tested rates. Given the range of tasks done, the flexibility needed to react to changing demands and the technical role of the Centre, this approach was judged as highly appropriate. The evaluators found that this approach ensures efficiency, in terms of unit cost levels, productivity, and the presence of adequate controls.

The catalytic role of UNEP-DHI Centre is that it brings together and coordinates inputs from partners and contributes to enhancing awareness and positive change. The applied approach supports the continued use of materials and tools developed in collaboration with the Centre after an activity is considered complete, so the partnership modality utilised also enhances the likelihood of sustainability and upscaling/replication.

## 3 Theory of change

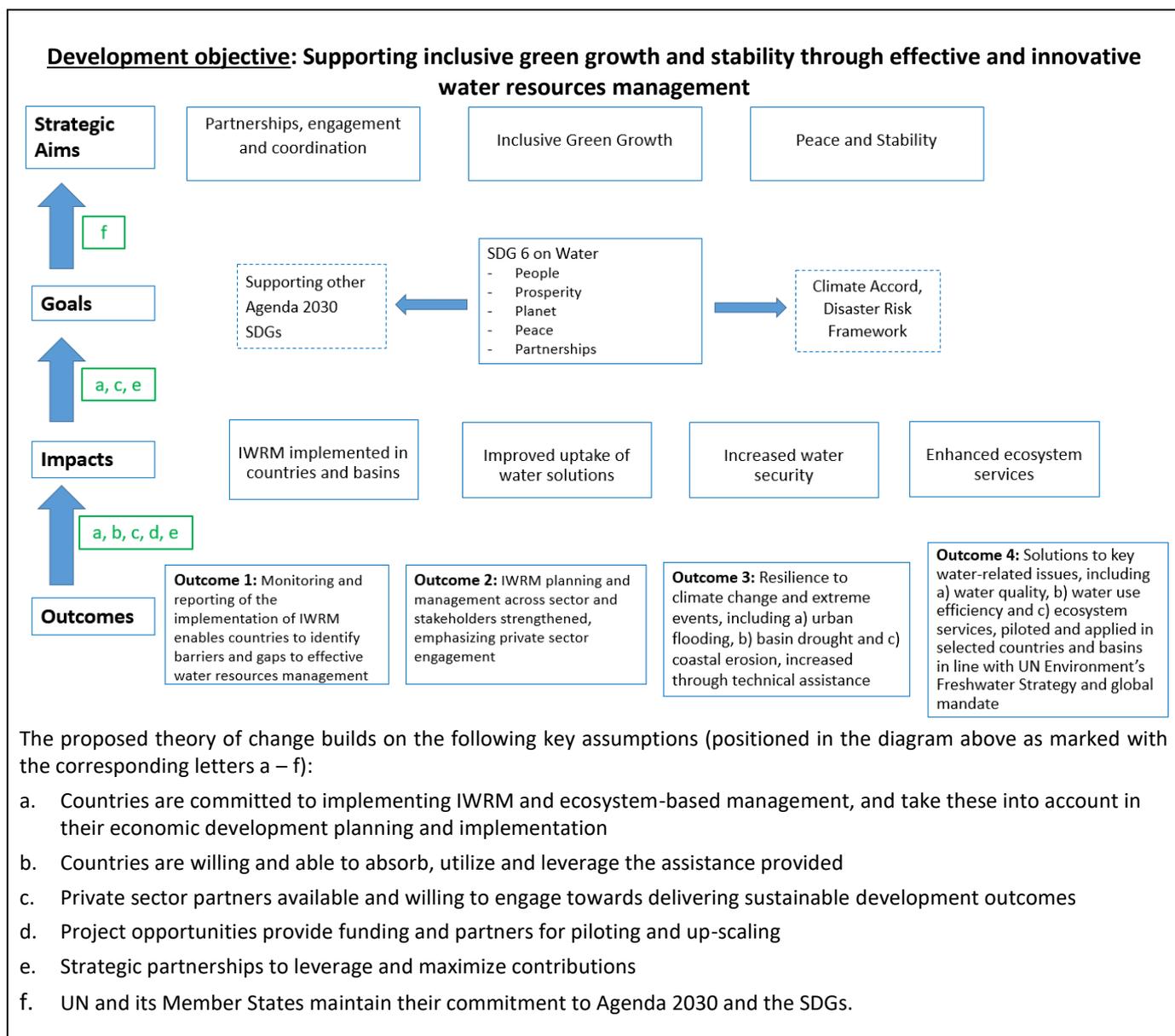
The diagram below illustrates the linkages between the proposed outcomes (described in section 2.3 and further specified in the results framework) through intermediate impacts with the global agenda for sustainable development and further to the strategic aims of inclusive green growth, peace and stability, partnerships, engagement and coordination.

The links from the expected impacts to the goals and strategic aims are quite well established<sup>18</sup>. The horizontal arrows at the goal level indicate the support through the Water SDG towards the other SDGs in Agenda 2030, the 2015 Global Climate Agreement and the Sendai framework on disaster risk reduction.

There is a leap between the stipulated outcomes and the expected impacts, and this reflects that there are many organizations working to improve water resources management and the UNEP-DHI Centre is just one of these. As described in section 2.4 above, a carefully managed partnership approach is required to leverage the comparative advantages of the Centre and maximize its contribution towards joint achievement of the expected impacts.

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<sup>18</sup> UN-Water technical guidance to the SDG negotiations, and <http://um.dk/da/danida/strategi%20og%20prioriteter/>



## 4 Results framework

The objective of the development cooperation among the parties is to support inclusive green growth, climate resilience and stability through effective and innovative water resources management. Progress will be measured through the monitoring framework. For reporting purposes the following key outcome, output and supplementary indicators have been selected to document progress:

<b>Project title</b>	<b>Sustainable Management of Water Resources in the 2030 Development Agenda Supported through the UNEP-DHI Centre on Water and Environment</b>
<b>Development objective</b>	<b>Supporting inclusive green growth, climate resilience and stability through effective and innovative water resources management</b>
<b>Impact Indicator</b>	SDG core indicator 6.5.1 Degree (zero – 100) of IWRM (integrated water resources management) implementation in countries

<b>Baseline</b>	<b>2018</b>	The global average for the degree of IWRM implementation is 48 out of 100, corresponding to 'medium-low'
<b>Target</b>	<b>2030</b>	Long term target (2030) is full implementation of IWRM (score 100) in all countries (SDG target 6.5); progress towards the target will be monitored every 3 – 4 years.
<b>Outcome 1: Countries report on the status of IWRM implementation to the United Nations on a periodic basis in line with agreed global reporting timelines</b>		
Outcome indicator		Number of countries reporting in <u>2<sup>nd</sup> reporting period</u>
Baseline	2018	140 country reports submitted for <u>1<sup>st</sup> reporting period</u>
Target	2022	>140 country reports submitted for <u>2<sup>nd</sup> reporting period</u>
<b>Output 1.1</b>		
Output indicator		Revised official methodology for 2 <sup>nd</sup> Global Monitoring of SDG indicator 6.5.1
Output indicator		Official methodology for 2 <sup>nd</sup> Global Monitoring of SDG indicator 6.5.1 approved and in place
Baseline	2018	1 <sup>st</sup> official methodology
Target	2020	2 <sup>nd</sup> official methodology launched following inputs, revisions, reviews and piloting
<b>Output 1.2</b>		
Output indicator		2 <sup>nd</sup> Global Monitoring and Reporting Framework for SDG indicator 6.5.1 rolled out to all countries with appropriate support
Output indicator		Number of countries supported in <u>2<sup>nd</sup> reporting period</u>
Target	2021	>100 countries supported
Target	2022	193 country reports supported
<b>Outcome 2: Countries' IWRM challenges and solutions are identified and prioritized based on SDG 6.5.1 monitoring and reporting</b>		
Outcome indicator		Number of countries assisted in identifying challenges and prioritizing solutions, or number of people using challenge and solution knowledge products (as appropriate)
Baseline	2018	No countries have been assisted No knowledge products have been developed
Target	2022	a) 15-20 countries assisted in identifying challenges and prioritizing solutions b) 4500 users of various challenge and solution knowledge products
<b>Output 2.1</b>		
Output indicator		Official reports on IWRM status based on 6.5.1 monitoring and reporting
Output indicator		3 official reports developed and disseminated
Target	2018	Global report used by 2000 users
Target	2019	2 regional reports used by 500 users
<b>Output 2.2</b>		
Output indicator		Decision support tools to identify challenges and solutions to improve water resources management
Output indicator		3 tools developed and disseminated
Target	2018	Data portal on IWRM status launched with +1000 users
Target	2019	10 country fact sheets, including private sector solutions, developed and disseminated to selected target countries
Target	2020	Water Solutions Dashboard (including private sector solutions) dashboard launched with +1000 registered users
<b>Output 2.3</b>		
Output indicator		Country roadmaps, strategies or similar aimed at strengthening IWRM implementation in countries, built on 6.5.1 monitoring
Output indicator		Number of countries with roadmaps, strategies or plans, built on 6.5.1 monitoring
Target	2019	4 countries

Target	2020	6 countries
Target	2021	8 countries
Target	2022	10 countries
<b>Outcome 3: Resilience to climate change and extreme events, e.g. a) urban flooding, b) basin drought and c) coastal issues, increased through technical assistance</b>		
Outcome indicator		Number of countries supported with technology tools, or number of people using technical and policy guidance products (as appropriate)
Baseline	2018	No policy or technical guidance products have been developed No countries have been assisted
Target	2022	a) 6 countries assisted b) 3 policy or technical guidance products with 3000 users
Output 3.1		Policy or technical guidance products to mitigate risks and promote resilience, developed and disseminated
Output indicator		Number of policy or technical guidance products and users
Target	2019	1 policy or technical guidance product with 500 users
Target	2020	2 policy or technical guidance products with 1500 users
Target	2022	3 policy or technical guidance products with 3000 users
Output 3.2		Technology tools to mitigate risks and promote resilience applied in countries
Output indicator		Number of supported countries supported
Target	2019	2 countries supported with technology tools
Target	2020	4 countries supported with technology tools
Target	2021	6 countries supported with technology tools
<b>Outcome 4: Solutions to key water-related issues, e.g. a) water quality, b) water use efficiency and c) ecosystem services provided to countries in support of UN Environment's Freshwater Strategy and global mandate</b>		
Outcome indicator		Number of countries supported with technology tools, or number of people using technical and policy guidance (as appropriate)
Baseline	2018	No policy or technical guidance products have been developed No countries have been assisted
Target	2022	a) 6 countries assisted b) 3 policy or technical guidance products with 3000 users
Output 4.1		Policy or technical guidance products to address key water related issues
Output indicator		Number of policy or technical guidance products and users
Target	2019	1 policy or technical guidance product with 500 users
Target	2020	2 policy or technical guidance products with 1500 users
Target	2022	3 policy or technical guidance products with 3000 users
Output 4.2		Technology tools to address key water-related issues applied in countries
Output indicator		Number of supported countries supported
Target	2019	2 countries supported with technology tools
Target	2020	4 countries supported with technology tools
Target	2021	6 countries supported with technology tools

### Supplementary result indicators

Result		Leveraged financial resources to support work
Result indicator		Increment in weighted project pipeline (USD)
Target	2020	2.5 million \$
Target	2022	5 million \$
Result		Strengthened partnerships
Result indicator		Number of new/strengthened private sector partnerships
Target	2020	5
Target	2022	10

## 5 Inputs/budget

A total of 8 million DKK per year over a four-year period will be made available to UN Environment to support the work of UNEP-DHI Centre in Denmark for the engagements described in this document. Annex 3 provides budget information in terms of indicative use by output areas (1-4) and estimates on resources to be leveraged beyond those provided by the key partners, to further support the work.

The table below shows an indicative budget breakdown in USD, based on an annual budget allocation of 8 million DKK. This budget format is the one required by UN Environment and will be used for formal financial reporting and auditing purposes. The exchange rate used for the table is USD1 = DKK6.5 (average exchange rate for 2017). However, the exact USD budget will be determined by the actual USD to DKK exchange rate at time of transfer. As most of the expenses are held in DKK, the budget is quite robust against currency fluctuations. UN Environment shall be authorized to make variations not exceeding 20 per cent from any one budget line item of the budget. This is provided that the total budget allocated by Danida is not exceeded, and on the understanding the any reallocations are captured in financial reports.

The two separate columns to the right show the estimated in-kind contributions from DHI and UN Environment in USD. DHI's in-kind contribution is calculated as the reduction of staff costs compared to market rates and a rebate on the office costs for the Director. UN Environment's in-kind contribution is calculated as the reduction of project support costs (7%) compared to the standard rate of 13%.

Line no.	Description	Annual Budget in USD	Total 4 Year Budget in USD	Total 4 Year Estimated in-kind contribution from DHI	Total 4 Year Estimated in-kind contribution from UN Environment
1101	Director (UNEP administered)	225.000	900.000	-	-
1102	Staff costs at DHI	668.000	2.672.000	296.889	-
1601	DHI travel	70.000	280.000	-	-
2201	Unspecified subcontracts	100.000	400.000	-	-
4301	Office rental	25.000	100.000	88.000	-
5204	UNEP Programme Support Costs (7%)	86.154	344.615	-	295.528
3101	Student Worker Support	20.000	80.000	-	-
5201	Evaluation costs	21.000	84.000	-	-
5301	Communication and outreach costs	15.615	62.460	-	-
	<b>GRAND TOTAL</b>	<b>1.230.769</b>	<b>4.923.075</b>	<b>384.889</b>	<b>295.528</b>

The condition of transfer of funds will be detailed in the Donor Agreement between UN Environment and the Danish Ministry of Foreign Affairs. Funding from the Danish Ministry of Foreign Affairs will be transferred to UN Environment in four equal annual installments. UN Environment will retain an amount to cover the Project Support Costs and the Director's salary, and then transfer the remaining amount together with a part of the UNEP cash contribution to DHI.

DHI offers UN Environment a substantial discount on its staff cost rates amounting to a 19% discount on the average cost rate (calculated and certified according to the Asian Development Bank calculation method<sup>[1]</sup>), as well as a reduction on the office costs for the Director. In many cases, where the activities of the Centre have synergies with DHI's strategic priorities, DHI's in-kind contribution is expected to be greater than that noted above. The inputs of DHI staff will be accounted for based on the actual break-even costs of the individual staff members. UN Environment's contribution is primarily based on a significant reduction in its Programme Support Costs.

## 6 Institutional and Management arrangements

This document is an annex to a bilateral Donor Agreement between the Danish Ministry of Foreign Affairs and UN Environment that describes the management arrangements. A separate project cooperation agreement (PCA) will be made between UN Environment and DHI as the Host Organization for the Centre.

A Framework Agreement between UN Environment and DHI outlines the nature of the long-term collaboration between the two organizations to be undertaken via the Centre. The Centre has an Advisory Board, composed of high standing representatives one from UN Environment, one from the Danish Ministry of Foreign Affairs

<sup>[1]</sup> Asian Development Bank methodology for calculation of cost rates excluding profit.

and one from DHI, as well as 2-4 high standing individuals from strategically relevant organizations or with strategically relevant backgrounds, who serve in their personal capacity. Meetings in the advisory board will provide a platform for taking stock of the progress in the activities described and the development of a proposal for a new framework for continued core funding.

## 7 Financial Management, planning and reporting

While the outputs and outcomes form the operational framework for the Centre, annual work plans will provide the required detail on specific activities. For the purpose of this initiative, annual work plans based on the agreed outputs and outcomes within this project document will be agreed between UN Environment and DHI, with inputs from the Advisory Board, as is the current practice.

Daily project management, including financial aspects and record keeping is handled by DHI as the host institution. Management processes are determined by a combination of the contractual terms and conditions of the agreements between UN Environment and DHI, and DHI's ISO certified business practices. The UN Environment employed Director provides local oversight on UN Environment's behalf, and reviews all reports before formal submission to UN Environment.

UNEP-DHI Centre will produce half-yearly progress and financial reports for UN Environment. The project accounts for UNEP-DHI, hosted by DHI, will be subject to an annual audit carried out by qualified independent accountants. Progress and financial reports by UNEP-DHI will be shared with Danida.

Funding flows from Danida to UN Environment Nairobi where "Programme Support Costs" (PSC) and compensation for the UNEP employed Director are deducted, along with some irregular relatively minor costs relating to travel to meetings of the Advisory Board by staff from UN Environment, Nairobi. The remaining funds flow from UN Environment in Nairobi to DHI.

UN Environment shall provide to Danida the following reports prepared in accordance with UN Environment's accounting and reporting procedures:

- a) A progress report on the status of progress against the results framework in this Programme Document, and including an estimate of leveraged funding and resource use across the main work areas, every February for the duration of the Agreement.
- b) A financial report on the status and use of funding against the UN Environment budget lines specified in this Programme Document, every February for the duration of the Agreement.
- c) A final progress report summarizing the result of activities against the results framework in this Programme Document, and including an estimate of leveraged funding and resource use across the main work areas, within six months after the date of completion or termination of the Agreement.
- d) A final financial report on the status and use of funding against the UN Environment budget lines specified in this Programme Document, within six months after the date of completion or termination of the Agreement.

The project will be subject to a mid-term evaluation organized by UN Environment. The terms of reference will be developed in accordance with directions from UN Environment with inputs from Danida. The results of the evaluation will guide the Centre in its alignment with Danida's Strategy, the UN Environment's Programme of Work and Freshwater Strategy, and in preparation of a subsequent collaboration agreement concerning the UNEP-DHI Centre.

## 8 Risk Management

Below are what are viewed as the main current contextual, programmatic and institutional risks. Monitoring and reporting of risks will be incorporated in the periodic reporting, and will also be included as a discussion point in Advisory Board meetings when appropriate.

### Contextual risks

Risk Factor	Likelihood	Impact	Risk response	Background to assessment
<b>Political will and required resources:</b> The water-related Sustainable Development Goals prove difficult to implement in some geographies, due to a lack of political willingness and resources (human and financial)	Likely in some geographies	Major	Need for up-front focus on geographies where a sufficient level of political willingness and available resources to achieve desired impacts is established before engagement commences.	SDG Implementation Trends – Report by UNDP & UNRISD (2017)  <a href="http://www.undp.org/content/undp/en/home/librarypage/sustainable-development-goals/global-trends---challenges-and-opportunities-in-the-implementation.html">http://www.undp.org/content/undp/en/home/librarypage/sustainable-development-goals/global-trends---challenges-and-opportunities-in-the-implementation.html</a>
<b>Conflict:</b> National or regional conflicts (e.g. political, trade, religious, resources etc.) limit the ability of the Centre to implement	Likely in some geographies	Major	In certain instances, it can be necessary to avoid or withdraw support from selected geographies until it is considered safe to engage. However,, UN Environment has indicated a strong desire to play a greater role in promoting peace and stability to help resolve some national and international disagreements and can be called upon to provide support.	e.g. Interview with Erik Solheim, Executive Director of UN Environment: <a href="https://theglobalobservatory.org/2017/05/environment-peace-sustainable-development/">https://theglobalobservatory.org/2017/05/environment-peace-sustainable-development/</a>

## Programmatic risks

Risk Factor	Likelihood	Impact	Risk response
<b>Ambition vs resources and opportunities:</b> Core funding provided by Danida cannot be sufficiently leveraged to fully achieve the programme outcomes.	Unlikely	Moderate - Major	Biannual reports from the Centre will be used to communicate progress and challenges, as will a planned mid-term evaluation. These should be used by the partners and Advisory Board to monitor and guide work, as well as agree on appropriate actions.
<b>Private sector partner engagement:</b> Despite the best intentions and plans, the level of engagement with the private sector falls below initial expectations.	Likely	Moderate - Major	<p>The Centre has the responsibility of proactively exploring and establishing the best modalities and platforms, and will work closely with colleagues at Danida and UN Environment to identify and engage with key private sector partners, and adjust the approach as required. A key factor will be to establish clear value propositions supported by strategic partnerships, so the private sector can easily see the value of getting engaged as both investors and solution providers - beyond Corporate Social Responsibility (CSR) obligations.</p> <p>Biannual reports from the Centre will be used to communicate progress and challenges, as will a planned mid-term evaluation. These should be used by the partners and Advisory Board to monitor and guide work, as well as agree on appropriate actions.</p>
<b>Partner dependence for delivery:</b> The outcomes of the project are heavily dependent on the direct and indirect involvement of multiple partners. Consequently, if partners' priorities and plans change, the expected project outcomes can be negatively affected.	Likely for some initiatives	Moderate	While the outcomes and means of verification of the project will be clearly specified, there is a deliberate degree of flexibility built into the project design. For example, the project's specific outputs allow the centre to adjust between partners and initiatives in order to maximize opportunities that were impossible to identify during the project formulation phase and ensure outcomes are achieved. The Advisory Board plays an important role in providing strategic guidance in this respect.
<b>Country commitment to sustainability:</b> Following assistance from the Centre, countries do not sustain activities and outcomes	Likely for some initiatives	Moderate	<p>There are a number of steps that will be taken to reduce this risk, including:</p> <ul style="list-style-type: none"> <li>- Designing interventions appropriate to local contexts, needs and capabilities.</li> <li>- Ensuring interventions include post-intervention considerations that specifically take into consideration longer-term social, economic and institutional sustainability considerations</li> <li>- Ensuring political will and support for an intervention (e.g. through appropriate engagement, capturing and highlighting linkages to national priorities, communication of value, results and expected impacts)</li> </ul>

**Institutional risks**

<b>Risk Factor</b>	<b>Likelihood</b>	<b>Impact</b>	<b>Risk response</b>
<b>Key Staff:</b> Staff working on important activities leave the Centre	Uncertain	Minor - Moderate	While some level of staff turnover is unavoidable, staffing of the Centre's activities is under constant review, and use of DHI's Quality Assurance systems ensure strong process and document management. Negative impacts should thereby be minimized.

## Annex 1: Context Analysis

### 1. Overall development challenges, opportunities and risks

#### **Key conclusions and their implications for the project:**

As recognized by the Rio+20 Outcome Document, water generated by ecosystems is at the core of sustainable development and is critical for socio-economic development<sup>19</sup>. The UN World Water Development Report of 2016 on Water and Jobs estimated that more than 1.4 billion people, or 42% of the world's total active workforce, are in "heavily water-dependent" jobs in sectors such as agriculture, forestry, fisheries, energy, resource-intensive manufacturing, recycling, building and transport<sup>20</sup>. Freshwater is a finite resource with growing demands from competing uses. Up to two thirds of the World's population are projected to live under water stress by 2025<sup>21</sup>. Furthermore, water use for domestic purposes, agriculture and industry are all generating wastewater and causing increased pollution<sup>22</sup>.

These concerns, linked to development issues, climate change, and stability, led to a dedicated SDG on Water (SDG-6) approved by UN Member States in September 2015 as part of Agenda 2030<sup>23</sup>. The new substantive targets under SDG-6 (i.e. Targets 6.3 – 6.6) address water pollution, water quality, competing uses, water use efficiency, water governance and water related ecosystem services. These are all core to UN Environment's global mandate.

Apart from the dedicated SDG on water, the dependence on adequate, reliable and clean water resources is fundamental and evident throughout the 2030 Agenda. Most of the water-related interlinkages are synergistic, so that the targets in SDG-6 reinforce and supports targets in the other SDGs, but there are also water-related trade-offs that need careful attention when implementing the 2030 Agenda<sup>24</sup>. Of particular importance is the impact of water-related disasters (floods and drought, linked to climate change<sup>25</sup>) addressed in SDG 11 on sustainable cities and SDG 13 on climate.

This programme builds on the strong role and mandate of UNEP-DHI Centre and UN Environment for supporting countries' reporting on SDG Target 6.5 (IWRM implementation) and will use that as a platform for a dialogue with and within countries on how to strengthen water resources management across sectors and stakeholders at national, regional and city level, including the private sector.

**Key documentation and sources used for the analysis:** Please refer to footnotes below

**Are additional studies / analytic work needed? How and when will it be done?** No

<sup>19</sup> UN General Assembly (2012), The Future We Want: [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/66/288&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E)

<sup>20</sup> UN Water (2016), World Water Development Report - Water and Jobs: <http://unesdoc.unesco.org/images/0024/002440/244040e.pdf>

<sup>21</sup> <http://www.un.org/waterforlifedecade/scarcity.shtml>, <http://www.fao.org/3/a-aq444e.pdf>

<sup>22</sup> [https://uneplive.unep.org/media/docs/assessments/unep\\_wwqa\\_report\\_web.pdf](https://uneplive.unep.org/media/docs/assessments/unep_wwqa_report_web.pdf)

<sup>23</sup> <https://sustainabledevelopment.un.org/post2015/transformingourworld>

<sup>24</sup> E.g. water demands for economic growth, food, biofuel, hydropower. UNEP-DHI led the preparation of a UN-Water Analytical Brief on interlinkages, <http://www.unwater.org/publications/water-sanitation-interlinkages-across-2030-agenda-sustainable-development/>

<sup>25</sup> 2018 report from World Economic Forum, <http://reports.weforum.org/global-risks-2018/global-risks-landscape-2018/#landscape>

## 2. Fragility, conflict, migration and resilience

### **Key conclusions and their implications for the project:**

The World Bank in a recent report<sup>26</sup>, emphasize that the impacts of climate change will be channelled primarily through the water cycle with grave and uneven consequences for economic growth, migration and civil conflict. Water is a vital factor of production, so diminishing water supplies can translate into slower growth that cloud economic prospects. Some regions could see their growth rates decline by as much as 6 percent of GDP by 2050 as a result of water-related losses in agriculture, health, income, and property—sending them into sustained negative growth. Changes in water availability and variability can induce migration and ignite civil conflict<sup>27</sup>. Food price spikes caused by droughts can inflame latent conflicts and drive migration. Where economic growth is impacted by rainfall, episodes of droughts and floods have generated waves of migration and statistical spikes in violence within countries. In a globalized and connected world, such problems are impossible to quarantine<sup>28</sup>. And where large inequities prevail, people move from zones of poverty to regions of prosperity which can lead to increased social tensions. This is why improved water management is crucial in determining whether the world achieves the Sustainable Development Goals (SDGs) and aspirations for reducing poverty and enhancing shared prosperity.

In recognition of the broad value and significant threats to freshwater, the World Economic Forum's annual Global Risks Reports have consistently ranked "water crises" as amongst the greatest risks to economies, environments and people<sup>29</sup>. Other risks that made the list are inextricably tied to water management, access, sanitation, equity, health and ecosystems. They include: extreme weather events; failure of national governance, state collapse or crisis; rapid and massive spread of infectious diseases; and failure of climate change adaptation. Interstate conflict with regional consequences is the biggest risk in terms of likelihood.

A main focus of the proposed programme is to promote integrated approaches to water resources management (IWRM) as a basis for participatory dialogue between all stakeholders, including right holders and duty bearers, via collection and monitoring of data. The unpredictability of extreme weather events is a significant compounding factor for the ability to cope with climate change. This programme will build on tools for drought and flood management and early warning, developed by the UNEP-DHI Centre over the past years. Applying these tools can help increase the resilience of vulnerable countries and communities.

**Key documentation and sources used for the analysis:** Please refer to footnotes below

**Are additional studies / analytic work needed? How and when will it be done?** No

<sup>26</sup> <http://www.worldbank.org/en/topic/water/publication/high-and-dry-climate-change-water-and-the-economy>

<sup>27</sup> [https://www.unesco.nl/sites/default/files/dossier/climate\\_change\\_water\\_stress\\_conflict\\_and\\_migration\\_0.pdf?download=1](https://www.unesco.nl/sites/default/files/dossier/climate_change_water_stress_conflict_and_migration_0.pdf?download=1)

<sup>28</sup> <https://openknowledge.worldbank.org/bitstream/handle/10986/26207/W16005.pdf?sequence=2&isAllowed=y>

<sup>29</sup> World Economic Forum (2015), <https://www.weforum.org/agenda/2015/01/why-world-water-crises-are-a-top-global-risk/>

### 3. Assessment of human rights situation (HRBA) and gender

#### **Key conclusions and their implications for the project:**

On 28 July 2010, through [Resolution 64/292](#)<sup>30</sup>, the United Nations General Assembly explicitly recognized the human right to water and sanitation and acknowledged that clean drinking water and sanitation are essential to the realisation of all human rights. The Resolution calls upon States and international organisations to provide financial resources, help capacity-building and technology transfer to help countries, in particular developing countries, to provide safe, clean, accessible and affordable drinking water and sanitation for all.

The provision of clean drinking water and access to safe sanitation cannot be solved in isolation, but must be seen in a water resources management context<sup>31</sup>. Drinking water is one of many competing uses of water resources, all water is generated by functioning ecosystems as part of the hydrological cycle, and upstream wastewater becomes downstream water intakes. This intricate linkage is clearly articulated in the Outcome Declaration from Rio+20 and is incorporated into Agenda 2030. The outcomes and outputs of this programme directly contribute to equitable sharing of sustainable water resources, from helping countries identify their weaknesses and how they can be addressed, to providing technical guidance and appropriate solutions to address some of their most pressing challenges.

The importance of involving both women and men in the management of water and sanitation and access-related questions has been recognized at the global level, starting from the 1977 United Nations Water Conference at Mar del Plata.

The United Nations Environment Programme (UNEP) is committed to promoting gender equality and women's empowerment across all policies and programmes. UNEP's Policy and Strategy on Gender Equality and the Environment<sup>32</sup> is underpinned and informed by the UN System-wide Action Plan on Gender Equality and the Empowerment of Women. This is and is closely linked with the SDGs, which aim to achieve gender equality and empower all women and girls.

The proposed development engagement, in particular outcomes 1 and 2 focused on integrated water resources management, promote transparency and thus opportunities for strengthening participation, including of women and youth, accountability and non-discrimination. The tools developed and implemented under components 3 and 4 will help strengthen gender equality by addressing water-related issues that are currently gender biased (such as water access, water use, pollution, resilience to floods and drought).

The programme will help in providing a clear status of women's and broader civil society engagement in water management, which can then be further highlighted in special thematic reports that can be used to sensitize and guide action. Moreover, facilitated in-country dialogues during implementation work will help strengthen the conditions for Human Rights Based Approaches to participatory dialogues between right holders (rural and urban citizens including farmers, households, vulnerable groups, and private sector actors) and duty bearers (water managers at multiple levels).

**Key documentation and sources used for the analysis:** Please refer to footnotes below

**Are additional studies / analytic work needed? How and when will it be done?** No

<sup>30</sup> <http://www.un.org/es/comun/docs/?symbol=A/RES/64/292&lang=E>

<sup>31</sup> <http://www.unwater.org/publications/water-sanitation-interlinkages-across-2030-agenda-sustainable-development/>

<sup>32</sup> [https://wedocs.unep.org/bitstream/handle/20.500.11822/7642/-Gender equality and the environment A Guide to UNEPs work-2016Gender equality and the environment.pdf.pdf?sequence=3&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/7642/-Gender%20equality%20and%20the%20environment%20A%20Guide%20to%20UNEPs%20work-2016Gender%20equality%20and%20the%20environment.pdf.pdf?sequence=3&isAllowed=y)

#### 4. Inclusive sustainable growth, climate change and environment

##### **Key conclusions and their implications for the project:**

*The 2030 Agenda for Sustainable Development (Transforming Our World) agreed by all countries states: “We recognize that social and economic development depends on the sustainable management of our planet’s natural resources. We are therefore determined to conserve and sustainably use oceans and seas, freshwater resources, as well as forests, mountains and drylands and to protect biodiversity, ecosystems and wildlife.” “We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.”<sup>33</sup>*

Freshwater plays a fundamental role in support of the environment, society and the economy. Ecosystems such as wetlands, rivers, aquifers and lakes are indispensable for life on our planet and are vital for directly ensuring a range of benefits and services such as drinking water, water for food and industry including energy, habitats for aquatic life, and natural solutions for water purification and buffering floods and bridging drought periods, among many others. Managed well to address competing demands and ensure their resilience in the face of climate change, disasters and conflict, freshwater ecosystems contribute to mitigating risks, and promoting stability and trust-building measures. As such, they are essential for sustainable development, peace and security, and human well-being<sup>34</sup>. Goal 6 targets provide protection from overuse, pollution and other pressures, to safeguard the health of ecosystems and the water-related services they provide<sup>35</sup>.

During the negotiations of Agenda 2030, the climate change impacts on water were separated from the water goal and transferred to SDG 11 on sustainable cities and SDG 13 on climate. Climate change and extreme events were also separately addressed in the 2015 Climate Accord and the Sendai disaster Risk Framework<sup>36</sup>. However, water is the primary medium through which we will feel the effects of climate change, and women and vulnerable groups bear the brunt of the adverse impacts. Water availability is becoming less predictable in many places, and increased incidences of flooding threaten to destroy water points and sanitation facilities and contaminate water sources. In some regions, droughts are exacerbating water scarcity and thereby negatively impacting people’s health and productivity.

The UNEP-DHI Centre draws on the strong expertise and experience at DHI, to provide technical assistance that supports UN Environment’s global mandate in in the field of water, environment and development, working with partners in a large number of Member States. This technical assistance is scaled up through additional funding from the Global Environment fund (GEF), the Green Climate Fund (GCF), the Climate Technology Centre and Network (CTCN) and other funding sources

**Key documentation and sources used for the analysis:** Please refer to footnotes below

**Are additional studies / analytic work needed? How and when will it be done?** No

<sup>33</sup> <https://sustainabledevelopment.un.org/post2015/transformingourworld>

<sup>34</sup> <https://www.unenvironment.org/resources/publication/un-environments-freshwater-strategy-2017-2021>

<sup>35</sup> <http://www.unwater.org/publications/water-sanitation-interlinkages-across-2030-agenda-sustainable-development/>

<sup>36</sup> <https://www.unisdr.org/we/coordinate/sendai-framework>

## 5. Capacity of public sector, public financial management and corruption

### **Key conclusions and their implications for the project:**

The proposed programme supports the implementation of the United Nations Environment Programme (UN Environment) Fresh water Strategy. UN Environment is uniquely positioned to contribute to the global freshwater agenda and support Member States, as the leading authority that sets the global environmental agenda and serves as an authoritative advocate for global environmental stewardship. UN Environment is a well-established, trusted and impartial convening organization for numerous environmental issues. UN Environment informs and guides the implementation of international environmental agreements, many of which are also administered by UN Environment. At the United Nations Conference on Sustainable Development in 2012 (Rio+20), the role of UN Environment was strengthened, with Member States asking for the establishment of universal membership by the General Assembly<sup>37</sup>. Member States simultaneously confirmed UN Environment as the programme “that promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system”.

UN Environment is firmly committed to preventing and detecting fraudulent and corrupt practices. UN Environment operations are consistent with the applicable provisions of the UN Charter, the Standards of Conduct for the International Civil Service, the applicable provisions of the United Nations Staff Rules and Regulations, and the UN Environment Financial Rules and Regulations and Procurement Manual. UN Environment will use reasonable efforts to ensure that the utilization of the Contribution conforms to the highest standard of ethical conduct and that every part of the Organization, as well as all individuals acting on behalf of UN Environment, observe the highest standards of ethics and integrity.

UN Environment, in accordance with its regulations, rules and directives, will ensure that any allegations of fraud and corruption in connection with the implementation of the Project are addressed. UN Environment will, in a timely manner and in accordance with its regulations, rules, policies and procedures, provide information to the Danish Government of any substantiated allegations of fraud or corruption, along with details of actions taken by UN Environment to address such allegations<sup>38</sup>.

The UNEP-DHI Centre is administratively hosted by DHI and all financial reporting of activities carried out by DHI staff undergoes independent auditing as part of the reporting procedure.

Design of interventions supporting Member States will be based on evaluations of their capacity at relevant levels of the public sector for policy making, enforcement and service delivery as well as budgetary accountability.

**Key documentation and sources used for the analysis:** Please refer to footnotes below

**Are additional studies / analytic work needed? How and when will it be done?** No

<sup>37</sup> Para 88 in [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/66/288&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/66/288&Lang=E)

<sup>38</sup> This commitment is incorporated into the Donor Agreement for this DED between Denmark and UN Environment

## 6. Matching with Danish strengths and interests, engaging Danish actors, seeking synergy

### **Key conclusions and their implications for the project:**

Denmark's development cooperation strategy<sup>39</sup> implies using development assistance in a more catalytic way to mobilize finance, knowledge and technologies from all relevant stakeholders, and especially the private sector, since SDG target cannot be met by ODA alone. Denmark is globally recognized for both public and private sector strongholds in water. The current programme will strengthen partnerships with private sector stakeholders, including from Denmark. From the stakeholder analysis in section 7, several Danish stakeholders are listed as potential partners. Initial consultations with most of them have been conducted in preparation of the current programme.

UN Environment's activities related to water<sup>40</sup> align with Agenda 2030, focusing on pollution, integrated water resources management, ecosystems and disasters. UN Environment is the custodian agency for three of the core indicators under SDG 6. The UNEP-DHI Centre has the responsibility of assisting the monitoring and reporting of SDG target 6.5: "By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate". This target directly underpins the other water-related sustainable development goals and targets, and the data reported by countries gives an excellent starting point for identifying key water issues and how they might be addressed and provides an entry point to addressing system change and private sector engagement. Furthermore, the principles of IWRM look to reconcile various uses and user groups, reducing risk of conflict and enabling increased resource use efficiency, thereby supporting inclusive green growth and stability.

This development engagement seeks to align the work of the UNEP-DHI Centre over the coming years with UN Environment's latest Freshwater Strategy (2017-2021) and with Danida's Strategy for Development Cooperation and Humanitarian Action (2017-2021), utilizing DHI's expert knowledge and cutting-edge technologies in the field of water management, to better assist countries in achieving the cross-sectoral water-related Sustainable Development Goals (SDGs). Strategic partnerships will be formed and further developed. (see section 7) and synergy will be sought in countries where preferably both UN Environment and Danida have existing engagements such as strategic sector cooperation and posted government-to-government advisors and/or country programmes.

The Centre is part of the international climate architecture as a member of the UNFCCC's Climate Technology Centre and Network (CTCN) consortium. In this role it provides expert technical assistance in response to requests from developing countries in developing and implementing projects and accessing financial support for climate change adaptation plans and technologies related to water, as aligned with national adaptation plans, technology needs assessments, Nationally Determined Contributions etc.

There is a massive financial gap between the estimated funds required to achieve the SDGs, compared to current government spending levels, including ODA, and the need for technology solutions also beyond those developed by the Centre. Particular emphasis will be given to making data and monitoring reports linked to and building from SDG indicator 6.5.1 relevant to both policy makers in countries and to private sector investors and solution providers and thus strengthen private sector engagement, including from Denmark e.g. in collaboration with the Trade Council.

**Key documentation and sources used for the analysis:** Please refer to footnotes below

**Are additional studies / analytic work needed? How and when will it be done?** No

<sup>39</sup> <http://um.dk/da/danida/strategi%20og%20prioriteter/>

<sup>40</sup> <http://web.unep.org/ecosystems/freshwater/resources/publications/un-environments-freshwater-strategy-2017-2021> . Reference is also made to UNEA 3 resolution on addressing water pollution to protect and restore water-related ecosystems

## 7. Stakeholder analysis

### **Key conclusions and their implications for the project:**

The ultimate stakeholders and beneficiaries are the people, including urban citizens, in recipient countries, which will primarily consist of a range of developing countries. Assistance provided and geographical scope will be influenced by country demand, scale of needs, potential for impact, Danida and UN Environment focus, and availability of financing, as well as broader partnership opportunities. Examples of countries of particular interest include, but are not limited to, China, Ethiopia, Ghana, India, Indonesia, Kenya, Myanmar, South Africa, Tanzania, Thailand, Uganda and Vietnam.

The monitoring and reporting of SDG indicator 6.5.1 is carried out as part of UN-Water's integrated monitoring of SDG-6 (the GEMI initiative<sup>41</sup>) in a partnership with seven UN agencies. For more operational work on the ground, and for the engagement with private sector in particular, other partnerships may offer more agility and efficiency, and will be explored.

Key envisaged development and delivery partners for this development engagement include, but are not limited to, a range of Danish partners including: Danida, The Danish Trade Council (Exportrådet), Dansk Industri, DANVA (Danish organization for water utilities) and organizations engaged with the Danish Water Forum. In addition to these are international organizations including UN Environment, UN-Water, UNDP Cap-Net, Global Water Partnership, the CEO Water Mandate, Climate Technology Centre and Network (CTCN), UNEP DTU Centre, International Union for the Conservation of Nature (IUCN), Water Resources Group 2030 of the World Bank, and the International Water Management Institute (IWMI).

The UNEP-DHI Centre has engaged in a collaboration led by Global Water Partnership (GWP) on a joint support programme to countries based on SDG target 6.5 with a joint coordination team composed of GWP, UNEP-DHI and Cap-Net, and a wider group of partners including UN Environment and UNDP.

The Centre has also engaged in a partnership led by CEO Water Mandate (which constitutes the water sector chapter of the UN Global Compact<sup>42</sup>) with participation from World Resources Institute (WRI), WWF, the Carbon Disclosure Project and The Nature Conservancy, on the development of water targets and metrics for corporate businesses. UNEP-DHI Centre will contribute to this initiative based on the ongoing monitoring and reporting of SDG indicator 6.5.1, and through work on classifying and documenting water indicators for river basin management<sup>43</sup>.

**Key documentation and sources used for the analysis:** Please refer to footnotes below

**Are additional studies / analytic work needed? How and when will it be done?** No

<sup>41</sup> <http://www.sdg6monitoring.org/about/components/presenting-gemi/>

<sup>42</sup> <https://ceowatermandate.org/>

<sup>43</sup> <http://www.waterindicatorbuilder.com/home>

## Annex 2: Partners

### 1. Summary of stakeholder analysis

A stakeholder analysis has been presented in Annex 1: Context Analysis, section 7. Annex 2 focuses on the choice of partners i.e. UN Environment and the UNEP-DHI Centre on Water and Environment.

### 2. Criteria for selecting programme partners

The UNEP-DHI Partnership Centre between UN Environment, DHI and Danida:

- Is well established, well-functioning and located in Denmark. It has a clear and strong value proposition in the diverse and fragmented international water architecture by strategically linking the global mandate of UN Environment with the globally recognized expertise of DHI. It is a partnership in accordance with SDG17 and in line with relevant Danish and UN Environment strategies. It builds on UN Environment's global legitimacy, convening power and objective of providing science and expert based input to policymaking and SDG-implementation, which is further strengthened by the expertise of DHI.
- It brings agility and flexibility to the implementation capacity of UN Environment in the water area also prioritized in the Danish development strategy.
- The Centre is part of the international climate architecture. As a member of the UNFCCC's Climate Technology Centre and Network (CTCN) consortium, the Centre cooperates with, for example, the Global Environment Facility, the Green Climate Fund and UN Member States. It provides expert technical assistance in response to developing country support requests that are aligned with national adaptation plans, technology needs assessments, and Nationally Determined Contributions.
- UNEP-DHI has demonstrated ability to deliver high quality support in collaboration with a broad network of partners, and leveraged funding. Strategic partnerships will be scaled up in the current programme.
- It is ready to break new ground exploring modalities and platforms for best engaging private sector – investors and solution providers – including from Denmark, in achieving the water related SDGs where Denmark has global strongholds in both the public and private sector.
- The results framework and planned monitoring have been strengthened and are well aligned with Danida's development objectives.

### 3. Brief presentation of partners

The United Nations Environment Programme (UNEP) is an agency of United Nations that promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment. UNEP is an active member of UN-Water – a body given the mandate to coordinate the efforts of UN entities and international organizations working on water and sanitation issues.

UNEP-DHI Centre has been in operation since 1996 and has been co-funded by UN Environment, Danida and DHI since 2001. The Centre has become a core resource for UN Environment's work on freshwater issues and in delivering its Programmes of Work and Freshwater Strategies. This has been achieved by drawing on DHI's expertise in water and project implementation, and engaging a broad network of other partners.

The host of the Centre, DHI, is an independent, international advisory and research organization established in Denmark and today represented in all regions of the world with a total of more than 1,100 staff in 30

countries. DHI operates on a not-for-profit basis with affiliation to the Danish Academy for Technical Sciences (ATV) and is an approved Technological Service Institute<sup>44</sup>.

#### 4. Summary of key partner features

Partner name <i>What is the name of the partner?</i>	Core business <i>What is the main business, interest and goal of the partner?</i>	Importance <i>How important is the programme for the partner's activity-level (Low, medium high)?</i>	Influence <i>How much influence does the partner have over the programme (low, medium, high)?</i>	Contribution <i>What will be the partner's main contribution?</i>	Capacity <i>What are the main issues emerging from the assessment of the partner's capacity?</i>	Exit strategy <i>What is the strategy for exiting the partnership?</i>
<i>United Nations Environment Programme (UNEP)</i>	<i>The United Nations Environment Programme (UNEP) is an agency of United Nations that promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment.</i>	<i>Low. UNEP had total contributions of USD62.65 million as of August 2017 (last accounts available).</i>	<i>High UNEP is directly involved in the formulation of the initiative. The expected outputs and impacts are in direct support of UNEP's Freshwater Strategy and broader interests.</i>	<i>UNEP will provide oversight of implementation, including guidance on specific focus and content. There is also an in-kind financial contribution, as specified in the budget, an in-kind expertise.</i>	<i>Strength: Global legitimacy and convening power, subject matter knowledge, globally recognized and appreciated role.  Weaknesses: Limited financial and resulting limited human capacity and limited country presence.  Opportunities: This initiative can help to raise UNEP's profile and attract further financial support, also in the role of implementing agency.  Threats: Need to be able to better profile good work and quantify impacts to funders.</i>	<i>No special requirements after end of contract.</i>
<i>DHI</i>	<i>DHI is a not for profit international software development and engineering specialized in hydrological modeling software and advisory services. Headquartered in Denmark, DHI has about 25-30 offices throughout the world and approximately 1100 employees.</i>	<i>Low. DHI had a revenue of about USD17.5 million in 2016 (last accounts available).</i>	<i>Medium. DHI is directly involved in the formulation of the initiative.</i>	<i>As host of the UNEP-DHI Centre, DHI will lead implementation, providing the core of technical expertise, ensuring that all obligations are met, and initiating appropriate action should unforeseen challenges arise. There is also an in-kind financial contribution, as</i>	<i>Strength: Danish organization with globally recognized expertise, and an international reach.  Weaknesses: Limited understanding of the full 2030 Development Agenda.  Opportunities: This initiative can</i>	<i>No special requirements after end of contract.</i>

<sup>44</sup> A network of independent Danish research and technology organisations under the auspices of the Danish Ministry of Science, Innovation and Higher Education.

	<p>While independent, DHI is associated with the Danish Academy of Technical Sciences and maintains a partnership with the United Nations Environment Programme</p>			<p>specified in the budget.</p>	<p>be used to help leverage additional resources to engage DHI expertise, and other skilled experts to the benefit of UNEP and recipient countries.</p> <p>Threats: DHI operates in a commercial and competitive environment where innovation can quickly make some organizations irrelevant.</p>	
<p>UNEP-DHI Centre</p>	<p>Hosted by DHI, the UNEP-DHI Centre has been in operation since 1996 and has been co-funded by UNEP, DHI and Danida since 2001.</p> <p>The Centre is a core resource for UNEP's work on freshwater issues and delivering on its programmes of work and freshwater strategies in support of water related SDGs.</p>	<p>High. While the Centre has typically been able to leverage double the core funding provided by Danida, without core funding operations would be very challenged.</p>	<p>UNEP-DHI Centre has taken lead in developing the programme in accordance with the development objectives of the project partners (Danida, UNEP and DHI).</p>	<p>UNEP-DHI Centre will deliver against the results framework of the product document in accordance with the development objectives of the project partners (Danida, UNEP and DHI).</p>	<p>Strength: Draws on DHI's private sector expertise to support UNEP's global mandate and Danida's development objectives.</p> <p>Weaknesses: Reliant on country demand, untried private partnerships and emerging opportunities to be able to deliver.</p> <p>Opportunities: This initiative can be used to help leverage additional financial and human resources and private sector engagement, including in Denmark.</p> <p>Threats: DHI Needs to leverage more than double core funding to achieve expected outputs and outcomes.</p>	<p>Some activities will continue well beyond the current phase of support to the Centre and will require financing beyond the life of the programme. The Centre will work on securing it's long term financial sustainability</p>

## Annex 3 – Budget details

A total of eight million DKK per year over a four-year period will be made available to UN Environment to support the work of UNEP-DHI Centre in Denmark for the engagements described in this document. Below is an indicative budget breakdown against the four main work areas over the four-year period, shown in DKK, as well as a total USD value. This is not for detailed financial reporting, but for general guidance. Activity based progress reports based on annual work plans (to be agreed between UNEP-DHI, UN Environment and DHI, with input from the Advisory Board) will be used to track and report actual time use.

Also included in the table is a target estimate of leveraged resources. The resources made available from Danida will be supplemented with additional (leveraged) resources from other sources to fully deliver on all outcomes and outputs. Leveraged resources are additional resources –beyond those committed to the project itself at the time of approval– that are mobilized as a direct result of the project. Leveraged resources can be in the form of direct financing or in-kind contributions from other donors, NGOs, foundations, governments, communities or the private sector. An estimated ratio of approximately 1:1.5 Danida to leveraged resources is considered appropriate and realistic. The planned work has been scoped to reflect the scale of the allocated resources, as well as the targeted resources to be leveraged, and is based on UNEP-DHI Centre’s earlier performance in this area.

Main work Areas	Anticipated % of Total Budget	Annual DKK Value of Danida Funding	Total DKK Value of Danida Funding Over 4 Years	Total Approximate USD Value of Danida Funding Over 4 Years	Target Additional Leveraged Resources (1:1.5 ratio) in USD
<b>Outcome 1</b> , “Countries report on the status of IWRM implementation to the United Nations on a periodic basis in line with agreed global reporting timelines”	<b>18%</b>	1,440,000	5,760,000	900,000	1,350,000
<b>Outcome 2</b> , “Countries’ IWRM challenges and solutions are identified and prioritized based on SDG 6.5.1 monitoring and reporting”	<b>22%</b>	1,760,000	7,040,000	1,100,000	1,650,000
<b>Outcome 3</b> , “Resilience to climate change and extreme events, e.g. a) urban flooding, b) basin drought and c) coastal erosion, increased through technical assistance”	<b>28%</b>	2,240,000	8,960,000	1,400,000	2,100,000
<b>Outcome 4</b> , “Solutions to key water-related issues, e.g. a) water quality, b) water use efficiency and c) ecosystem services provided to countries in support of UN Environment’s Freshwater Strategy and global mandate”	<b>22%</b>	1,760,000	7,040,000	1,100,000	1,650,000
<b>Cross cutting:</b> Mid-term evaluation, UN Environment Project Support Costs and office costs (see “inputs/budget” section in main document for more detail)	<b>10%</b>	800,000	3,200,000	500,000	NA
<b>Totals</b>	<b>100%</b>	<b>8,000,000</b>	<b>32,000,000</b>	<b>5,000,000</b>	<b>6,750,000</b>

## Annex 4 – Communications Plan

The UNEP-DHI Centre will use a range of methods and media to communicate information, including on outputs, outcomes and results to a range of stakeholders and adjusted to the actual purpose and context. For example, needs vary from reporting on progress, to attracting other donors and partners (including those from the private sector), as well as disseminating technology tools to users in the field.

The table below provides a general overview of communications based on the outcome areas of the results framework, as well as those that are more cross-cutting in nature. More detailed communication plans will be made for specific projects and activities within the programme, and will be monitored accordingly. Partners, including those representing the private sector, and the Advisory Board will be engaged to provide guidance.

On a more general note, where possible and appropriate, emphasis will be placed on using Information and Communication Technologies (ITCs). For example, data and information will be made available through interactive websites; sophisticated web-based games will be used to sensitize and educate stakeholders; training will be provided both in classic classroom style, but also increasingly via online webinars; and technology tools will be made accessible via online portals.

<b>Cross-cutting</b>				
<b>What?</b> (the message)	<b>When?</b> (the timing)	<b>How?</b> (the mechanism)	<b>Audience(s)</b>	<b>Responsible</b>
Reporting on activities, results and use of funding	Annually	Narrative progress and financial reports	UNEP, Danida, DHI and Advisory Board (internal)	UNEP-DHI Centre and UN Environment
Work Plans for organizing and executing work	Annually	Narrative work plan	UNEP and DHI, as well as the Advisory Board and Danida when appropriate (internal)	UNEP-DHI Centre, DHI and UN Environment, with input from the Advisory Board
Information about the UNEP-DHI Centre, its activities and outputs	Ongoing	Centre's main website, specific project websites, mailing lists, direct mails, publications, presentations in various fora, via partners' communications channels etc.	Political decision-makers, wide range of technical experts, partner organizations, academics (external)	UNEP-DHI Centre and UN Environment on occasion

<b>Outcome 1:</b> Countries report on the status of IWRM implementation to the United Nations on a periodic basis in line with agreed global reporting timelines				
<b>What?</b> (the message)	<b>When?</b> (the timing)	<b>How?</b> (the mechanism)	<b>Audience(s)</b>	<b>Responsible</b>
Status of progress on SDG 6.5.1 at global, regional, national and sub-national levels	2019-2020	Data Portal for 6.5.1 national, regional and global data updated to support Phase 2 processes	Political decision-makers, wide range of technical experts, partner organizations, academics	UNEP-DHI Centre and UN Water Members and Partners
Why SDG 6.5.1 reporting is important and how it will take place	2020	Capacity-building support materials for national monitoring	Country focal points	UNEP-DHI Centre and UN Water Members and Partners
How to undertake SDG 6.5.1 national monitoring and reporting	2020	Country monitoring methodology and monitoring guide revised	Country focal points	UNEP-DHI Centre and UN Water Members and Partners

<b>Outcome 2:</b> Outcome 2: Countries' IWRM challenges and solutions are identified and prioritized based on SDG 6.5.1 monitoring and reporting.				
<b>What?</b> (the message)	<b>When?</b> (the timing)	<b>How?</b> (the mechanism)	<b>Audience(s)</b>	<b>Responsible</b>
Status of progress on SDG 6.5.1 at global, regional, national and sub-national levels	2018-2019 2021-2022	Reports on SDG6.5.1 status	Political decision-makers, wide range of technical experts, partner organizations, academics	UNEP-DHI Centre and UN Water Members and Partners
Country status, problems and possible solutions	2018-2019 2018-2021	Country status briefs that inform national level decision-making about solutions for selected Member States  Water Solutions Dashboard - including private sector solutions	Political and technology-related decision-makers	UNEP-DHI Centre and selected partners
How to strengthen IWRM implementation	2018-2021	Action-oriented IWRM implementation plans for selected countries	Political decision-makers, and a wide range of sector experts	UNEP-DHI Centre and selected partners

<b>Outcome 3: Resilience to climate change and extreme events, e.g. a) urban flooding, b) basin drought and c) coastal issues, increased through technical assistance.</b>				
<b>What?</b> (the message)	<b>When?</b> (the timing)	<b>How?</b> (the mechanism)	<b>Audience(s)</b>	<b>Responsible</b>
Technical guidance on thematic areas	1 x 2019 2 x 2020 3 x 2021 (Cumulative)	Physical and web-based publications and portals such as <a href="http://www.waterindicatorbuilder.com/home">http://www.waterindicatorbuilder.com/home</a>	A wide range of sector experts, and political decision-makers	UNEP-DHI Centre and selected partners
Technology tools to address key water-related issues applied in countries	2019-2021	Web-based e.g. project or tool websites such as <a href="http://fdmt.iwlearn.org/en">http://fdmt.iwlearn.org/en</a>	UNEP and DHI, as well as the Advisory Board and Danida when appropriate	UNEP-DHI Centre and selected partners

<b>Outcome 4: Solutions to key water-related issues, e.g. a) water quality, b) water use efficiency and c) ecosystem services, provided to countries in support of UN Environment's Freshwater Strategy and global mandate</b>				
<b>What?</b> (the message)	<b>When?</b> (the timing)	<b>How?</b> (the mechanism)	<b>Audience(s)</b>	<b>Responsible</b>
Technical guidance on thematic areas	1 x 2019 2 x 2020 3 x 2021 (Cumulative)	Physical and web-based publications and portals such as <a href="http://www.waterindicatorbuilder.com/home">http://www.waterindicatorbuilder.com/home</a>	A wide range of sector experts, and political decision-makers	UNEP-DHI Centre and selected partners
Technology tools to address key water-related issues applied in countries	2019-2021	Web-based e.g. project or tool websites such as <a href="http://fdmt.iwlearn.org/en">http://fdmt.iwlearn.org/en</a>	UNEP and DHI, as well as the Advisory Board and Danida when appropriate	UNEP-DHI Centre and selected partners

## Annex 5: Process Action Plan

Time line	Programme action	Documentation	Responsible
June 2018	Presentation to the UPR	Programme Document and annexes	MKL
June 2018	Ministerial approval	Summary from UPR	MKL
June 2018	Donor Agreement between Danida and UN Environment	Donor Agreement	MKL and UN Environment
June 2018	1 <sup>st</sup> of 4 annual transfers of funds from Danida and UN Environment	Donor Agreement and written request	MKL and UN Environment
June 2018	Project Cooperation Agreement (PCA) for approval by UNEP and DHI	Draft PCA	UNEP-DHI Centre
July 2018	Transfer of funds to DHI from UN Environment, for UNEP-DHI Centre to start implementation	PCA, Donor Agreement, written request	UN Environment and UNEP-DHI Centre
February 2019, 2020, 2021, 2022	Annual progress reporting	Progress reports	UN Environment and UNEP-DHI Centre
February 2019, 2020, 2021, 2022	Annual financial reporting	Financial reports	UN Environment
Nov/Dec 2018, 2019, 2020, 2021	Advisory Board Meetings	As appropriate	UNEP-DHI Centre and Advisory Board
July 2020	Mid-term Evaluation of programme	Term of reference, plus as appropriate	MKL and UN Environment
Nov/Dec 2020	Concept note for next phase of programme	Concept note	MKL and UNEP-DHI Centre
October 2022	Final reporting on outcomes and use of financing	Final report	UN Environment and UNEP-DHI Centre

## Annex 6: Summary of Appraisal Recommendations

<b>Title of (Country) Programme</b>	<b>UNEP-DHI Partnership Centre on Water and Environment 2018 – 2022.</b>
<b>File number/F2 reference</b>	<b>F2 2015-48903</b>
<b>Appraisal report date</b>	<b>24 May 2018</b>
<b>Council for Development Policy meeting date</b>	<b>12 June 2018</b>
<b>Summary of possible recommendations not followed: All recommendations have been followed (to be filled in by the responsible unit)</b>	
<p><b>Overall conclusion of the appraisal</b></p> <p>The Appraisal Team found that the project document is well prepared, and that the process has been inclusive of relevant stakeholders, has incorporated experiences from previous reviews and evaluations and looking ahead aligning the Centre with the latest priorities and strategies of both Danish development aid and the UN Environment.</p> <p>The Appraisal Team found that the proposed project is relevant for the latest Danish development strategy: The World 2030 Denmark’s strategy for development cooperation and humanitarian action, and for the UN Environment Freshwater Strategy 2017-2021. In particular it was found that the project will directly support the UN Environment in its mandate and its role as custodian for the SDG core indicator 6.5.1 on IWRM Implementation. This phase will continue the work on supporting countries’ monitoring the Sustainable Development Goal target 6.5.1, and using this monitoring as a the basis to identify gaps in water resources management and implement country specific activities aimed at filling this gap. The proposal includes enhancing the private sector engagement in water resources management.</p> <p>The Appraisal Team found the proposed objective and outcomes to be relevant and achievable and that the Centre will be able to mobilise additional funding required for country level support activities under outcome 3 and 4.</p> <p>The Appraisal Team found that the present arrangement, with the Centre placed at DHI on behalf of UN Environment, is an appropriate arrangement for implementing the project efficiently that allows UN Environment to tap into the strong Danish expertise and knowledge in this area .</p> <p>The main reservation from the appraisal relates to reporting from the UN Environment to MFA. It is mainly the financial reporting that needs to be strengthened compared to the last phase.</p> <p>The appraisal recommends the proposal for approval with only minor adjustments.</p>	
<b>Recommendations by the appraisal team</b>	<b>Follow up by the responsible unit</b>
<b>Country programme/Project Level:</b>	
<p><b>The preparation process and the quality of the project document</b></p> <p>The appraisal concludes that the preparation process is satisfactory although the project document is not fully consistent with the format proposed in the newest version of the Aid Management Guideline (January 2018) and lacks</p>	

some of the required annexes for presentation to the Council for Development Policy, including context analysis, discussion of partner choice and plan for communication of results. Finally, no draft agreement document is included in the package for appraisal.	
[1] The insights from the Mid Term Evaluation 2015 regarding monitoring of impact of the Centres interventions should be followed though and the impact monitoring results included in the regular progress reporting, including the reporting from UN Environment to MFA.	Done – integrated in programme document section 7 on financial management and reporting as well as in the donor agreement between Danida and UN Environments
[2] The project document shall be revised to comply with the Danida guideline.	Done
[3] The project document shall be updated with the context analysis in Annex 1, including the HRBA and gender analysis to more systematically identify barriers, challenges and opportunities for mainstreaming gender, HRBA and youth aspects in the project.	Done – included as annex 1
<b>Thematic Programme Level:</b>	
<p><b>Policy and Strategy Frameworks</b></p> <p>The proposed project is relevant to the objectives of the latest Danish development strategy: The World 2030 Denmark’s strategy for development cooperation and humanitarian action. The proposed project development objective is “Supporting inclusive green growth and stability through effective and innovative water resources management”. The project is fully aligned and supportive of the UN Environment Freshwater Strategy 2017-2021. The project document is weak on Gender and Human Rights Based Approach aspects.</p> <p>The appraisal team found a high level of satisfaction, with the choice of partners and the modalities, amongst the potential collaborating partners, including country level beneficiaries. The UN uses several similar partnerships to ensure flexible and affordable access to high quality expertise.</p>	
[4] The justification for the choice of UNEP-DHI should be more explicitly stated, including by using the new standard annex 2 to the project documents.	Annex 2 is included  Further information on gender and human rights based aspects have been added in Annex 1 section 3.
<p><b>Theory of change, objectives and results framework</b></p> <p>The Theory of Change presented in the draft project document is broad and presents a god overall perspective of how the centre with its limited staff and resources expects to contribute to addressing global water challenges and the achievement of the SDGs, in particular SDG&amp;. The broad nature of the ToC, however, also provides a rather simplified overview and does only provide limited guidance for the targeted country level support interventions under outcome 3 and 4. It may be relevant to develop more specific and detailed ToCs to serve specific intervention areas that can be developed as these are identified and the overall project develops.</p> <p>No specific recommendations is required.</p>	
<b>Engagement Level</b>	
<p><b>Project management, reporting and monitoring</b></p> <p>There is a need to describe the project management better in the project document and in particular to strengthen the technical and financial progress reporting from UN Environment to the Danish MFA.</p>	
[5] UN Environment should provide a short but comprehensive technical and financial report to Danish MFA annually together with approved expenditure statements. This report shall show progress against the result framework of the project document and shall to the extent possible also show the financial contributions and results of other PCAs and direct donor agreement	Description of project management has be strengthened, including agreement reached to strengthen technical and financial progress reporting.

with the Centre thus providing a comprehensive overview of the full work programme of the Centre.	
<p><b>Budget, financial management and flow of funds</b></p> <p>In order to fully implement the Centres work programme and achieving the results outlined in the results framework at least USD 5 million will be required from other sources. The experience from the current project shows that this may be a realistic target as the Centre has leveraged additional financing from CTCN (8 projects totalling around USD 1.6 million), GEF (USD 2-3 million), GCF readiness financing and bilateral donors: Germany, Switzerland, Sweden and others.</p>	
[6.] The technical financial reports should complement the standard UN format of budget lines with a format providing an indicative outcome-based budget reporting (division across the main work areas) that could also show additional financing of these work areas from other sources.	Included in Annex 3 and will be part of the technical financial reports.
<p><b>Risk Management Framework</b></p> <p>The project document identifies 6 risks, categorises them (2 contextual, 3 political and 1 institutional), and judges their impact and likelihood and out lines risk management strategies and safeguards. Following discussions with the Centre, stakeholders and the analysis presented in earlier sections, the appraisal team has identified a few further risks.</p>	
[7] The Centre should further develop the risk analysis, particularly in relation to private sector participation, additional funding and country commitment. At the same time the Centre should present a mechanism for monitoring and reporting on the risks in the final version of the project document.	Risk analysis has been further developed, including regarding private sector engagement, additional funding and country commitments. Monitoring of risks will be part of the reporting will be incorporated in the periodic reporting.
<p><b>Sustainability and continuation/exit scenarios</b></p> <p>The core activities of the Centre are to contribute to UN Environment’s mandates to support implementation of sustainable freshwater management practices globally, in particular to support implementation and reporting related to SDG target 6.</p> <p>The country or regional level activities under outcome 3 and 4 that will be shaped by specific demands or opportunities that arises opportunistically as part the Centres engagement with countries are different.</p> <p>As the Centre does not have a permanent presence at the country level and its input a relatively small and targeted, it is important the social, economic and institutional sustainability is well reflected in the design of these activities from the on-set.</p>	
[8] The Centre should establish a procedure for ensuring that social, economic and institutional sustainability considerations for the post-intervention phase are built into the design of country level support activities.	Recommendation included in the risk management matrix in relation to design of interventions.

I hereby confirm that the above-mentioned issues have been addressed properly as part of the appraisal and that the appraisal team has provided the recommendations stated above.

Signed in Copenhagen on the 30. May 2018 Jens Fugl

Appraisal Team leader/TQS representative

I hereby confirm that the responsible unit has undertaken the follow-up activities stated above. In cases where recommendations have not been accepted, reasons for this are given either in the table or in the notes enclosed.

Signed in Copenhagen on the 30 May 2018 Henriette Ellermann-Kingombe

Head of Unit