EVALUATION

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JOINT EFFORTS FOR A GREEN FUTURE: EVALUATION ON FINLAND'S DEVELOPMENT COOPERATION IN ENVIRONMENT AND SUSTAINABLE USE OF NATURAL RESOURCES, AND PRIVATE SECTOR OPPORTUNITIES

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Evaluation of Finland's Development Policy and Co-operation

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JOINT EFFORTS FOR A GREEN FUTURE: EVALUATION ON FINLAND'S DEVELOPMENT COOPERATION IN ENVIRONMENT AND SUSTAINABLE USE OF NATURAL RESOURCES, AND PRIVATE SECTOR OPPORTUNITIES

WATER AS A NATURAL RESOURCE SUB-SECTOR EVALUATION REPORT

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2026/1

This evaluation was commissioned by the Ministry for Foreign Affairs of Finland to Particip GmbH. This report is the product of the authors, and responsibility for the accuracy of the data included in this report rests with the authors. The findings, interpretations, and conclusions presented in this report do not necessarily reflect the views of the Ministry for Foreign Affairs of Finland.

This report incorporates the use of Artificial Intelligence (AI) technologies to enhance and support the evaluation process. AI tools were employed to assist document review through the identification of relevant sources and to enable broader contextual research, including targeted searches. In addition, AI-based language tools were used to support proofreading and to improve clarity, coherence, and readability. The AI tools or techniques utilised in this report adhere to EVA-11's requirements, ensuring ethical and responsible use, transparency, validation of results, and compliance with relevant internal regulations. For details on the specific AI methodologies and tools used and details regarding the validation of AI-generated results, refer to section/Annex 1 of this report.

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Acronyms and Abbreviations

AI	Artificial intelligence
BLUE-ZAN	Climate Resilience of Zanzibar with Integrated Marine Management and Sustainable Blue Economy
CH4	Methane
CO2	Carbon dioxide
COWASH	Community-Led Accelerated WASH (project, Ethiopia)
EQ	Evaluation Question
EU	European Union
EUR	Euro
EVA-11	Development Evaluation Unit
ICI	Institutional Cooperation Instrument
IUCN	International Union for Conservation of Nature
J6P	Joint Six Programme
LACC	Local Adaptation to Climate Change project, Nepal
Luke	Natural Resources Institute Finland
MFA	Ministry of (Denmark, Netherlands) or Ministry for (Finland, Sweden) Foreign Affairs
NRLAIS	National Rural Land Administration Information System in Ethiopia
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
OWNP	One WASH National Programme (Ethiopia)
PDR	(Lao) People's Democratic Republic
PEACEPLUS	EU-UK-Ireland-Northern Ireland funding body (for peace-building in the Island of Ireland)
PIF	Public Sector Investment Facility (Finland)
REILA	Responsible and Innovative Land Administration in Ethiopia
RVWRMP	Rural Village Water Resources Management Project (Nepal)
RWSSP-WN	Rural Water Supply and Sanitation Project in Western Nepal
SAP	Systems, Applications, and Products in Data Processing
SDG	Sustainable Development Goal
sq. km	Square kilometre
SUSWA	Sustainable WASH for All in Nepal
Syke	Finnish Environment Institute
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
USSR	Union of Soviet Socialist Republics (1922-1991)
VTT	Technical Research Centre of Finland
WASH	Water, sanitation and hygiene (sector)
WSPST	Water and Sanitation Programme for Small Towns in Vietnam Project
WWF	World Wide Fund for Nature
ZAN-SDI	National Spatial Data Infrastructure for Integrated Coastal & Marine Spatial Planning in Zanzibar

1 Summary

This document reports on an evaluation of work funded in 2010–24 by the Ministry for Foreign Affairs of Finland in the Water as a Natural Resource sub-sector of the Environment and Natural Resources policy priority area. It is part of a larger evaluation that also covers three other sub-sectors of the same policy priority area, these being: (i) Forests, Ecosystems and Biodiversity, (ii) Disaster Risk Reduction and Meteorology, and (iii) Clean Energy, Circular Economy and Critical Minerals. All four sub-sector studies aim to answer one summative question: *"What results, including any realised or emerging impact, has Finland generated in this sub-sector during the period under evaluation?"*, and one formative question: *"What concrete and context-specific opportunities, entry points and models are there for Finland for partnering with Finnish and local companies and economic actors within the sub-sector topic(s) in the next five years?".* All will support a later synthesis report.

An updated theory of change in line with Finnish Water as a Natural Resource policy was prepared, based on MFA's 2023 version and comprising logical steps from short- to medium- and long-range results. Other methods involved "moderate" desk studies, which used MFA evaluations and selected interviews, and "intensive" desk studies, which used all relevant documents and informants. Taken together, these examined a sample of 17 MFA-funded interventions chosen to cover all key aid instruments and respond to suggestions by the evaluation's Reference Group. Evidence was compiled along with notes from interviews with expert knowledge-holders at public research institutions both Finnish (6) and non-Finnish (2), the Ministry for Foreign Affairs of Finland (14), Finnish consulting firms (5), international organisations (6), Finnish non-governmental organisations (3), and private-sector actors both Finnish (3) and non-Finnish (2). All evidence was used to support the reporting of findings, conclusions and potential action points (see below). No major difficulties were encountered, and the only limitations are those inherent to sampling from a much larger portfolio of unique cases, such as the representativeness of the sample.

KEY RESULTS	SUSTAINABLE DEVELOPMENT GOAL
Answers to Evaluation Questions 1.1 (a, b, c) and 1.2 on results and impacts, induced changes and benefits/beneficiaries There is good evidence for five pathways within the theory of change being followed as a result of Finnish support, all with strong overall effectiveness. **Enabling market-led waste plastic recovery and circular economy solutions.** Finnish support contributed to preventing nearly 630,000 tonnes of waste plastic from entering tropical aquatic ecosystems in 2020–24 (RiverRecycle, Circulate Capital). The partners also built their capacity to prevent up to 13 million tonnes of plastic pollution by the early 2030s (SDG 14). This benefited local investment and public and ecosystem health, and demonstrated: (i) the creation of self-financing arrangements to reduce plastic pollution at scale; (ii) excellence in selecting business plans to address a key environmental problem; and (iii) the effective use of business development grants and catalytic blended finance (SDG 17). **Promoting participatory spatial planning and tenure clarification.** Finnish support enabled participatory planning of 342 sq. km of land and sea in Zanzibar (ZAN-SDI 2016–19, BLUE-ZAN 2023–27), and digital land registration in 106,538 sq. km of Ethiopia (REILA 2011–2028). This made it easier for local and national actors to plan, and to avoid potential conflict over natural resources (SDG 16), thus promoting sustainable land and water management and ecosystem protection (SDG 14, SDG 15). It was potentially transformative, since tenure security enables resource owners: (i) to invest long-term in their crops, waterways and ecosystems, with the option of using nature-based solutions to solve environmental problems; and (ii) to negotiate agreements with others, such as on payments for ecosystem services. Where ecosystems are owned or managed collectively, tenure security also allows for community-based resource management. owned or managed collectively, tenure security also allows for community-based resource management. **Building capacity to deliver water, sanitation and hygiene services.** Finnish support contributed to enhancing these services in some of the poorest regions of Ethiopia and Nepal (SDG 6, SDG 10). In Ethiopia, improved water supplies reached over 426,000 people while 150,000 school students as well as patients and staff at 138 rural health institutions gained new water and sanitation facilities (SDG 6) (COWASH 2011–25). In Nepal, well over a million people gained improved water and sanitation facilities, while more than 6.8 million lived in communities that achieved Open Defecation Free status (SDG 3), 14,000 gained access to arsenic-safe wells (SDG 3), livelihood gains reached 1.25 million (SDG 10), and health benefits included reduced waterborne disease, child mortality and improved nutrition from home gardens (SDG 3) (RWSSP-WN 2008–19, RVWRMP 2006–22, SUSWA 2021–27). Potentially transformative results included: (i) the embedding of Finnish-supported measures within Ethiopia's One WASH National Programme and Nepal's national water, sanitation and hygiene Management Information System; (ii) enduring institutional change at local government level, as policies, procedures and capacity for service delivery were increased at 104 woredas in Ethiopia and 157 municipalities in Nepal (SDG 6, SDG 16); and (iii) that local people and their institutions became better able to analyse climate change risks, and take action to protect themselves with locally-appropriate solutions (SDG 13, SDG 16, SDG 17).	

KEY RESULTS	SUSTAINABLE DEVELOPMENT GOAL
Influencing policies, laws, practices and awareness. Finnish support: (i) allowed the Mekong River Commission (2010–15) to set up systems for managing knowledge, disputes and environmental impacts (SDG 14, SDG 15), and to recruit and train 111 junior professionals from its member countries; (ii) enabled the Nile Basin Initiative (1997–2010, and related projects to 2017) to build an effective regional institution, while Finland also financed many of its initial operations (SDG 17); and (iii) strengthened systems for policy development and knowledge sharing at the UN Desertification Convention (UNCCD 2001–17) and UNECE Water Convention (since 2012), including by mobilising incremental funding (e.g. USD 23.8 million for drylands) and supporting their institutional processes, strategic assessments and action plans (SDG 13, SDG 14, SDG 15, SDG 16, SDG 17). Potentially transformative results included: (i) greatly enhanced capacity at two regional institutions and two multilateral frameworks that are key parts of the global sustainable development architecture; and (ii) the growth of systemic Finnish influence in promoting water as a foundation for both environmental sustainability and peace. **Encouraging, enabling, networking and incentivising Finnish private-sector actors.** Finnish private-sector capacity expanded strongly after the Finnish Water Way in 2018, facilitated by clusters of expertise including the Finnish Water Forum which became a key platform for knowledge-sharing and consortium building. With MFA support of less than EUR 0.5 million annually, Forum members identified and acted upon EUR 777 million in viable commercial leads in 2020–24, with an active pipeline in 2025 (SDG 17). Potentially transformative results included: (i) that Finnish firms became better at identifying and acting on opportunities, often collaborating to secure projects in unfamiliar sub-sectors and locations (shown by their rapid response to the EU Water Expertise Growth and Export Programme in 2023–24); and (ii) that Finnish firms and consortia became more competitive in international cooperation and circular economy markets (SDG 12), aided by Finland's strong reputation for water management expertise and by rising political priority for climate change adaptation at local, national and global levels. **Cross-sectoral effects.** The positive environmental results of Finnish interventions that protected ecosystems were likely amplified by cross-sectoral spillover effects. For example: (i) water interventions strengthened disaster risk reduction through water safety planning in Ethiopia and Nepal (COWASH, SUSWA) (SDG 13); and (ii) forestry interventions enhanced water security by protecting natural forests and improving forest cover in Lao PDR, Tanzania and Vietnam (see Forests, Ecosystems and Biodiversity report) (SDG 13). **'Do no harm'.** Negative or unintended effects were rare, and unexpected positive impacts included increased confidence and political participation among women in Nepal (RWSSP-WN, RVWRMP) (SDG 5). **Beneficiaries of Finnish support.** Rural households gained improved water and livelihood security (SDG 3, SDG 5, SDG 6), local and national governments and river-basin organisations gained capacity (SDG 16, SDG 17), and Finnish companies gained competitiveness and commercial opportunities (SDG 12). **Contextual factors.** Needs and opportunities in various contexts were shaped by factors such as Nepal's federalisation process (from 2015), Ethiopia's national water, sanitation and hygiene programme (from 2013), and rapid hydropower expansion in the Mekong Basin (from 2005). The ability of Finland's cooperation professionals to adapt to these, and to combine technical expertise with diplomacy, contributed strongly to positive outcomes (SDG 13, SDG 15).	

KEY RESULTS	SUSTAINABLE DEVELOPMENT GOAL
Answers to Evaluation Question 1.3 on most effective approaches The most effective approaches were those that embedded Finnish support within larger institutional, financial, and ecological systems. Seven such approaches are identified, based on their consistent effectiveness, impact, sustainability and likely cost-effectiveness in line with the theory of change. They variously cover the use of international partnerships for the two goals of leveraged financing and policy influence, national partnerships for policy influence, focused business development support, participatory spatial planning for avoiding conflict over renewable natural resources, incentivising cooperation among sub-sectoral actors, and targeting multiple policy goals through ecological design (SDG 14, SDG 15, SDG 17).	
Answers to Evaluation Question 1.4 on Finnish added value Finland brought four distinctive elements with practical results to the water resources sub-sector: (i) concern for universal inclusion and human rights that shaped water, sanitation and hygiene (SDG 5, SDG 6), spatial planning and policy development interventions; (ii) willingness to stay engaged in fragile and dynamic contexts to enable capacity and resilience building with institutional partners (SDG 16, SDG 17); (iii) strategic networking of actors to build collective knowledge and skills in detecting opportunities and forming consortia through which to exploit them (SDG 17); and (iv) integrating circular economy innovation (SDG 12), using dispersed but networked expertise and rights/gender equity, disabled and social inclusion-informed ecological approaches to link sustainability (SDG 13, SDG 14, SDG 15) with inclusion (SDG 5) and peacebuilding (SDG 16). These elements were deployed in various combinations, resulting in the strengths seen in the water resources portfolio. They complement other strengths (such as the normative effect of policy-development partnerships) that are important but not unique to Finnish development cooperation.	
Answer to Evaluation Question 2.1 on market conditions affecting Finnish private sector engagement There is a twofold message from the evidence assessed. The first part is that very few opportunities for Finnish private sector engagement were directly associated with traditional ODA interventions in the sub-sector, mainly because their rural locations in least-developed and lower-middle income countries deterred Finnish companies that were used to selling into more technology-responsive markets. The second part is forward-looking and more positive, since there was a decisive shift in enabling conditions from about 2018, including: (i) a more holistic approach to promoting all aspects of the water sector by government; (ii) strong signals and incentives by government for private companies to collaborate with each other and with non-commercial knowledge holders in exploring export possibilities; (iii) energetic promotion by government of trade and investment with former partner countries (and others) that had achieved middle-income country status or that had dynamic sectors matching Finnish technological offerings (e.g. in meteorology), and (iv) the development of increasingly well-organised knowledge and service networks in the water sector, in Finland, in other EU member states, and under EU auspices, that had become adept at competitive bidding for projects globally (SDG 9, SDG 11, SDG 12). Drivers of change from 2018-19 included a burst in public climate-change awareness across Europe, the European Green Deal, and the first round of Nationally Determined Contributions under the Paris Agreement. All pushed governments to pay more attention to climate change adaptation and water resource management, putting Finland in a strong position both diplomatically and from the strong capacity of Finnish companies to respond effectively. Competition is strong, however, as Finland is not alone in developing these capabilities.	

KEY RESULTS	SUSTAINABLE DEVELOPMENT GOAL
Finland's edge lies in niche technical expertise, resource-efficient and reliable solutions, and in an aptitude for partnerships and consortium-building. With these advantages Finnish interests may achieve considerable success in the expanding water resource markets of 2025–30. Meanwhile a number of specific prospects have been identified, including openings in EU-funded initiatives, circular economy projects in Vietnam, the Philippines and Indonesia (SDG 12), groundwater and forestry in Vietnam (SDG 6, SDG 13), and concessional financing under Public Sector Investment Facility agreements in Vietnam and Nepal (SDG 17).	
Answer to Evaluation Question 2.2 (a, b) on potential gains for Finnish businesses and development cooperation In the Finnish context, positive feedback between policies, networked institutional capacity, and the ability of companies to exploit opportunities is transforming the water resource sub-sector in ways that equally benefit business and development cooperation. Finnish companies experience both short- and long-term gains. In the short-term, platforms such as the Finnish Water Forum, targeted business support, and alignment with bilateral and multilateral programmes have yielded successes like Finnpartnership's grants to RiverRecycle and the blended finance Circulate Capital case. In the longer term, Finland's cooperative culture of consortium building and its post-2018 policies are positioning firms to compete in expanding global markets for water resource management, circular economic system investing and climate change adaptation (SDG 17). These partnerships add value for development cooperation by linking Finnish expertise to systemic challenges such as water pollution, unmet needs for water, sanitation and hygiene services (SDG 6), and inclusive water resource governance, thereby advancing ecological sustainability (SDG 13), inclusion (SDG 5), and other cooperation goals.	
Answer to Evaluation Question 2.3 on promising models for Finnish private sector engagement Finland has taken forward a comprehensive overall strategy in the water sector that included measures to encourage, enable and incentivise participation by private companies. This is achieving the desired results and may ultimately be the best way to promote private sector engagement. But within it there are three approaches that stand out in terms of delivering cost-effective impact: (i) leveraging international financial institutions to mobilise large-scale investment (SDG 17); (ii) building long-term partnerships with international organisations and national governments to shape policy (SDG 16); and (iii) providing targeted business development grants to scale up viable innovations (SDG 12). These approaches are all promising in view of their replicability, but certain conditions apply to their viability. Thus they must all be anchored in policy and institutional frameworks that make financing available, while well-established partnerships are needed for influence, and credible business models that target real needs are needed for commercial success. Adequate decision-making capacity is also needed to support wise choices on which proposals to support. Recent cuts to official development assistance budgets in several countries including Finland may compromise these conditions, but business development grants seem likely to remain attractive since they have a favourable ratio of cost/risk to potential impact.	

Conclusions

1. There were strong achievements in protecting environmental systems and improving social ones, with success stories in waste plastic recovery, water, sanitation and hygiene service delivery, and cooperative governance of spatial planning and resource tenure systems.
2. Support was most effective when deployed either in whole water systems within ecological and/or administrative boundaries, or by being influential within larger systems of national reforms, multilateral frameworks and market mechanisms.
3. The sustainability of results was uneven: while institutional reforms proved durable and cost-effective, ecological resilience measures remained fragmented and under-resourced, leaving achievements vulnerable to climate pressures.
4. After 2018 forum-based networking and whole-of-government coordination enabled Finnish private companies to identify, form consortia, and pursue international opportunities aligned with cooperation priorities.
5. Finnish added value lay in combining technical expertise, a cooperative governance culture, circular-economy innovation, and sustained engagement in fragile contexts to enhance inclusiveness, peacebuilding, and influence across sub-sectoral systems.
6. Finnish interventions generally ensured that benefits were realised as intended; unexpected negative effects were rare, while cross-sectoral spillovers – such as between forestry, water and disaster risk reduction – amplified overall influence.
7. Long-term bilateral partnerships yielded co-benefits of familiarity, trust, mutual learning and commercial opportunities, all of which can be lost if such engagements are reduced without putting in place alternative ways to sustain them.
8. Seven consistently effective and sustainable approaches were identified: leveraged finance, policy influence, national partnerships, targeted business support, participatory planning, institutional cooperation, and cross-sectoral ecological design.

Potential action points

1. Identify measures to mitigate the loss of diplomatic and commercial co-benefits from reduced bilateral engagement, e.g. by twinning for accession to the UNECE Water Convention or through non-governmental organisation and university partnerships.
2. Strengthen water diplomacy capacity to identify and facilitate nature-based solutions and payment-for-ecosystem-service opportunities at national and subnational levels, drawing on existing Finnish and multilateral expertise.
3. Leverage Finland's strong forum-based cooperation culture and particular technical strengths to participate more actively in dialogues on long-range ecological risks, including Arctic system tipping points.
4. Ensure that any significant opportunities identified for private sector engagement in the sub-sector are systematically tracked and disseminated across Team Finland actors.
5. Explore potential reform of MFA instruments to enhance flexibility, blended finance options, and inclusiveness of diverse actors, building on lessons from all instruments and actors in the sub-sectoral portfolio.

2 Introduction

2.1 Purpose, objectives and scope

This document reports the findings and conclusions of an evaluation of work funded by the Ministry for Foreign Affairs of Finland (MFA) in the Water as a Natural Resource sub-sector of the Environment and Natural Resources policy priority area. It is part of a larger Environment and Natural Resources evaluation that also encompasses three other sub-sectors: Forests, Ecosystems and Biodiversity, Disaster Risk Reduction and Meteorology, and Clean Energy, Circular Economy and Critical Minerals. This and the other sub-sector evaluations are to be used in support of a synthesis report which will present findings, conclusions and recommendations from the Environment and Natural Resources evaluation as a whole.

The purpose of this evaluation is to provide the MFA and its stakeholders with information on the achievements, merits and worth of implementation of this policy priority area. The evaluation is to provide evidence-based recommendations on future directions for increased effectiveness for Finland to consider when it engages with this theme with a longer-term time perspective as well as inform MFA stakeholders about the achievements. The evaluation also aims to deepen understanding of Finland's contributions to the 2030 Agenda, particularly in relation to Sustainable Development Goal (SDG) 13 (climate action), SDG 14 (life under water), and SDG 17 (partnerships for the goals).

This sub-sector evaluation has both summative and formative dimensions. The specific objectives are:

1. To harvest and evaluate results (obtained and sustained), successes and challenges in achieving the objectives of the policy priority area and its sub-sectors (summative);
2. To present a synthesis of results and impacts, including early/emerging impacts (summative);
3. To identify and analyse opportunities, means and measures for engaging Finnish private sector actors into this work in the future (formative);
4. To provide realistic evidence-based policy and operational recommendations for the future, with due attention to the limitations in financial and human resources available (formative).

This report focuses on results and impacts of MFA-supported interventions from 2010 to 2024 across the Water as a Natural Resource sub-sector, which overlaps extensively with the water, sanitation and hygiene (WASH) theme in development cooperation (see Section 2.2). It draws from a sample of MFA-funded projects and initiatives, and places particular emphasis on identifying lessons learned and good practices to promote private sector engagement. Otherwise the scope is as defined in the terms of reference, adapted and focused to the priority of understanding the achievements, impact and sustainability of MFA cooperation in the sub-sector.

In terms of the instruments used to support interventions in the sub-sector, the following were found to be most relevant and selected cases were examined: (i) bilateral support at the country level (mainly in Ethiopia and Nepal, but also in Kenya and Vietnam); (ii) civil society organisation support (directed to the Finnish Water Forum); (iii) multilateral support (with the UNECE Water Convention and a multi-bi investment through the Finland-International Finance Corporation Blended Finance for Climate Programme); (iv) regional cooperation (including with the UN Convention to Combat Desertification (UNCCD) in Western Asia and North Africa, the Mekong River Commission in the Mekong Basin of South-east Asia, and the Nile Basin Initiative); and (v) Institutional Cooperation Instrument (ICI) projects (for applied research and inclusive spatial planning in Zanzibar). Details of the specific cases are given in Table 1 below.

The evaluation questions (EQ) addressed in the sub-sector evaluation are:

EQ1: What results, including any realised or emerging impact, has Finland generated in this sub-sector during the period under evaluation? (summative)

1.1 What have been the most notable results and impacts? What relative change(s) resulted in the sub-sector through Finnish support during the period? Were there any unexpected and/or negative effects to the environment (do no harm)?

1.2 Who benefited, in what contexts, how and why (facilitating factors)?

1.3 What approaches have been particularly effective?

1.4 What has been Finland's (context-specific) added value/comparative advantage in generating the results?

EQ2: What concrete and context-specific opportunities, entry points and models are there for Finland for partnering with Finnish and local companies and economic actors within the sub-sector topic(s) in the next five years? (formative)

2.1 What type of markets, level of competition and local demand exists there for Finnish private sector funding, investments and/or solutions (products, services) in the sub-sector topic(s) in the locations assessed?

2.2 What are the foreseen gains to the Finnish companies in the short and long-term? What are foreseen benefits/results from such partnerships from the point of view of advancing of Finland's development policy objectives?

2.3 What kind of concrete models/partnerships (e.g. clusters/consortia/coalitions/multi-actor partnerships) and instruments show best promise and viability, including possible funding sources for sustainable private sector business models, for accelerating private sector engagement for Finnish private sector actors?

Table 1 Moderate and intensive studies of MFA-supported projects in the Water as a Natural Resource sub-sector

INTERVENTION (ACRONYM, YEARS)	INSTRUMENT (CATEGORIES FROM THE TERMS OF REFERENCE)	IMPLEMENTING AGENCY AND MFA FINANCING	GEOGRAPHY	CONTEXT[1]	DEPTH OF STUDY
Community-Led Accelerated Water Sanitation and Hygiene in Ethiopia Phases III & IV (COWASH, 2016–2024)	Bilateral support	Implementer: Ministry of Water and Energy (federal lead) and Water Resources Development Bureaus of Amhara, Benishangul-Gumuz, Oromia, Sidama, Southern Nations, Nationalities and Peoples' Region, South West Ethiopia Peoples' Region and Tigray National Regional States (regional leads). Finnish contribution: EUR 29.96 million (38% of the total in Phases III & IV; balance from the Government of Ethiopia and communities).	Ethiopia	Traditional	Moderate
Rural Water Supply and Sanitation Project in Western Nepal (RWSSP, 2008–2019)	Bilateral support	Implementer: District Development Committees of participating districts, Village Development Committees and communities through the Water and Sanitation Users' Committees (pre-federalisation). Rural municipalities and municipalities (after federalisation). Finnish contribution: EUR 29.90 million (63% of the total in Phases I & II; balance from the Government of Nepal and local governments and communities).	Nepal	Traditional	Moderate
Rural Village Water Resources Management Project (RVWRMP, 2006–2022)	Bilateral support	Implementer: District Development Committees of participating districts, Village Development Committees and communities (pre-federalisation). Rural municipalities and municipalities (after federalisation). Finnish contribution: EUR 43.50 million (39% of the total in Phases I, II & III; balance from the Government of Nepal, local governments and communities, and EU in Phase III only).	Nepal	Traditional	Moderate
Support to Finnish Water Forum (2014–2024)	Civil society organisation support	Implementer: Finnish Water Forum. Finnish contribution: EUR 0.396 million (48% of the 2023–2025 programme; balance from membership fees, other ministries, Centres for Economic Development, Transport and the Environment and projects).	Unspecified	-	Intensive

1 Context: Transitions from one context to another are not always clear and consistent. Thus the MFA definition of 'transitional' focuses on shifting from a development cooperation-based relationship to a private sector-based relationship, while the World Bank uses per-person Gross Domestic Product and the United Nations takes a wider basket of economic and human development indicators into account. Moreover, the dynamism of national economic systems does not always make for a simple progression, an example being Zambia which the World Bank demoted from the lower-middle to lower income category in 2022. Comparable ambiguity over economic status affects the status of Lao PDR. And the 'conflictual' context is also subject to radical change since, as seen since 2022 in Ukraine and elsewhere, it depends on military and peace-making initiatives by various stakeholders.

INTERVENTION (ACRONYM, YEARS)	INSTRUMENT (CATEGORIES FROM THE TERMS OF REFERENCE)	IMPLEMENTING AGENCY AND MFA FINANCING	GEOGRAPHY	CONTEXT[1]	DEPTH OF STUDY
Water and Sanitation Programme for Small Towns in Vietnam (WSPST, 2004–2017)	Bilateral support	Implementer: Ministry of Planning and Investment (Phase I), Ministry of Construction, Vietnam Development Bank, Provincial/Town People's Committees. Finnish contribution: EUR 32.71 million (84% of the total; balance from the Government of Vietnam).	Vietnam	Transitional	Moderate
Support to the Convention on the Protection and Use of Transboundary Water Convention (UNECE Water Convention, 1992 onwards)	Multilateral support	Implementer: Water Convention Secretariat, United Nations Economic Commission for Europe, Geneva. Finnish contribution: EUR 0.2 million per year (core funding).	Unspecified	-	Moderate
Finland's Support to the Mekong River Commission (MRC, 2005–2015)	Regional cooperation	Implementer: Mekong River Commission Secretariat, Vientiane. Finnish contribution: EUR 12.23 million (four programmes).	Mekong, regional	-	Moderate
Catalytic Support to the Convention to Combat Desertification (UN Convention to Combat Desertification) in W. Asia & N. Africa, Phase V (UNCCD, 2013–2017)	Regional cooperation	Implementer: UNDP Global Policy Centre on Resilient Ecosystems and Desertification, Nairobi. Finnish contribution: EUR 3.0 million.	West Asia & North Africa, regional	Includes conflictual	Moderate
Support to the Nile Basin Initiative (NBI, 1997–2021)	Regional cooperation	Implementer: Eastern Nile Technical Regional Office of the Eastern Nile Subsidiary Action Program, Addis Ababa. Finnish contribution: EUR 13.9 million (two programmes).	East Nile, regional	Includes conflictual	Moderate
Joint Six Programme (J6P, 2014–2021 and 6-month close-out phase)	Bilateral support	Implementer: Water Sector Trust Fund, Nairobi. Finnish contribution: EUR 16.875 million (42% of the total; balance from the Government of Kenya and Swedish International Development Agency).	Kenya	Transitional	Moderate
Sustainable WASH for all (SUSWA, 2021–2027)	Bilateral support	Implementer: Ministry of Water Supply and Municipal WASH Management Committees. Finnish contribution: EUR 9.0 million (29% of the total; balance from the Government of Nepal, local governments and communities, and EU).	Nepal	Traditional	Intensive

INTERVENTION (ACRONYM, YEARS)	INSTRUMENT (CATEGORIES FROM THE TERMS OF REFERENCE)	IMPLEMENTING AGENCY AND MFA FINANCING	GEOGRAPHY	CONTEXT[1]	DEPTH OF STUDY
River Cleaning as a Free Service (RiverRecycle, 2019 to date)	Private sector instrument	Implementer: RiverRecycle Oy. Finnish contribution: EUR 1.0 million (commercially sensitive; approximate total for two start-up grants).	Indonesia, Philippines	-	Moderate
Incr. Climate Resilience of Zanzibar with Integrated Marine Management and Sustainable Blue Economy (BLUE-ZAN, 2023–2027)	ICI project	Implementer: Syke. Finnish contribution: EUR 1.0 million.	Tanzania	Traditional	Moderate
National Spatial Data Infrastructure for Integrated Coastal & Marine Spatial Planning in Zanzibar (ZAN-SDI, 2016–2019)	ICI project	Implementer: Syke. Finnish contribution: EUR 0.7 million.	Tanzania	Traditional	Limited
Responsible and Innovative Land Administration (REILA, 2011–2024)	Bilateral support	Implementer: Rural Land Administration and Use Directorate of the Ministry of Agriculture. Finnish contribution: EUR 29.25 million (87% of the total in Phases I, II & III; balance from the Government of Ethiopia).	Ethiopia	Traditional	Limited
Local Adaptation to Climate Change (LACC, 2024–2029)	Bilateral support	Implementer: Ministry of Federal Affairs and General Administration, focal ministries of Karnali and Sudurpashchim Provincial Governments with Municipal User Groups or User Committees. Finnish contribution: EUR 13.0 million (26% of the total; balance from the Government of Nepal, local governments and communities, and EU).	Nepal	Traditional	Limited
Investment in Circulate Capital by the Finland-International Finance Corporation Blended Finance for Climate Programme (Circulate Capital, 2018 to date)	Multilateral support	Implementer: Circulate Capital. Finnish contribution: EUR 5.0 million (50% of investment; balance from the International Finance Corporation).	Unspecified	-	Limited

2.2 Approach and methods

A theory-based, macro-level, realist evaluation

The methodology is described in detail in Annex 1. It is focused on: (i) exploring beyond the project and programme level to shed light on aggregate and catalytic effects and synergies between actions, actors, instruments and policy-influencing activities within and across the sub-sector; and (ii) establishing how these encourage and enable wider changes at geographic, sectoral and/or institutional scales, including the role of private sector engagement and implications for the portfolio and policy level. It is therefore a 'theory-based', 'macro-level' and 'realist' evaluation:

- theory-based, because it is built upon a theory of change for the sub-sector that indicates the logical connections between inputs and instruments, short-range, medium-range and long-range results, and impacts, and hence with an emphasis on the plausibility of assumptions and causal links between steps in the design logic;
- macro-level, because it is focused on development cooperation across multiple interventions, locations, and the 15 years 2010–2024; and
- realist, because the whole study is embedded within a theory of change that is grounded in the large-scale, long-term development context that applies to those same multiple interventions, locations, and years.

Macro-level effectiveness, impact and sustainability

This focus on the macro level differentiates the approach from that of micro-level or intervention-specific evaluation. It rules out applying a detailed understanding of local context to help understand patterns and themes, since local contexts cannot be aggregated but only generalised or used in examples. For the same reasons, the key Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee's evaluation criteria of effectiveness, impact and sustainability have different meanings compared with their uses in intervention-specific evaluation.[2] In the present macro-level context they are defined as follows:

- effectiveness refers to the specific changes that occurred in a system during and as a result of particular kinds of MFA-supported interventions;
- impact refers to the consequences of those specific changes for the system with which particular kinds of MFA-supported interventions were engaged; and
- sustainability refers to the development of new outlooks, abilities, laws, budgets or administrative arrangements that are likely to promote the durability of those specific system changes after MFA's eventual departure.

2 At the micro level, effectiveness refers to the delivery of results by an intervention, impact refers to the consequences of the results during the project, and sustainability refers to durable change induced by the project and likely to survive it.

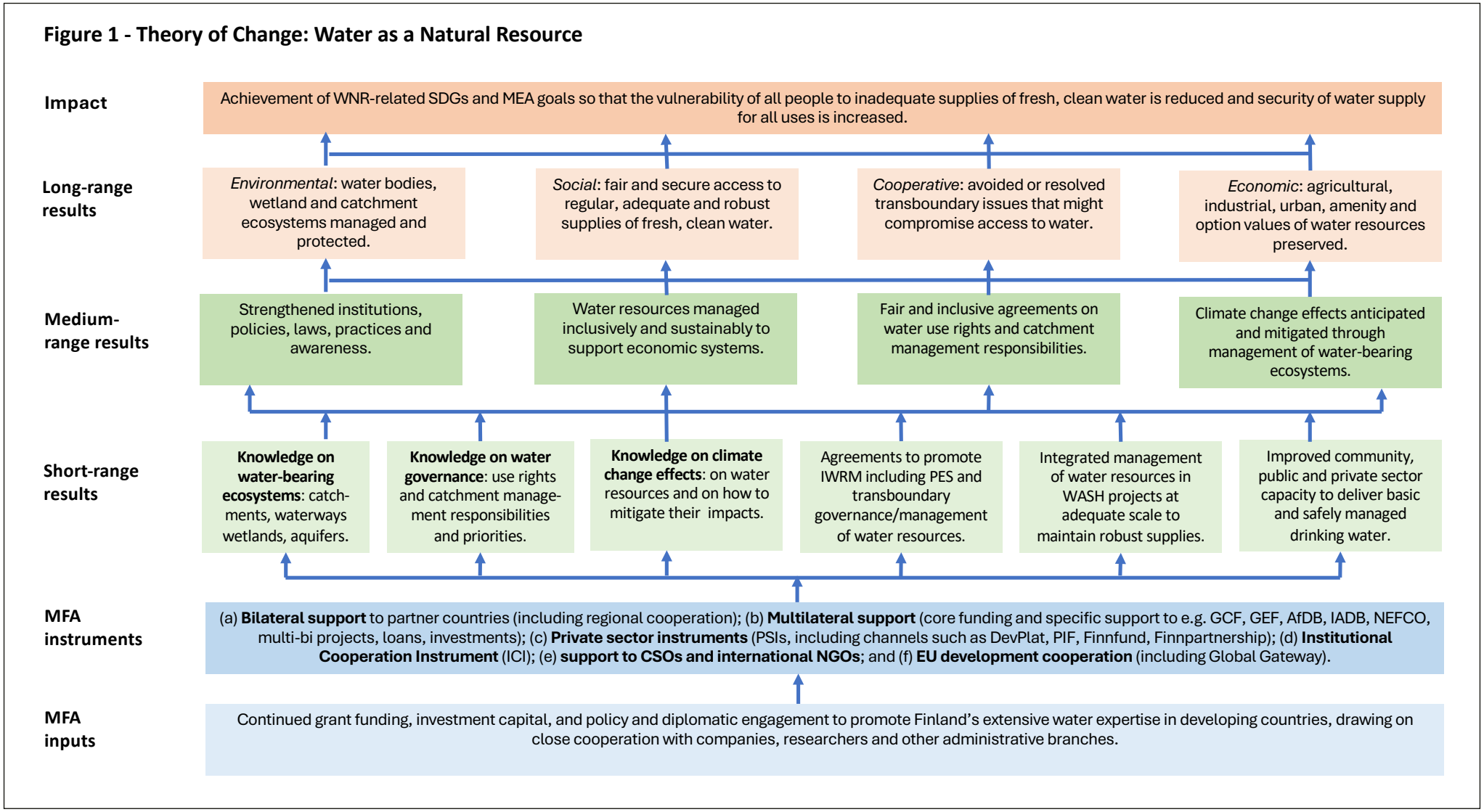
The sub-sectoral theory of change

The above makes clear that the sub-sectoral theory of change is of central importance to this evaluation, since it allows performance to be judged in terms of changes that are in line with it and that contribute to the flow of results from short, medium and long-range to overall effects on achieving the SDGs and related objectives. An early step in the evaluation was therefore to develop an updated sub-sectoral theory of change (Figure 1). This is based on MFA's existing theory of change and aggregate indicators for the Environment and Natural Resources policy area (2023a), and particularly its Outcome 5 Water: "All people have improved and equitable access to basic and sustainable drinking water, adequate sanitation services, and improved hygiene practices". This was modified in light of relevant ecological principles and global good practice (such as those developed to meet relevant SDG targets in this sub-sector, including SDGs 6.1–2, 6.5–6, 6.b; 12.2, 13.1, 13.3, 13.b; 14.1–2; 15.1–5, 15.9), and supported by assumptions listed in Annex 1.

Successive Finnish development policies have been clear on the need for water resources management to be integrated within countries and peaceful between them, for universal access to effective WASH services, and for the wise use and protection of water catchment and water-bearing or aquatic ecosystems (see Section 3.2). This clarity of purpose has not been translated within MFA documents into an equally-clear theory of change for interventions in the water sector, or in the WASH or Water as a Natural Resource sub-sectors separately. The nearest available is in MFA (2023a, pages 14–15), which traces a wandering line from policy influences, including multilateral environmental agreements, SDG 6 commitments, and bilateral transboundary water agreements, to gender equity, disabled and social inclusion-compliant WASH services, household and community hygiene, climate-resilient WASH services and better drinking water supply. It then arrives at Outcome 5 as a contribution to climate change adaptation, climate change mitigation and sustainable use of natural resources. It also notes that the theory of change for forests and biodiversity promotes integrated water resources management, transboundary waters management and sustainable management of water catchments or 'watersheds', and that these are also inputs to the desired water sector outcome.

The updated theory of change used here (see Figure 1) includes the delivery of safe drinking water as a key short-term result, but gender equity, disabled and social inclusion, sanitation, health and hygiene dimensions are excluded, being irrelevant to Water as a Natural Resource and implicit within WASH. The strategic impact sought by interventions in this theory of change is to achieve Water as a Natural Resource-related goals so that the vulnerability of all people to inadequate supplies of fresh, clean water is reduced, and the security of water supply for all uses is increased. Thus Figure 1 summarises the long-, medium- and short-range results to be anticipated from any intervention seeking to achieve this kind of strategic impact.

Figure 1 Theory of change for the water sector and Water as a Natural Resource sub-sector



Source: Evaluation team, based on the theory of change and aggregate indicators for water in the Environment and Natural Resources policy area in MFA (2023a)

A mixed-methods evaluation

A mixed-methods design was adopted, tailored to each evaluation question (EQ). The core methods used in every sub-sector evaluation, and adapted for use here, included:

- **Portfolio review**. This involved mapping and screening MFA-funded interventions in the Water as a Natural Resource sub-sector (2015–2022), leading to the pre-selection of a wide sample of projects to be considered for assessment.
- **Desk studies**. Moderate and intensive reviews were undertaken of project and programme documentation, including final and ex-post evaluations. Evidence was systematically captured into searchable proformas (project results frameworks presented in Table 9 and Table 10) where it could be easily retrieved at any stage and by the entire evaluation team. A total of 17 interventions were reviewed in the sub-sector, of which four were the subjects of limited study, 11 of moderate study, and two were examined in greater depth through intensive studies (Table 1).
- **Interviews and survey**. These were conducted with 15 policy-level, 20 intervention-level, and six private-sector knowledge-holders[3] (Annex 5) to complement desk review findings, clarify gaps, and explore strategic and operational aspects, including private sector engagement.
- **Market analysis**. Presented in Annex 3, this focuses on Nepal in line with the approach agreed during the inception phase of conducting one market analysis per sub-sector focused on a topic selected for intensive study. Here the focal topic was the ongoing (2021–27) Sustainable WASH for All (SUSWA) intervention, which provided an entry point for examining market conditions in Nepal. Additional evidence concerning the enabling environment for private sector engagement is presented where relevant in this report, drawing on interviews, desk studies, and additional data sources to assess private sector engagement trends, barriers, and opportunities within the sub-sector.
- **Like-minded peer country review**. Presented in Annex 2, this examined strategies, instruments and delivery models used by various countries engaged in activities in the same sub-sector. The analysis aimed to identify lessons and contrasts with Finland's approach, including areas of innovation and convergence.
- **Natural language processing**. This was used to efficiently identify the most relevant sources of information for the sub-sector from a large volume of evaluation reports and documentation, especially during the inception phase.

Together, these methods enabled the evaluation team to triangulate evidence across a wide range of sources, ensuring that conclusions are robust and grounded in multiple lines of inquiry.

Consistency and comparability

All four sub-sector reports addressed the same EQs and will contribute to the preparation of the synthesis report. To ensure comparability and enable aggregation across sub-sectors, all

3 These comprised individuals working at public research institutions both Finnish (6) and non-Finnish (2), MFA headquarters and embassies (14), Finnish consulting firms (5) and other private-sector actors both Finnish (3) and non-Finnish (2), international organisations (6), and Finnish non-governmental organisations (3).

performance judgements (i.e. on effectiveness, impact and sustainability) were required to be evidence-based and expressed in a standardised manner by using the following three-point scale as qualifiers where appropriate:

- **Strong performance** – Finnish support was assessed as being successful in achieving most (if not all) of its expected results, made a significant contribution to broader effects or impacts (i.e. through Finnish added value) and benefitted a substantial part of the intended target populations;
- **Moderate performance** – Finnish support was assessed at being successful or at least partially successful in achieving several (but not all) of its expected results, contributed to broader effects or impacts (but only to a limited degree while the contribution of others is likely to have been more significant) and benefitted the intended target populations;
- **Weak performance** – Finnish support only achieved a small proportion of its expected results, likely did not contribute to broader effects or impacts (or only in a very limited and indirect manner) and did not manage to create any wider benefits for the intended target populations.

The adoption of this limited range reflected the nature of the evidence available across the sub-sector portfolio, which did not support finer distinctions. The same approach was applied across all the sub-sector evaluations to ensure coherence in synthesis. Throughout the reports, these assessments are put into context by a "realist perspective" offering insights on the circumstances and conditions in which Finland carried out its activities. In addition, further explanation is provided where needed to clarify specific cases or examples used as evidence, in particular where those might provide counter-examples and exceptions to the overall assessment, although these additional descriptive terms informed the evidence base rather than the formal findings.

The subject of the evaluation (and of each sub-sector) being particularly complex and broad, there is a wide range of variables and factors that impact on outcomes and broader effects. Therefore, the evaluation aims at providing evidence for **Finnish contribution** to these effects, rather than seeking to establish direct claims of attribution. Where a significant amount of Finnish funding was provided through multilaterals, international organisations and other partners, it was not possible to claim any effects as direct results of Finnish support. Finland's share can, in fact, be relatively small, and – wherever feasible – the evaluation attempts to specify the (likely) weight of Finnish contribution in given contexts.

For consistency, **beneficiaries** were defined as individuals and institutions who could reasonably be considered to have received some form of benefit from an action funded wholly or in part by the MFA. Benefits and beneficiaries are discussed in the findings in Chapter 4.

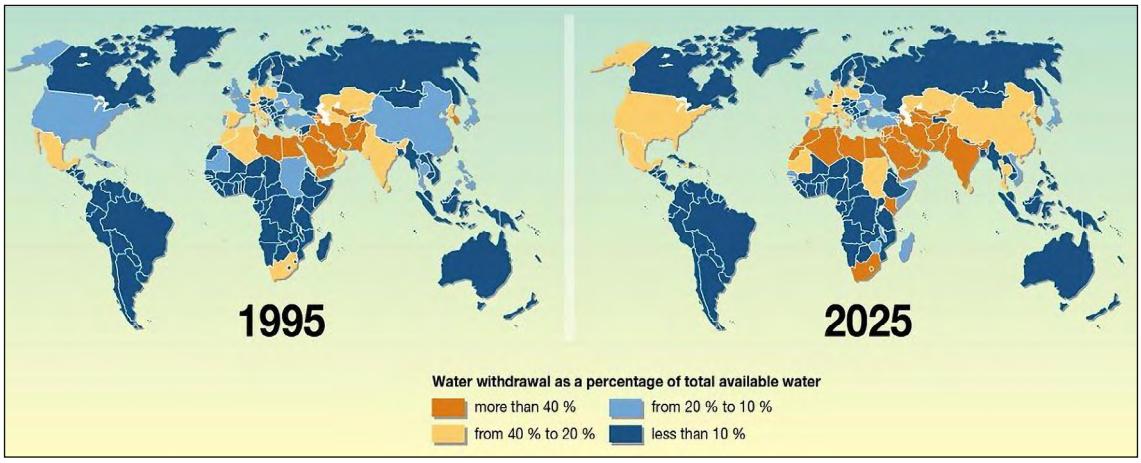
3 Context Analysis

3.1 Global policy context and trends

Global status of water as a natural resource

The water sector is acutely problematic in many countries and is becoming more so with the degradation of catchment ecosystems and advancing climate change. Thus, "Freshwater use has been growing by just under 1% per year, driven by a combination of socio-economic development and related changes in consumption patterns, including diet. ... Roughly half of the world's population currently experiences severe water scarcity for at least part of the year. One quarter of the world's population face 'extremely high' levels of water stress, using over 80% of their annual renewable freshwater supply. ... Record rainfall extremes have been increasing worldwide, as have the frequency, duration and intensity of meteorological drought. Climate change is projected to intensify the global water cycle, and to further increase the frequency and severity of droughts and floods." (UNESCO, 2024, p. 1). The figures for fresh water availability today are closely in line with United Nations (UN) predictions for the expected global expansion of rising national water deficits during this evaluation's focal period of 2010–2025 (Figure 2).

Figure 2 Water withdrawals as a percentage of total available water, 1995–2025



Source: UNEP-GRID Arendal (2009)

International agreements on water as a natural resource

As difficulties and emerging crises in the availability of clean, fresh water have emerged worldwide, the international community has developed an array of goals and treaties to guide and coordinate corrective efforts. These include:

- The **Sustainable Development Goals,** in particular SDG 6 (Water and Sanitation for All), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 14 (Life Under Water) and SDG 15 (Life on Land). Their associated targets all focus on meeting human needs fairly and sustainably at all levels, through wise and cooperative management of water and other renewable natural resources that depend on healthy ecosystems, while effectively addressing key threats to human wellbeing and security that arise from harm to such resources.
- The European Union (EU) **Water Framework Directive**, which requires integrated river basin management, and aims to ensure clean rivers, lakes, ground water and coastal beaches throughout each member state. It sets high standards for river basin planning, and for the ecological quality and chemical purity of surface and ground waters. A Common Implementation Strategy requires each member state to make and measure progress and exchange lessons with each other and the European Commission, thus providing a standard model for other treaties (such as the UNFCCC Paris Agreement) and an influential 'gold standard' for Water as a Natural Resource.
- Water-related multilateral environmental agreements, including: (i) the **Convention on Biological Diversity** (Rio 1992), which inter alia promotes nature-based solutions to global water challenges and threats to inland water systems; (ii) the **United Nations Economic Commission for Europe (UNECE) Water Convention**,[4] which encourages sustainable management of shared water resources, regional integration, and conflict prevention; (iii) the **Bonn Convention**,[5] which is key to protecting wetlands and river/lake systems that support migrating populations of waterfowl and aquatic organisms; (iv) the **Convention on Wetlands,**[6] which fosters the protection of seasonal and tidal wetlands; (v) the **UNCCD**,[7] which furthers action to combat desertification and mitigate the effects of drought; and (vi) the **UNFCCC**[8] (Rio 1992), which provides the foundation for multilateral action to combat climate change and its impacts on humanity and ecosystems.

4 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki 1992). The Watercourses Convention (Convention on the Law of the Non-Navigational Uses of International Watercourses, New York 1997) supports the UNECE Water Convention by validating key principles and compiling relevant international law but lacks specific implementation mechanisms such as a secretariat or decision-making conferences.

5 Convention on the Conservation of Migratory Species of Wild Animals (Bonn 1979), which is particularly relevant to transboundary water agreements and where dams are being built on rivers, as was the case in the Mekong Basin during MFA's support for the Mekong River Commission.

6 Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar 1971), driven by the knowledge that wetlands are key to many ecosystem goods (such as biodiversity, fisheries and amenity) and services (such as flood control, groundwater recharge and carbon storage).

7 United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (Rio 1992), which encourages and enables the development of drought early warning systems, vulnerability and risk assessments, and practical drought risk mitigation measures involving sustainable irrigation and water harvesting schemes, drought-tolerant crops, crop insurance schemes and alternative livelihoods.

8 United Nations Framework Convention on Climate Change (Rio 1992), which has a twin focus on reducing net greenhouse gas emissions ('mitigation') and on strengthening social and ecological systems against the impacts of climate change ('adaptation'). The latter includes actions such as developing national hydrological maps and Water as a Natural Resource models, defining indicators for the health of water catchment ecosystems, diversifying water supply and storage systems, and developing legal and institutional frameworks for effective Water as a Natural Resource management, for all of which countries define targets.

Role of EU in water as a natural resource

The EU dimension is imperfectly visible in the MFA portfolio data, since inter alia: (a) Finland's financing of the European Bank for Reconstruction and Development is recorded as multilateral support to an international financial institution; (b) Finland's financing of the Institute for European Environmental Policy is recorded as support to civil society organisations; (c) Finland's share of the EU development cooperation budget is not managed by MFA and is recorded as other official development assistance (ODA) disbursements; (d) it is not clear how Finland's contributions to the EU's Neighbourhood, Development and International Cooperation Instrument or the European Development Fund are recorded, and (e) OpenAid entries for Finnish contributions via the Global Gateway contain no data. Thus, Finland's share of EU ODA is only visible as its total amount in the Finnish ODA statistics, and therefore it is not possible to determine how much of the Finnish contribution to the EU budget has been allocated to any sub-sector.

The relationship between Finland and the EU is nevertheless deep, complex and influential within the sub-sector, both in funding and policy terms. Table 2 highlights areas of synergy between the European Green Deal and recent Finnish development policy. The practical effects of this convergence in the Water as a Natural Resource sub-sector mean that the EU is mentioned repeatedly in this report, with reference to: (i) the Water Framework Directive (e.g. mutual influence with the Finnish Water Way in favour of bioregional holistic treatment of water-bearing ecosystems and groundwaters); (ii) the co-financing of specific interventions (e.g. of Phase III of the Rural Village Water Resources Management Project, Sustainable WASH for All, and Local Adaptation to Climate Change, all in Nepal, and of a potential groundwater recharge management project in Vietnam); (iii) the development of private sector engagement (e.g. the emerging role of the Global Gateway, and funding from the EU's Water Expertise Growth and Export Programme for water sector projects by Finnish companies within – and in some cases outside – the Finnish Water Forum); and (iv) support for EU Special Representatives in trans-border water disputes through the Water for Peace network of Finnish Water Diplomacy. Collaboration between Finland and the EU is likely to grow and diversify in coming years. For example, Finland participates in the implementation of the Global Gateway strategy that was launched in 2021 (see Section 3.4).

Table 2 Priorities relevant to the Water as a Natural Resource sub-sector of the European Green Deal and Finnish development cooperation.

EUROPEAN GREEN DEAL	FINNISH DEVELOPMENT COOPERATION
Water and ecosystems. "Ecosystems provide essential services such as food, fresh water and clean air, and shelter. They mitigate natural disasters, pests and diseases and help regulate the climate. ... The EU and its global partners need to halt biodiversity loss [from] worldwide erosion of biodiversity, caused primarily by changes in how land and sea are used, direct exploitation of natural resources, and with climate change" (EC, 2019, p. 13). **Water and food.** "Food production still results in air, water and soil pollution, contributes to the loss of biodiversity and climate change, and consumes excessive amounts of natural resources. ... Measures such as eco-schemes should reward farmers for improved environmental and climate performance, including managing and storing carbon in the soil, and improved nutrient management to improve water quality and reduce emissions." (EC, 2019, pp. 11–12). **Water and pollution**. "Creating a toxic-free environment requires more action to prevent pollution from being generated as well as measures to clean and remedy it. To protect Europe's citizens and ecosystems, the EU needs to better monitor, report, prevent and remedy pollution from air, water, soil, and consumer products. ... To address these interlinked challenges, the Commission will adopt in 2021 a zero pollution action plan for air, water and soil. The natural functions of ground and surface water must be restored. This is essential to preserve and restore biodiversity in lakes, rivers, wetlands and estuaries, and to prevent and limit damage from floods. ...The Commission will propose measures to address pollution from urban runoff and from new or particularly harmful sources of pollution such as micro plastics and chemicals, including pharmaceuticals. There is also a need to address the combined effects of different pollutants." (EC, 2019, p. 14). **Water, digitalisation and the green transition**. "The Commission will explore measures to ensure that digital technologies such as AI, 5G, cloud and edge computing and the internet of things can accelerate and maximise the impact of policies to deal with climate change and protect the environment. Digitalisation also presents new opportunities for distance monitoring of air and water pollution, or for monitoring and optimising how energy and natural resources are used." (EC, 2019, p. 9).	"Finland promotes the sustainable management, use and protection of renewable natural resources and ecosystems, including forests and **water resources**, and the halting of desertification and soil degradation. ... Peaceful transboundary water resources management is part of Finland's foreign and development policy. ... Climate change and biodiversity are considered as a whole. Diverse, well-functioning ecosystems store carbon and are vital for climate change mitigation as well as for ensuring **food and nutrition security**, clean air and **water access**. ... Boosting **circular economy** systems is taken into account in development policy and development cooperation, including efforts to strengthen **food and nutrition security, agriculture** and sustainable use of natural resources. Sustainable management of **waste and chemicals** is an essential element of a circular economy." (MFA, 2021, p. 13) "Climate change and biodiversity loss are global problems and their mitigation and prevention require closer international cooperation. The ongoing economic transition to a production model that is not based on fossil fuels and overconsumption of natural resources creates high demand for clean energy, environmental technology and bioeconomy and **circular economy solutions**." (MFA, 2021, p. 18). "Climate change, biodiversity loss and **pollution** affect all countries. ... Finland supports the efforts of developing countries in the mitigation of climate change and adaptation to it, and halting biodiversity loss in accordance with its international obligations. International climate targets also create markets for **environmental and climate technology** and increase demand for the products and solutions of Finnish companies. Development funding can be allocated to companies that develop innovative technologies and service models for developing markets. ... Sustainable forest management mitigates climate change and helps to adapt to it." (Government of Finland, 2024, p. 27). "Finland has world-class expertise in **digital transformation**. ... Relevant expertise can be found in both the public and private sector, and include expertise in connectivity, cybersecurity, digital public services, data economy, smart cities, innovation ecosystems, Geographic Information Systems, e-learning and digital skills. Competitive expertise also includes digital solutions in support of the green transition." (Christensen et al, 2025, p. 38)

Source: references within table

Emerging science of a climate emergency

The biosphere encompasses all places where life exists on Earth, from deep underground to high in the atmosphere. All life exists within ecosystems, and water is essential to all life, so there is a close relationship between water and the integrity of ecosystems (Caldecott, 2009). Water availability is a function of how ecosystems work, at all scales up to and including the biosphere, with pervasive cycles of water changing back and forth among its three phases (gas, liquid, solid) and flowing between locations and ecosystems under the influence of heat arriving from the sun. All major Earth systems (such as the oceans and atmosphere and their currents, major biomes like forests and grasslands, and large river basins and polar regions) are now under severe stress (Richardson *et al*., 2023). A leading factor is solar heat trapped on Earth by the greenhouse effect driven by greenhouse gases in the air, including carbon dioxide (CO_2) and methane (CH_4) which in recent decades have been released by human activities at rates that far exceed the biosphere's ability to render them safe.

The result is global heating and climate change, and the approach of stressed Earth systems to their tipping points (Lenton *et al*., 2018; Caldecott, 2022; Kemp *et al*., 2022; McKay *et al*., 2022; Rockström *et al*., 2024), at least one of which – that of warm-water coral reef survival – may now have been reached (Lenton et al., 2025). Of particular urgency is that the Arctic Ocean is likely to be effectively ice free in summer by about 2032. The exceptional heat-wave experienced by the Nordic countries in July 2025 is one sign of this coming about (Niranjan, 2025). Since ice takes 80 times more heat to melt than water takes to heat up, an ice-free ocean will heat rapidly in the summer months. This would be expected to accelerate the release of methane that is currently stored as frozen clathrate in shallow sea-beds or available for release through bacterial metabolism from melting permafrosts. Were these sources to be fully mobilised, they would release hundreds of billions of tonnes (hundreds of gigatonnes) of CH4, which is about 86 time more potent as a greenhouse gas than CO2 over 25 years. Thus one gigatonne of methane released in a year could greatly exceed the combined heating effect of all other greenhouse gases released in that year. Even a small share of this methane escaping into the atmosphere each year in 2030–50 could therefore overwhelm all current net zero plans. Assessing this risk and finding ways to recapture methane at scale from the open air would be wise precautions.

Since all Earth systems are connected and influence one another, a cascade of tipping points is distinctly possible, with potentially catastrophic consequences for life on Earth. Human beings evolved during the last 250,000 years of the Ice Ages, under very unstable climatic conditions. Hence we are flexible and robust, but even we have adaptation limits and these could be challenged over much of the world's surface in coming decades. This is an essential biophysical context for thinking about Water as a Natural Resource issues, in which climate change adaptation and disaster risk reduction are necessary elements in a strategy to increase the resilience of human communities and populations to increasing hazards.

3.2 Finnish policy and institutional context

Finnish policies shaping development cooperation in the sub-sector

The abundant availability of clean, fresh water has an important place in Finnish peoples' sense of well-being, and an ethical commitment to help others share this well-being has ensured that

substantial Finnish ODA has been dedicated to the water sector. This has taken the form of diverse project-delivery and enabling water sector interventions since the start of Finland's official aid programming in the 1990s (Matz *et al*., 2010). Successive Finnish development policies were thereafter clear: (i) that "balanced and integrated management of water resources is a prerequisite for ensuring the various needs for the use and protection of waters as well as human well-being" (MFA, 2012, page 38); (ii) that "Finland's actions strive to promote that peoples possibilities to produce or buy food have improved; the number of people with access to high-quality water supply has increased and more people have access to and use decent toilets" (MFA, 2016, page 22); and (iii) that "Finland promotes the sustainable management, use and protection of renewable natural resources and ecosystems, including forests and water resources ... Peaceful transboundary water resources management is part of Finland's foreign and development policy" (MFA, 2021, page 13). These commitments and associated priorities provided the context for the summative (retrospective) aspects of the present evaluation.

There was a significant change in context in 2024, however, when new policy called for increased Finnish private sector engagement in development cooperation. Specifically, a policy analysis by Government of Finland (2024) focused on the fact that transitions now underway in many countries, towards sustainability and circularity in all aspects of the economy and the use of all natural resources, contain within them "significant opportunities for Finnish companies" (page 18). This policy advance was followed in 2024–25 by major cutbacks in ODA by the United States, United Kingdom, Germany and Canada (Huckstep *et al.*, 2025). This also happened in Finland (Ranta & Kaskinen, 2024) where, following steady growth in ODA appropriations in 2016–2021 (MFA, 2022, p. 13), cuts were announced in 2024 to MFA's ODA budget for 2024–28 that included EUR 500 million from country-specific and regional cooperation, EUR 60 million from multilateral cooperation, EUR 130 million from humanitarian aid, and EUR 240 million from loan-based development financing (YLE News, 2024). A further EUR 50 million cut in ODA was announced in 2025 (Helsinki Times, 2025).

These events add urgency to the quest for a greater private sector engagement role, as well as the knowledge that past assumptions about ODA commitments and relationships involving any country are no longer necessarily valid. This new situation is the context for the formative (forward-looking) aspects of the present evaluation. The aim going forward, therefore, is to harness the creativity of the Finnish business sector to speed progress in effective but also sustainable and profitable ways, and especially in all sectors where Finland has a competitive advantage. So the forward-looking elements of this report give specific attention to the potential for Finnish private sector engagement in the sub-sector.

Finnish institutions responsible for development cooperation in the sub-sector

The theory of change for the sub-sector is complex and involves multiple parallel and inter-connected pathways of cause and effect within systems that embrace land use within water catchments, the treatment of surface and sub-surface waters, and the operation of service-delivery systems, all of them subject to human decisions and dependent on the capacity of responsible institutions. Sub-sectoral concerns therefore permeate many aspects of development cooperation both as a focus and as a cross-cutting objective linked to multiple environmental and social dimensions.

Although MFA is ultimately responsible for Finnish ODA spending on Water as a Natural Resource, supported by departments and units with necessary expertise,[9] various other actors also have key roles. In terms of overseas implementation, among public institutions these include: (i) Finnish research centres[10] and universities with Water as a Natural Resource interests and expertise[11] that carry out ICI projects or participate in applied research in support of Water as a Natural Resource interventions in target countries; (ii) Finnish non-governmental organisations such as WaterFinns and the World Wide Fund for Nature (WWF) Finland and international organisations including the International Union for Conservation of Nature (IUCN); and (iii) participants in Finnish water diplomacy[12]. The ministries in the water diplomacy group[13] also collaborate in leading and managing the Finnish Water Way, which has a key role in orchestrating Finland's internal and international Water as a Natural Resource strategy. Integral to it is the Water Stewardship Commitment (*Vesivastuusitoumus*) by which institutions promise to help reach the goal of Finland's and Finnish companies' having the highest level of water responsibility in the world by 2030. Also spanning both internal and external dimensions, as well as the interface between the public and private spheres, is the Finnish Water Forum[14] which features prominently throughout this report. A similar spanning role is also taken by the Finnish consulting firms, which advise internal Finnish stakeholders (including municipal and regional governments and Centres for Economic Development, Transport and the Environment) and also often manage MFA-funded overseas development cooperation projects such the bilateral interventions in Table 1.

In addition to governmental and research actors, Finnish non-governmental organisations also contribute to the sub-sector, both through direct interventions and by building the human resource base for future cooperation. Two Finnish non-governmental organisations were investigated by the Water as a Natural Resource evaluation team: WWF Finland and WaterFinns. Interviewees confirmed that water comprises a relatively small (although strategic) part of WWF Finland's MFA-funded programme portfolio, since its main focus during the evaluation period was on forests and community forestry, climate change adaptation and governance (WWF Finland, 2025). With resources from MFA, WWF Finland has supported the WWF network's efforts on freshwaters, in collaboration with: WWF Bolivia, for which protection and management of the Rio Blanco RAMSAR site is a focus; WWF Tanzania, which has a major intervention based on a 'water tower' approach in the East Usambara Mountains; WWF Nepal's Indrawati sub-basin project; and the Living Himalayas Initiative of WWF-Bhutan/-India/-Nepal, which sees water as the 'currency' of regional transformation. The International Cooperation Programme Director of WWF Finland (like several

9 Including the units for Climate and Environmental Diplomacy and Development Finance and Private Sector Cooperation in the Department for Development Policy, geographical departments, and special advisers and counsellors at Finland's embassies abroad.

10 Including the Finnish Meteorological Institute, Geological Survey of Finland (GTK), Natural Resources Institute Finland (Luke), Finnish Environment Institute (Syke) and Technical Research Centre of Finland (VTT).

11 Including Aalto University, Kajaani University of Applied Sciences, Oulu University of Applied Sciences, University of Helsinki, Häme University of Applied Sciences, University of Eastern Finland, Lappeenranta University of Technology, Laurea University of Applied Sciences, University of Oulu, Savonia University of Applied Sciences, Environmental School of Finland, Tampere University of Technology, Turku University of Applied Sciences, and the University of Turku.

12 MFA hosts the Centre for Peace Mediation which has a leading role in the Water for Peace initiative through the Special Envoy for Water, but works in partnership with all five ministries responsible for the Finnish Water Way.

13 These include MFA itself, the Ministry of Agriculture and Forestry (which also handles transboundary Water as a Natural Resource relationships with Finland's neighbours and collaboration on the Water-Food-Energy-Ecosystems Nexus with the secretariat of the Water Convention), the Ministry of Economic Affairs and Employment, the Ministry of the Environment, and the Ministry of Social Affairs and Health.

14 The Finnish Water Forum is funded partly by MFA (the largest public contributor), partly by Ministry of Agriculture and Forestry, Ministry of Social Affairs and Health and Ministry of Environment, partly by membership fees, and partly (increasingly in recent years) by charges levied on development cooperation (not always Finnish) and other projects in which it participates. As of Sep 2022 the Forum had 133 members, 80% of them private water sector companies and the rest comprising the five Water Way ministries, five key research institutions (footnote 10), 14 universities (footnote 11), and various non-governmental organisations, trade associations and the Finnish Innovation Fund (Sitra, which is a leading actor in promoting the circular economy).

other interviewees in senior positions, including the Special Envoy for Water) is an alumnus of WaterFinns, a charity that exists to help early-career Finns to gain experience in the water sector. It does this using its own field projects, which are 85% funded by MFA and have been located in Nepal, Vietnam, Tanzania and Ethiopia where long-term Finnish bilateral projects were underway (Table 3). The WaterFinns portfolio is an important complement to MFA's Water as a Natural Resource portfolio, and through its strategic contribution to career establishment has had a vital role in building Finnish competence in the sub-sector.

Table 3 The WaterFinns project portfolio during the evaluation period (2010–25)

PROJECT LOCATION, DATES, LINK	PROJECT AIMS
Nepal (2025–28), Climate Smart WASH	To improve the management of water resources, reduce the adverse impacts of climate change and improve the level of water supply and sanitation in Devchuli Municipality, Nepal.
Nepal (2023–25), WASH Model Village	To capacitate rural communities and Devchuli Municipality to reach Nepali national total sanitation standards, and to demonstrate replicable procedures for reaching total sanitation at community and municipality level.
Ethiopia (2021–24), Halaba zone	To improve access to drinking water for over 18,000 people by rehabilitating three water supply schemes in three villages in Halaba zone, Southern Nations, Nationalities and Peoples' Region (SNNPR), Ethiopia.
Nepal (2019–21), Navalparasi	To provide a sustainable, community-maintained and healthy water supply alongside better sanitation.
Vietnam (2017–19), Lao Cai Province	To build water distribution systems in two communes (Hop Thanh and Ta Phoi), and to introduce ways to monitor water quality.
Nepal (2014–19), Navalparasi & Palpa	To continue previous WaterFinns involvement in WASH sector development in Nepal, focusing on six villages in the 'Lumbini-zone' of Western Nepal.
Tanzania (2012–15), Mtwara Rural District	To improve the sustainability of water supply and sanitation in selected villages through user-managed water supply systems.
Vietnam (2012–15), Lao Cai Province	To improve community health amongst ethnic minorities by promoting hand-washing and other hygiene behaviour change.
Nepal (2010–14), Kanchanpur	To research and implement sustainable water supply solutions in areas with arsenic-rich groundwater, and to enhance sanitation conditions in target villages.

Source: http://waterfinns.fi/#projects

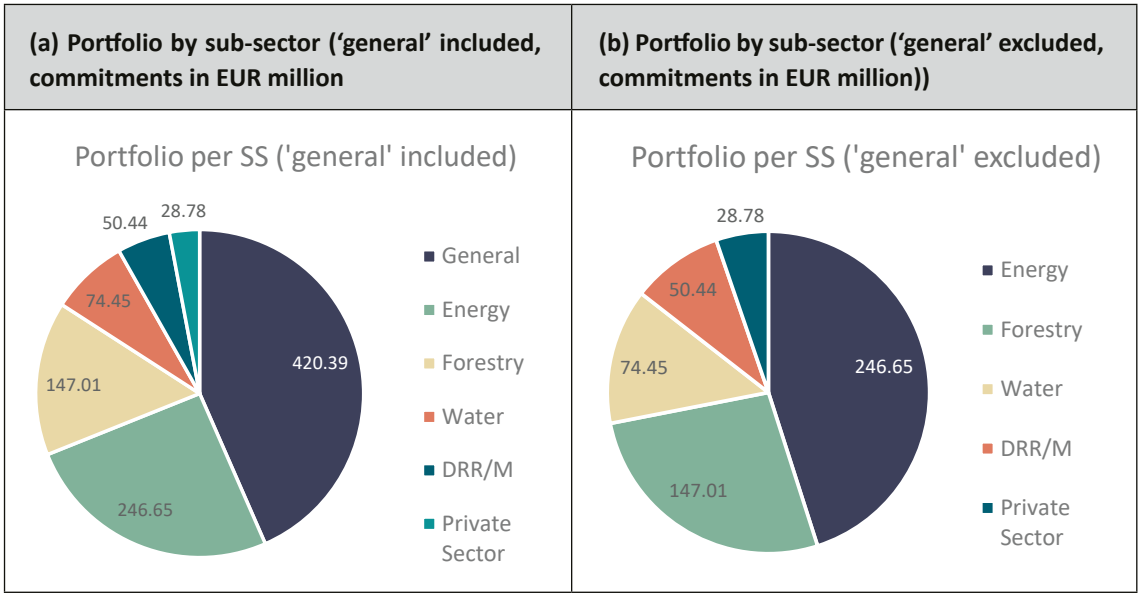
This complex 'ecosystem' of public and private actors in the Water as a Natural Resource sub-sector, like the diverse actions that they undertake, is resistant to being meaningfully aggregated and simplified, and this helps to shape how the findings of this evaluation are presented in Chapter 4 below.

3.3 Portfolio review

Main features of the water as a natural resource portfolio

Quantitative portfolio data of ODA commitments in the Environment and Natural Resources policy priority area in 2015–22, that was made available to the evaluation, indicate a total commitment of EUR 967.72 million.[15] Of this sum, 43% was made to 'general' interventions that do not clearly fall under any of the four sub-sectors but were distinctly related to Environment and Natural Resources and/or climate change (Figure 3a). Excluding them clarifies that water is the third-largest sub-sector within the Environment and Natural Resources portfolio under review, with commitments amounting to EUR 74.45 million between 2015 and 2022 (Figure 3b).

Figure 3 Water as a Natural Resource portfolio share from Environment and Natural Resources portfolio (commitments, EUR million)



Source: MFA/evaluation team

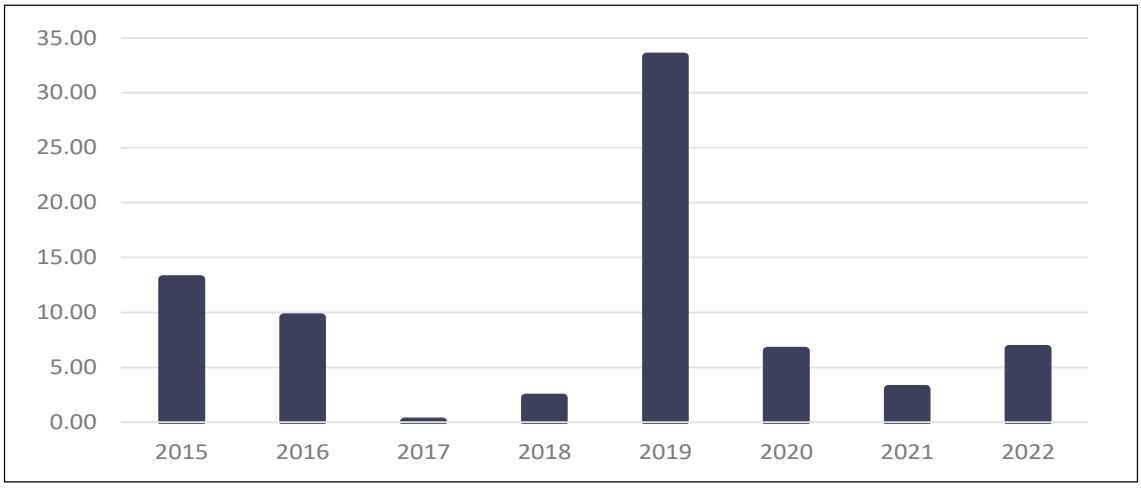
Only interventions explicitly focused on Water as a Natural Resource are used in the following portfolio analysis, along with those that had a distinct private sector emphasis within the sub-sector. This sub-sector does not have any further subdivisions. Interventions that focused solely on sanitation and hygiene aspects of WASH without a clear link to Water as a Natural Resource were excluded from the portfolio, in accordance with the scope defined in the terms of reference.

Figure 4 shows a decline in Water as a Natural Resource commitments in the period 2015-18, coinciding with the closure of a number of water-related programmes (e.g. in Vietnam in 2017, UNCCD support in 2017, and Mekong River Commission support in 2015). A similar picture is seen in the Forests, Ecosystems and Biodiversity sub-sector, where the same period was marked by the closure of many more programmes, including three in Zambia in 2017–19, two in Vietnam in 2018, at least three in Lao PDR (People's Democratic Republic)/Mekong in 2015–19, and two in

15 Finland's exclusive ODA budget is administered by the MFA and excludes Finnfund investments.

the Americas in 2016 (see Forests, Ecosystems and Biodiversity report). That all these 'ecological' (water and ecosystem) interventions ended at a similar time suggests a change in direction by the Finnish government in general and MFA in particular. The 2015–19 period in fact coincides with the time in office of the Sipilä government, which had a more 'technological' and 'bioeconomy' focus on a 'fourth industrial revolution' (e.g. Sipilä, 2016) than an 'ecological' one (NAO, 2019). It fell from power in 2019 at least in part because it was perceived as responding inadequately to global environmental issues, specifically climate change which was then a very potent issue in European and Finnish politics (Palonen, 2020). Ironically, a circular bioeconomy focus later became recognised as a key part of the solution to global sustainability (see Section 3.2 and Finding 15), and the 2018 Finnish Water Way itself had a deep influence in the Water as a Natural Resource sub-sector (see Section 3.2 and Findings 6, 11 and 15). In any case, an inverse effect was seen in the Disaster Risk Reduction and Meteorology and Energy, Circular Economy and Critical Minerals sub-sector portfolios (see the respective sub-sector evaluation reports), which show increased commitments in 2015–19 consistent with a more 'technological' approach to development cooperation.

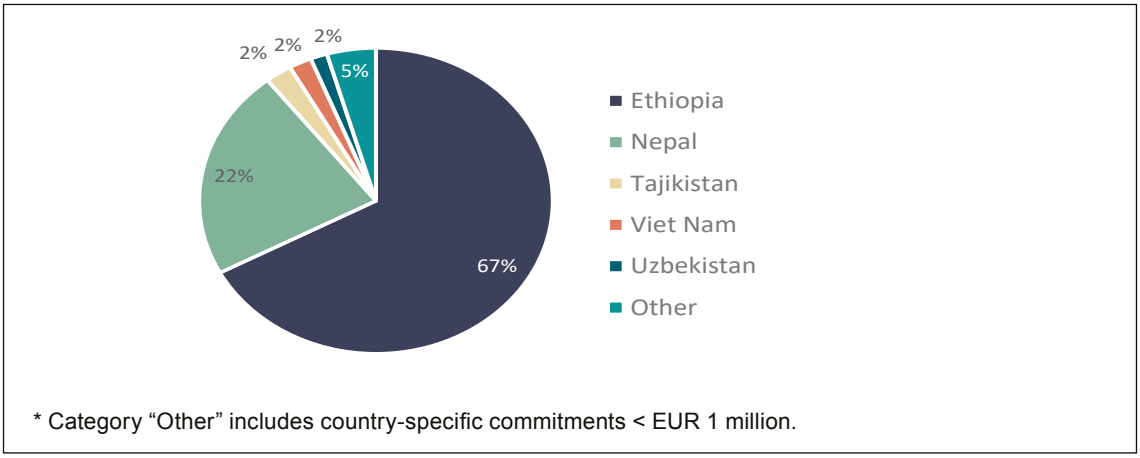
Figure 4 Water as a Natural Resource commitments in 2015–2022 (EUR million)



Source: MFA/evaluation team

Figure 5 illustrates the net effect of refocusing MFA's major commitments in the Water as a Natural Resource sub-sector from a range of countries (Vietnam, Kenya, Zambia, Uganda, Ethiopia, Nepal) and regions (Mekong, Nile, North Africa) to only two (Ethiopia and Nepal). It also shows the effect of expanding commitments in Ethiopia and Nepal in around 2019, which in turn responded to the Finnish success in Ethiopia by integrating their WASH activities within the One WASH National Programme in 2017 (COWASH, 2022, p. 66) and in Nepal by adapting effectively to the post-2015 federalisation process (and especially the post-2017 election period), which also attracted very strong counterpart support (Finding 3) and later EU co-financing (Table 1). In other words, MFA responded to its own successes and the enthusiasm of partner governments by investing more in these two focal countries while disengaging elsewhere.

Figure 5 Water as a Natural Resource portfolio by country (%)

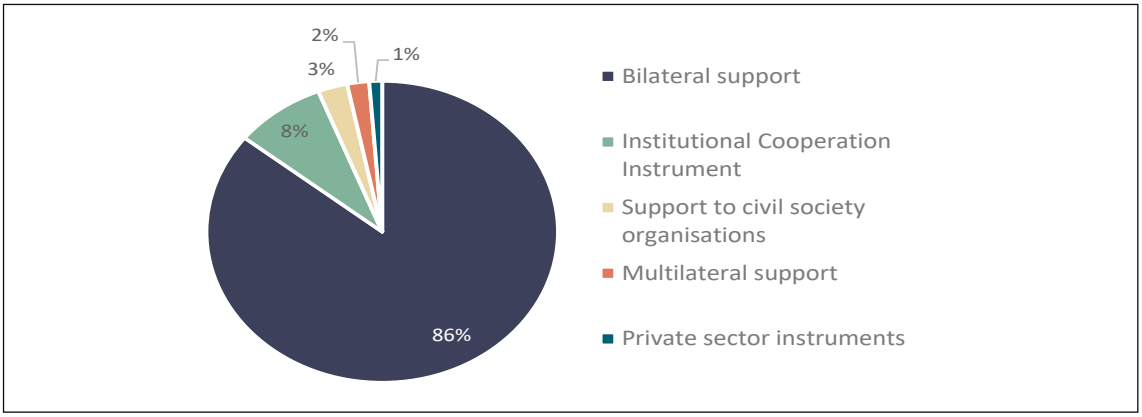


* Category "Other" includes country-specific commitments < EUR 1 million.

Source: MFA/evaluation team

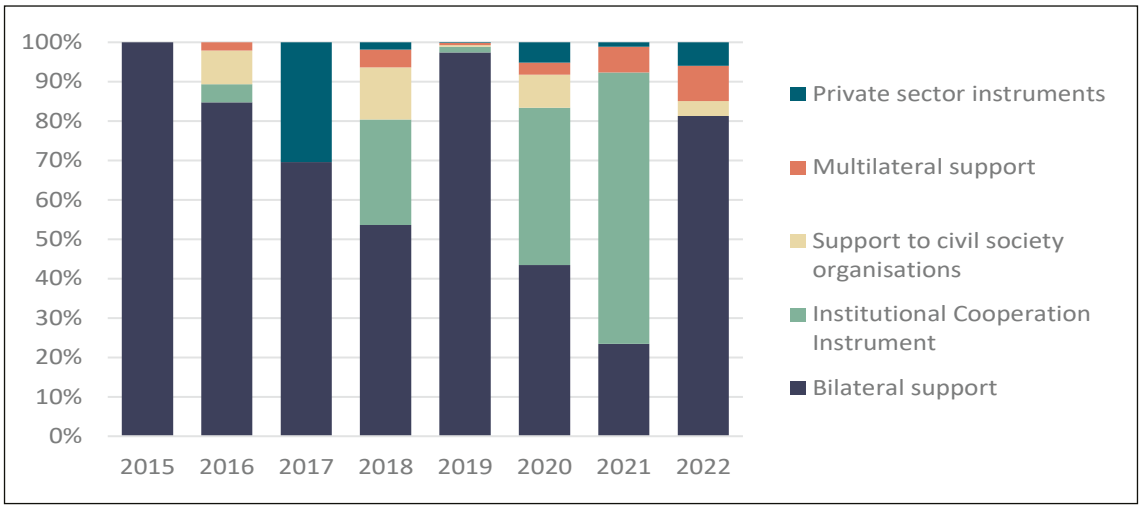
Figure 6 shows the clear dominance of bilateral support in the period concerned, which grew as major regional and multilateral commitments and minor bilateral ones declined and the two major bilateral programmes (in Ethiopia and Nepal) continued. Small (but strategic) multilateral support and non-governmental organisation commitments also continued – especially to the UNECE Water Convention and the Finnish Water Forum – as did a portfolio of small (but effective) ICI and private sector (especially Finnpartnership) interventions. Figure 7 that follows does not quite reflect the events known to have occurred in the sub-sector (see Table 4) – for example, showing 100% of commitments being bilateral in 2015, a complete lack of multilateral support in 2017 and a large dominance of ICI in 2021. These are presumed to be artefacts of the selection of interventions for examination, and differences between commitments and expenditures in any given year.

Figure 6 Water as a Natural Resource portfolio per instrument (%)



Source: MFA/evaluation team

Figure 7 Use of instruments over time in Water as a Natural Resource (%)



Source: MFA/evaluation team

The sub-sector portfolio examined

As described in Section 2.2 and Annex 1, the proforma technique was applied to selected past (since 2010) and ongoing (in 2025) interventions in the Water as a Natural Resource sub-sector. Table 4 presents all interventions examined in this way, organised according to four distinct strategies of engagement that emerged from the review. Each has a descriptive statement of its theme, a thumbnail portrait of its strategy, a note on how it relates to the sub-sectoral theory of change, and a list of the unique cases that were judged to be following that strategy.

Table 4 Themes and strategies of MFA support in the Water as a Natural Resource sub-sector.

THEME 1. ENTERPRISE PARTNERSHIPS
Strategy. To bring together financial, intellectual and institutional capital in a way that stimulates and responds to Finnish enterprise in creating new business opportunities that also contribute to Finnish Environment and Natural Resources goals.
Links to theory of change. Connects short-range results (ecosystem knowledge, water governance knowledge, resilience knowledge) to medium-range results (institutional improvements, economic improvements) and onward to long-range results (economic systems) and SDG/multilateral environmental agreement impact.
Cases. (i) Support to the Finnish Water Forum (2009–25, 4 ministries – MFA, Ministry of Agriculture and Forestry, Ministry of Social Affairs and Health, Ministry of Environment). (ii) RiverRecycle Oy (Finnpartnership, ca 2020–23). (iii) Circulate Capital, Finland-International Finance Corporation Blended Finance for Climate Program, ca 2020–2023).

THEME 2. WASH PARTNERSHIPS
Strategy. To concentrate resources to enable improved WASH services under accountable local governance within a small number of partner countries (by today's date only Ethiopia and Nepal). They are further focused within subnational regions, often particularly challenging ones where change is most needed, and where there are also important shortfalls in gender equity, disabled and social inclusion that attract special Finnish interest.
Links to theory of change. Connects short-range results (water governance knowledge, WASH system actions) to medium-range results (institutional improvements, climate change adaptation improvements) and onward to long-range results (social systems) and overall SDG/multilateral environmental agreement impact.
Cases. (i) Rural Water Supply & Sanitation Project in Western Nepal (RWSSP-WN, 2008–19). (ii) Rural Village Water Resources Management Project (RVWRMP, Nepal, 2006–22 + EU in Phase III). (iii) Sustainable WASH for All (SUSWA, Nepal, 2021–27, + EU). (iv) Community-Led Accelerated WASH Project, Phase III/IV (COWASH III/IV, Ethiopia, 2016–24). (v) Water and Sanitation Programme for Small Towns in Vietnam, Phases I–III (WSPST, 2004–17). (vi) Joint Six Programme: Support to Equitable Access to Quality Water, Basic Sanitation and Enhanced Water Resources Management in Rural Kenya (J6P, 2014–21, + Swedish International Development Cooperation Agency).

THEME 3. ENVIRONMENTAL PARTNERSHIPS
Strategy. To build applied and participatory research, inclusive planning and action partnerships primarily to promote environmental sustainability.
Links to theory of change. Connects short-range results (ecosystem knowledge, water governance knowledge, resilience knowledge, transboundary actions) to medium-range results (institutional improvements, catchment-wide agreements, climate change adaptation improvements) and onward to long-range results (economic systems, environmental systems, cooperative systems) and SDG/multilateral environmental agreement impact.
Cases. (i) Increasing Climate Change Resilience of Zanzibar with Integrated Marine Management and Sustainable Blue Economy (BLUE-ZAN, 2023–27). (ii) National Spatial Data Infrastructure for Integrated Coastal and Marine Spatial Planning in Zanzibar (ZAN-SDI, 2016–19). (iii) Local Adaptation to Climate Change (LACC, Nepal, 2024–29, + EU).

THEME 4. COOPERATIVE PARTNERSHIPS (14.4% OF MFA FINANCING IN WATER AS A NATURAL RESOURCE SUB-SECTOR PROFORMAS).
Strategy. Within Finland, the emphasis is on working with communities of interest and expertise to exert influence on behalf of Finland's strategic goals of peace, well-being and security for all. Beyond Finland, it is on working with multilateral regional systems, a multilateral global system, and multi-ministerial national systems; all were successful, but only the second and third have been sustained for long enough to reach today's date.
Links to theory of change. Connects short-range results (ecosystem knowledge, water governance knowledge, resilience knowledge, transboundary actions) to medium-range results (institutional improvements, economic improvements, catchment-wide agreements, climate change adaptation improvements) and onward to long-range results (economic systems, environmental systems, cooperative systems) and overall SDG/multilateral environmental agreement impact.

THEME 4. COOPERATIVE PARTNERSHIPS (14.4% OF MFA FINANCING IN WATER AS A NATURAL RESOURCE SUB-SECTOR PROFORMAS).
Cases. (i) Support to the Nile Basin Initiative (NBI, 2002–10, + the World Bank). (ii) Support to the Mekong River Commission (MRC, 2005–15). (iii) Catalytic Support to the UNCCD in West Asia & North Africa, Phase V (2013–17, + UNDP). (iv) Support to the Water Convention (2012–2025). (v) Finnish Water Diplomacy (2010–24, later including Centre for Peace Mediation, Special Envoy for Water, 4 ministries – MFA, Ministry of Agriculture and Forestry, Ministry of Environment and Ministry of Social Affairs and Health). (vi) Finnish Water Way: International Water Strategy of Finland (2018–2025, 5 ministries – Ministry of Agriculture and Forestry, Ministry of Economic Affairs and Employment, Ministry of Environment, MFA & Ministry of Social Affairs and Health). (vii) Cooperation agreements on transboundary waters (Norway, Sweden, USSR/Russia, 1959–2025). (viii) Comparison of Partnerships for Just and Sustainable Water among like-minded peer countries (like-minded peer country/Water as a Natural Resource).

Source: proformas reviewed by the evaluation team; MFA financing data from Table 1

The total contribution of MFA to the budgets of proforma interventions across all four strategies was EUR 250.6 million. This spending was divided among the four strategies labelled *enterprise partnerships* (3.5%); *WASH partnerships* (75.6%); *environmental partnerships* (6.6%); and *cooperative partnerships* (14.4%). But the proformas covered only a sample of a larger MFA portfolio for the Water as a Natural Resource sub-sector, the total scale of which is unknown because, *inter alia*, only data from 2015–22 were available for analysis. Nevertheless, data presented above (e.g. in Figure 6) are consistent with this description, since the great dominance of major bilateral (mainly WASH) interventions is clear in both, with much smaller shares in both going to ICI, civil society, private sector and multilateral cooperation forms of support.

Not included in the proforma totals are financial allocations in the water diplomacy space other than for the Water Convention Secretariat. These are complex and multi-sourced, and include provisions for: (i) Proactive Water Diplomacy for Peace, Prosperity and Partnership that in 2021–24 received EUR 0.393 million from the Centre for Peace Mediation of MFA and EUR 0.320 m divided equally between Ministry of Agriculture and Forestry and Ministry of Environment; and (ii) the Finnish Water Way: International Water Strategy of Finland for 2018–2030, which was allocated EUR 93 million for the three programme areas of Water for Sustainable Development (37%), Water for People (58%), and Water for Peace (5%), with 87% of the whole budget contributed by five ministries (MFA, Ministry of Agriculture and Forestry, Ministry of Environment, Ministry of Economic Affairs and Employment & Ministry of Social Affairs and Health), and the balance from other stakeholders. Annex 2 provides an overview of how these and other aspects of Finland's approach all fit together, and how Finnish arrangements compare with those of like-minded peer countries.

The function of Table 4 is primarily to convey a clear sense of different strategies within the sub-sector that relate to different sequences of cause and effect within the theory of change. These strategies are too distinct to always allow the meaningful aggregation of results into findings, some of which are therefore presented as only applicable to each strategy. But more importantly, each strategy contains at least one 'approach', meaning an element, method or tactic that can be used in various contexts, and it is the most effective of these approaches that are particularly sought in the findings as they are most likely to be useful going forward in various contexts, both within the Water as a Natural Resource sub-sector and beyond.

3.4 Engagement with private sector to date

The 2024 policy focus on encouraging and enabling private sector engagement was prefigured by significant activity in parts of the sub-sector. This was not the case, however, in the major bilateral WASH partner countries such as Nepal, where there were few opportunities for Finnish companies and little interest in exploring them in rural areas (see Annex 3, which however focuses on urban opportunities and is therefore more forward-looking). Rather, private sector engagement was concentrated elsewhere, in the Finnish Water Forum, Finnpartnership and blended finance portions of the sub-sector, where public leadership created real opportunities for private enterprise (see Finding 6).

The EU Global Gateway

The goal of the EU Global Gateway strategy is to improve economic and social development in developing countries by boosting smart, sustainable and secure solutions in the digital, energy and transport sectors, and by strengthening healthcare, education and research systems. The Global Gateway is delivered through a Team Europe approach, which brings together the EU and EU Member States with their financial and development institutions. Under the strategy, the EU aims to mobilise investments of up to EUR 300 billion by 2027, including from the private sector. The Global Gateway draws on the financial tools in the EU multi-annual financial framework 2021–2027, in particular the Neighbourhood, Development and International Cooperation Instrument-Global Europe, the Instrument for Pre-Accession Assistance III, the digital and international part of the Connecting Europe Facility, but also Interreg, InvestEU and Horizon Europe (the EU research and innovation programme). Finland encourages the participation of Finnish companies in Global Gateway joint projects, especially in the fields of digitalisation, education, climate and energy solutions.

Regarding the Water as a Natural Resource sub-sector, the Global Gateway founding document (EC & HRUFASP, 2021) notes that water security is fundamental to climate resilience, food systems and human development. The Gateway aims to use blended finance to scale WASH infrastructure, climate-resilient water supply and integrated water resources management at river-basin and utility levels, often accompanied by utility reform and performance-based approaches. In this area it operates: (i) through investment packages that combine European Investment Bank loans with EU investment grants and technical assistance for design, safeguards, and utility strengthening; (ii) through regional vehicles such as the Central Asia water-energy-climate Team Europe Initiative that recruit other international financial institutions and private actors; and (iii) through climate-resilient design standards and digitalisation initiatives that promote smart metering, non-revenue water reduction, and improved asset management. An example is the Gateway initiative that used several such mechanisms to deploy the São Tomé urban potable water network upgrade. Opportunities for Finnish companies to participate in Gateway projects lie particularly in areas of Finnish added value that include utility digitalisation and leak detection, water treatment and circular waste-water systems, mining water stewardship, and hydrometeorological monitoring linked to disaster risk reduction.

The Finnish Water Forum

The Forum was established in April 2009, alongside an international strategy for Finland's water sector (MFA et al., 2009), and brings together most institutional actors in the sector, about 130 in total (Government of Finland, 2023; FWF, 2019, 2022a, 2022b, 2025a, 2025b; Saarilehto, 2022;

interviews). These comprise five ministries, five research institutions, universities, non-governmental organisations and trade associations, and companies dealing with water-related technologies, consulting or design. Finnish companies make up about 80% of the Forum's members. Comparably to the roles of Mining Finland and Education Finland in their own sectors,[16] the Forum acts within the water sector as a mechanism to encourage and enable (e.g. by maximising the flow of knowledge and minimising transaction costs) the identification of opportunities to contribute profitably to sustainability and equity in the global water sector, and their exploitation by Finnish businesses. Finnpartnership (see below) especially reports an important open and intimate relationship, dialogue and collaboration with the Forum (interviews).

The Forum's objectives are: (i) to promote export business in the water sector (the sector being defined to include water supply, sanitation and water resource management, hence both WASH and Water as a Natural Resource); (ii) to increase the involvement of the private sector in development cooperation (and more generally in the wide-ranging promotion of international cooperation in the water sector and water exports); and (iii) to create new domestic and international partnerships (including international and mutual cooperation between educational and research institutions, organisations and water utilities).

These aims are advanced through a combination of: (i) networking (as a national network for its members and as part of international networks in the field, including thematic working groups, cooperation with other networks, participation at international events, and assembling consortia); (ii) influencing/advocacy (highlighting Finnish good practices and technology solutions in Finland and especially for actors in developing countries, often through participation at international events and marketing trips in cooperation with Business Finland/Team Finland); and (iii) communication (passing information about events and processes in the field to its members and partners through the Forum's web-site, in the newsletter and in separate messages on events, markets, funding, delegations and other topical issues).

The Forum is by all accounts an important success story. Multiple interviewees describe it in very positive terms, for example: (i) as providing a 'connecting matrix' for all the moving parts of the water sector, thus allowing them to share and collaborate on the practical and project levels; (ii) as opening minds to overseas business opportunities among Finnish corporations; and (iii) as having a very important role in encouraging and enabling participation by Finnish companies in emerging markets globally.

Finnpartnership

Finnpartnership is a government business partnership programme financed by MFA and managed under a 2022–27 outsourcing agreement with MFA by Finnfund, a development financier and impact investor. Its main services, which are free for companies and organisations in Finland and in developing countries listed by the OECD/Development Assistance Committee, are Business

16 See Mining Finland: https://miningfinland.com/; and Education Finland: https://www.educationfinland.fi/.

Partnership Support and Business-to-Business Matchmaking. According to evaluation team data, its business development grants (which it can make to private companies, universities or non-governmental organisations) totalled almost EUR 7.5 million among 98 recipients in 2016–2022, distributed among the energy sector (82% of recipients, 73% of funding), forestry sector (10% of recipients, 10% of funding), and water sector (6% of recipients, 12% of funding). All the water sector grants were in Africa and Asia and 5/6 were to private companies.[17] Two of these business development grants to private companies working in Asia involved a total of about EUR 1.0 million (details not available) to RiverRecycle Oy (launched 2019), which helped the company start operations in Indonesia and the Philippines. It works with local partners to recapture and process waste plastic into products for sale locally, and it has operated with marked success in five developing country markets to date (see Findings 1 and 6).

Blended finance

Blended finance is an attractive modality as it can have a two-fold impact: (a) on climate, gender or development, for example; and (b) on leverage, in that it can mobilise additional finance (typically with a 1:16 ratio), and the capital is often returned later for potential re-use. MFA Finland has been investing in several climate-related blended finance funds since 2017, including those established in partnership with the International Finance Corporation of the World Bank Group, the European Bank for Reconstruction and Development, the Inter-American Development Bank, and the Asian Development Bank. An investment of USD 10 million was made by the Finland-International Finance Corporation Blended Finance for Climate Program into one of the investment funds managed by Circulate Capital (Singapore, launched 2018). These invest in companies that are active in South-east Asia in the circular economy and particularly in plastic waste management. The initial investment leveraged USD 66 million from other investors into the same fund, which was later joined by others leading to strongly positive environmental and economic results (see Findings 1 and 6).

Team Finland

Part of MFA's role since its establishment in 1918 has been to help Finnish businesses progress overseas. The Team Finland Export Promotion Unit was set up in 2021 within the MFA Department for International Trade. In addition to producing knowledge resources on Finnish capacities in various sectors (e.g. water – Team Finland, 2022), it coordinates and services a global network of more than 90 missions, supported by embassy coordinators, thematic ambassadors, Team Finland Trade Counsellors and 440 Honorary Consuls (most of whom have a background or role in business). This structure will grow further when Business Finland with 38 locations around the world joins MFA in early 2026.

The Team Finland system is seen by Finnish businesses as a key source of useful contacts in target countries (from the evaluation's private sector engagement online survey below), but Team Finland interviewees stress two different factors as the most important reasons for failure in Finnish attempts to invest overseas. These can be summarised as 'homework not done properly', and a 'using a shotgun approach'. These are connected by over-confidence in believing that complex

17 Also from evaluation team data, none of Finnfund's own direct investments of almost EUR 280 million in 2015-2023 were in the water sector, but only in energy and forestry.

national and sectoral circumstances have been well-enough understood and, that being the case, that multiple initiatives can be begun safely and profitably in different locations. A contributing factor is that to plan for success in the Water as a Natural Resource sub-sector requires a level of ecological understanding that is not widespread within Finnish business or Team Finland. Correcting this is a potential opportunity for cost-effectively promoting private sector engagement in the sub-sector.

The private sector engagement online survey

The evaluation team conducted a survey of Finnish businesses and nearly one-third of respondents belonged to the water sector. All expressed confidence that their businesses could contribute to development impacts, in fields such as sustainable use of water resources, clean water and sanitation, and pollution reduction. All or almost all were willing to see Finnish development cooperation strengthen collaboration with the private sector, especially in terms of making use of companies' solutions (such as those developed with the EU's's Water Expertise Growth and Export Programme - see Finding 6 and Annex 4) and applying the Finnish Water Forum's model to other sectors. The Public Sector Investment Facility (PIF) was considered a useful model (and the first PIF in the water sector began its development through the 2022 Finnish Water Way action plan by MFA et al., 2023), but to be most useful it would need to be streamlined with shorter lead times, smaller-scale investments and simpler reporting requirements.

Market observations

Other observations relevant to actual and potential private sector engagement in the sub-sector are contained in Section 4.1 (Findings 1 and 6), Section 4.2 (Finding 11), Section 4.4 (Findings 16–19), Section 4.5 (Finding 20), Section 4.6 (Finding 21), and the Annex 3 case study on market conditions in the water sector in Nepal. These can be condensed into a twofold message.

- First, that very few opportunities for Finnish private sector engagement were directly associated with traditional ODA interventions in the sub-sector, mainly because their rural locations in least-developed and lower-middle income countries deterred Finnish companies that were used to selling into more technology-responsive markets.
- And second, that from about 2018 there began a significant shift on several fronts simultaneously: (i) a more holistic approach to promoting all aspects of the water sector by government; (ii) strong signals and incentives by government for private companies to collaborate with each other and with non-commercial knowledge holders in exploring export possibilities; (iii) energetic promotion by government of trade and investment with former partner countries (and others) that had achieved middle-income country status or that had particularly dynamic sectors that matched particular Finnish technological offerings (e.g. in meteorology), and (iv) the development of increasingly well-organised knowledge and service networks in the water sector, in Finland, in other EU member states, and under EU auspices, that had become adept at competitive bidding for projects globally.

The period from 2018 also coincided with an acceleration in the realisation that water shortages and other imbalances driven by climate change were becoming pervasive and intractable. This was largely due to the preparation of Nationally Determined Contributions documents by most countries, as required by the 2015 UNFCCC Paris Agreement. These required each nation to explore its

vulnerabilities to climate change and to set out its costed priorities for adapting to it and mitigating it. The process of preparing these documents is known to have contributed to national climate policy in many countries, by raising awareness, catalysing institutional change, improving political buy-in across governmental and non-governmental stakeholders, and laying the foundation for higher climate policy ambition in future, particularly for adaptation (Röser et al., 2020). Multiplied across many countries, this effect would have amplified the notion that countries like Finland, with a very convincing story to tell about water resources management, would have a growing role in helping the world to adapt to climate change. All these factors together add up to the Water as a Natural Resource sub-sector in 2025–30 being rich in opportunities for Finnish private sector engagement.

4 Findings

4.1 Results and impacts

Summary answer to EQ 1.1 and 1.2 – Results and impacts

There is good evidence for five pathways within the theory of change being followed as a result of Finnish support, all with strong overall effectiveness.

Enabling market-led waste plastic recovery and circular economy solutions. Finnish support contributed to preventing nearly 630,000 tonnes of waste plastic from entering tropical aquatic ecosystems in 2020–24 (RiverRecycle, Circulate Capital). The partners also built their capacity to prevent up to 13 million tonnes of plastic pollution by the early 2030s (SDG 14). This benefited local investment and public and ecosystem health, and demonstrated: (i) the creation of self-financing arrangements to reduce plastic pollution at scale; (ii) excellence in selecting business plans to address a key environmental problem; and (iii) the effective use of business development grants and catalytic blended finance (SDG 17).

Promoting participatory spatial planning and tenure clarification. Finnish support enabled participatory planning of 342 sq. km of land and sea in Zanzibar (ZAN-SDI 2016–19, BLUE-ZAN 2023–27), and digital land registration in 106,538 sq. km of Ethiopia (REILA 2011–2028). This made it easier for local and national actors to plan, and to avoid potential conflict over natural resources (SDG 16), thus promoting sustainable land and water management and ecosystem protection (SDG 14, SDG 15). It was potentially transformative, since tenure security enables resource owners: (i) to invest long-term in their crops, waterways and ecosystems, with the option of using nature-based solutions to solve environmental problems; and (ii) to negotiate agreements with others, such as on payments for ecosystem services. Where ecosystems are owned or managed collectively, tenure security also allows for community-based resource management.

Building capacity to deliver water, sanitation and hygiene services. Finnish support contributed to enhancing these services in some of the poorest regions of Ethiopia and Nepal (SDG 6, SDG 10). In Ethiopia, improved water supplies reached over 426,000 people while 150,000 school students as well as patients and staff at 138 rural health institutions gained new water and sanitation facilities (SDG 6) (COWASH 2011–25). In Nepal, well over a million people gained improved water and sanitation facilities, while more than 6.8 million lived in communities that achieved Open Defecation Free status (SDG 3), 14,000 gained access to arsenic-safe wells (SDG 3), livelihood gains reached 1.25 million (SDG 10), and health benefits included reduced waterborne disease, child mortality and improved nutrition from home gardens (SDG 3) (RWSSP-WN 2008–19, RVWRMP 2006–22, SUSWA 2021–27). Potentially transformative results included: (i) the embedding of Finnish-supported measures within Ethiopia's One WASH National Programme and Nepal's national WASH Management Information System; (ii) enduring institutional change at local government level, as policies,

procedures and capacity for service delivery were increased at 104 woredas in Ethiopia and 157 municipalities in Nepal (SDG 6, SDG 16); and (iii) that local people and their institutions became better able to analyse climate change risks, and take action to protect themselves with locally-appropriate solutions (SDG 13, SDG 16, SDG 17).

Influencing policies, laws, practices and awareness. Finnish support: (i) allowed the Mekong River Commission (2010–15) to set up systems for managing knowledge, disputes and environmental impacts (SDG 14, SDG 15), and to recruit and train 111 junior professionals from its member countries; (ii) enabled the Nile Basin Initiative (1997–2010, and related projects to 2017) to build an effective regional institution, while Finland also financed many of its initial operations (SDG 17); and (iii) strengthened systems for policy development and knowledge sharing at the UN Desertification Convention (UNCCD 2001–17) and UNECE Water Convention (since 2012), including by mobilising incremental funding (e.g. USD 23.8 million for drylands) and supporting their institutional processes, strategic assessments and action plans (SDG 13, SDG 14, SDG 15, SDG 16, SDG 17). Potentially transformative results included: (i) greatly enhanced capacity at two regional institutions and two multilateral frameworks that are key parts of the global sustainable development architecture; and (ii) the growth of systemic Finnish influence in promoting water as a foundation for both environmental sustainability and peace.

Encouraging, enabling, networking and incentivising Finnish private-sector actors. Finnish private-sector capacity expanded strongly after the Finnish Water Way in 2018, facilitated by clusters of expertise including the Finnish Water Forum which became a key platform for knowledge-sharing and consortium building. With MFA support of less than EUR 0.5 million annually, Forum members identified and acted upon EUR 777 million in viable commercial leads in 2020–24, with an active pipeline in 2025 (SDG 17). Potentially transformative results included: (i) that Finnish firms became better at identifying and acting on opportunities, often collaborating to secure projects in unfamiliar sub-sectors and locations (shown by their rapid response to the EU Water Expertise Growth and Export Programme in 2023–24); and (ii) that Finnish firms and consortia became more competitive in international cooperation and circular economy markets (SDG 12), aided by Finland's strong reputation for water management expertise and by rising political priority for climate change adaptation at local, national and global levels.

Cross-sectoral effects. The positive environmental results of Finnish interventions that protected ecosystems were likely amplified by cross-sectoral spillover effects. For example: (i) water interventions strengthened disaster risk reduction through water safety planning in Ethiopia and Nepal (COWASH, SUSWA) (SDG 13); and (ii) forestry interventions enhanced water security by protecting natural forests and improving forest cover in Lao PDR, Tanzania and Vietnam (see Forests, Ecosystems and Biodiversity report) (SDG 13).

'Do no harm'. Negative or unintended effects were rare, and unexpected positive impacts included increased confidence and political participation among women in Nepal (RWS-SP-WN, RVWRMP) (SDG 5).

Beneficiaries of Finnish support. Rural households gained improved water and livelihood security (SDG 3, SDG 5, SDG 6), local and national governments and river-basin organisations gained capacity (SDG 16, SDG 17), and Finnish companies gained competitiveness and commercial opportunities (SDG 12).

Contextual factors. Needs and opportunities in various contexts were shaped by factors such as Nepal's federalisation process (from 2015), Ethiopia's national WASH programme (from 2013), and rapid hydropower expansion in the Mekong Basin (from 2005). The ability of Finland's cooperation professionals to adapt to these, and to combine technical expertise with diplomacy, contributed strongly to positive outcomes (SDG 13, SDG 15).

Finding 1. Finnish support contributed to preventing nearly 630,000 tonnes of plastic from entering tropical aquatic ecosystems in 2020–24, while simultaneously strengthening market capacity and credibility for circular economy solutions.

Finnish support contributed to protecting environmental systems (long-range result 1) by addressing the urgent threat of plastic pollution in aquatic ecosystems. In contexts of high plastic leakage rates and weak waste management, Finnish support enabled market-based and participatory mechanisms that channelled ecological threats into opportunities for innovation and sustainable solutions. Through Finnpartnership support to RiverRecycle Oy and blended finance investments in Circulate Capital, Finland helped prevent nearly 630,000 tonnes of waste plastic from entering tropical rivers and seas (Circulate Capital, 2024, 2025a; RiverRecycle, 2025a, 2025b). These interventions not only delivered concrete outcomes in terms of reduced environmental stress but also strengthened the capacity of Finnish private sector actors to expand sustainable solutions (interviews; see Finding 6 for further details on Finnish private sector engagement).

Healthy environmental systems underpin biodiversity, climate regulation, and human wellbeing, yet they are under mounting pressure from human activity. Plastic waste exemplifies this challenge: of the 300 million tonnes generated annually, a significant proportion enters rivers and seas (Geyer et al., 2017; Meijer et al., 2021; UNEP, 2021, 2025; Plastics Europe, 2024), where it damages ecosystems and releases toxic breakdown products including micro and nano particles which are now found in the tissues of all living creatures, including all humans (Leslie *et al*., 2022; Dong *et al.*, 2023; Pinto-Rodrigues, 2023; Roslan *et al*., 2024; Thrift *et al*., 2025). Waste plastic also aggravates flood risk in urban areas by blocking drainage channels (Tearfund and Resource Futures, 2023). These harmful effects have led to efforts to negotiate an international plastics treaty to try to head off an expected tripling of plastic waste pollution by 2040 (UNEA, 2022; UN, 2025).

Finnish support on tackling plastic pollution in aquatic ecosystems combined market-creation instruments with private-sector partnerships. Finnpartnership grants to RiverRecycle Oy enabled the company to establish operations in Indonesia and the Philippines – two of the world's highest plastic-leakage countries – and subsequently expand to India, Ghana and Bangladesh (RiverRecycle, 2025a, 2025b; interviews). By intercepting river-borne plastic and processing it into marketable products such as construction boards and pyrolysis fuel, RiverRecycle demonstrated both environmental and commercial feasibility (interviews). With only about one million euros in seed funding, the company expanded its recovery operations twenty-fold between 2020 and 2024. It also recorded annual revenue growth above 20 per cent and attracted additional financing that made ambitious expansion plans realistic, including the diversion of 3 million tonnes of plastic waste by the mid-2030s (Finnpartnership, 2025; RiverRecycle, 2025c). In parallel, Finland's blended finance investment into Circulate Capital played a catalytic role in mobilising large-scale capital for circular economy businesses. An initial USD 10 million commitment in 2018 unlocked USD 66 million from other investors, and by 2024 the Circulate platform had channelled nearly USD 300 million into 21 companies, preventing an estimated 622,000 tonnes of plastic waste from reaching rivers and seas while avoiding a comparable volume of greenhouse gas emissions, with

expected impact including the diversion of 10 million tonnes of plastic waste by 2030 (Circulate Capital, 2024, 2025b; interviews).

The influence of Finnish support extended beyond project sites. The Finland-International Finance Corporation partnership enhanced the credibility of circular economy financing in Asia, with Circulate Capital becoming a recognised platform for plastic-pollution mitigation and policy influence (Circulate Initiative, 2024). RiverRecycle, starting from pilot-stage support, positioned Finnish expertise within global plastic-recovery markets. However, outcomes depended on Finland's catalytic use of relatively small but flexible finance in contexts where other donors and investors were risk-averse. Without the International Finance Corporation partnership and private co-investors, the scale of plastic recovery achieved and anticipated would likely not have been possible.

The cases considered here are not isolated ones within MFA's global programme, since on plastic waste management, other MFA-supported examples include: (i) support for the Partnership for Action on Green Economy under the United Nations' Green Economy Initiative (2016–20; UNEP, 2023); (ii) bilateral projects in Nepal (Strengthening of Environmental Administration at the Local Level, 2001–14) and Vietnam (Binh Duong Solid Waste Treatment Plant, 2011–18), both of which included support actions to phase out the use of non-biodegradable plastic bags (Impact, 2016; FCG, 2022a); and (iii) support for the Nature Guard Plastic Waste Recycling Initiative in Zambia (2015–19), which had an unexpected livelihood impact because as more people became aware of the value of plastic waste, women started their own plastic waste recycling services and began selling directly to Chinese companies in Lusaka (FCG, 2020).

Taken together, these cases show Finland's strong performance in delivering both measurable environmental results and building systemic capacity for market-led plastic recovery and circular solutions. Finnish support led to improved knowledge of viable business models (short-range results 1 and 2), enabled investable partnerships and financing platforms (medium-range result 1 and 2), and ultimately reduced environmental pressures on aquatic ecosystems (long-range result 1). By employing small-scale seed funding in one intervention and catalytic blended finance in another, Finland contributed to immediate environmental outcomes while also demonstrating options for other actors to use in the future.

Finding 2. Finnish support contributed to strengthening cooperative governance systems through participatory spatial planning in Zanzibar and tenure security reforms in Ethiopia, with spillover benefits for ecosystems and local economies.

Finnish support contributed to reducing conflict risks over renewable natural resources in 342 sq. km of the Zanzibar archipelago and improved land tenure security in Ethiopia. In contexts where weak tenure or poorly governed access to fisheries, forests, land, and freshwater risked intensifying conflict, interventions such as ZAN-SDI and BLUE-ZAN in Zanzibar and Responsible and Innovative Land Administration (REILA) in Ethiopia clarified rights and responsibilities and embedded local communities in decision-making. This rebalanced relations between less influential actors (households, non-governmental organisations) and more influential ones (government agencies, private developers), tending to produce more equitable and environmentally sustainable outcomes (Caldecott et al., 2020; Syke, 2023, 2024; Remme et al., 2025).

Inclusive governance of renewable natural resources matters because conflict often arises where access is contested and institutions are weak. In these contexts, by clarifying rights and responsibilities across ecological boundaries and therefore increasing participatory knowledge (short-range results 1 to 4), Finnish support enabled and achieved medium-range results in terms of institutional

improvements (medium-range result 1), agreements on land and water use (medium-range result 3), and climate adaptation (medium-range result 4), leading to cooperative systems that reduce conflict risks (long-range result 3). These cooperative gains produced measurable environmental benefits (healthier fisheries, protected coastal ecosystems) and economic improvements (tourism revenues, sustainable harvests) consistent with long-range results 1 and 4. Finnish support proved effective where community organisations were already active and government actors receptive. Their long-term durability, however, may be vulnerable to shifts in political will, resourcing, or competing land-use pressures.

In Zanzibar, ZAN-SDI introduced participatory mapping of marine and coastal ecosystems into government spatial plans across 140 sq. km in North-East Unguja, empowering local communities and non-governmental organisations to negotiate access and management rules alongside state authorities (Caldecott et al., 2020). Thus, these interventions contributed to establishing community-managed no-take zones for tourism and seasonal fishing closures, which both improved ecosystem outcomes and generated new income streams (interviews). The follow-up BLUE-ZAN intervention consolidated these results by strengthening government capacity for marine governance, establishing monitoring and data systems, and expanding participatory assessments to wider coastal areas in Chwaka Bay (52 sq. km) and Menai Bay (150 sq. km) (Syke, 2023, 2024). In addition, World Bank investments were conditioned on the government spatial plans produced with support from the Finnish Environment Institute (Syke), demonstrating systemic leverage (Caldecott et al., 2020; Syke, 2023). While Finland's direct financial contribution was modest and geographically limited, the approaches piloted exerted influence on larger government and donor frameworks, showing strong leverage relative to the initial investment size.

In Ethiopia, the REILA programme enhanced tenure security through the creation of a digital rural land cadastre, the National Rural Land Administration Information System (NRLAIS), clarifying boundaries across catchments, aquifers, wetlands and agricultural land. By June 2023, NRLAIS had securely registered 106,538 sq. km or almost a tenth of Ethiopia's total land area (MFA & MoA, 2024). By reducing disputes over land and water and embedding resource rights into law and administration, REILA helped enable local and national actors to cooperate more effectively in sustainable land and water management, an approach that resonates with international experience on how to build momentum for ecosystem and biodiversity conservation, sustainability and resilience. This experience points to the central importance of tenure security in achieving environmental sustainability, as it enables such key approaches as nature-based solutions by land owners (see Box 1), payment for ecosystem services arrangements between those who own catchment ecosystems and those who use their services (see Box 2), as well as community-based resource management where ecosystems are owned or managed collectively (see Box 3). None of these are possible without clarity on roles, rights and responsibilities.

Box 1 Nature-based solutions

Nature-based solutions are increasingly recognised as effective interventions for strengthening climate resilience, enhancing ecosystem services and biodiversity, and increasing environmental security (Collins et al., 2025). They are actions to protect, sustainably manage, and restore natural and modified ecosystems that address challenges to society effectively and adaptively, simultaneously providing human well-being and biodiversity benefits (IUCN, 2020; UNEP, 2022; Speirs et al., 2025). They can be applied across different spatial scales and landscapes, ranging from upstream forests to coastal or urban areas. Such interventions, for example those to protect or restore forests, floodplains, wetlands or coral reefs, can help bolster biodiversity and make ecosystems and societies more resilient to climate change. Thus, restoring forests can increase soil retention, reducing erosion and landslides and improve water quality. Hybrid interventions, such as combining mangroves with engineered structures like concrete seawalls, offer solutions that can achieve optimal disaster risk and storm protection by balancing the durability of hard infrastructure with the adaptability and long-term resilience of nature-based solutions.

Box 2 Payment for ecosystem services

During the 1980s, the deteriorating quality of drinking water in New York City prompted the city to offer inhabitants of the Catskill Mountains an arrangement by which, in essence, they would be paid to maintain the ecological integrity of the water catchment. Once this system was in place, its high cost-effectiveness inspired many other such 'payment for ecosystem services' arrangements worldwide. Early movers included Costa Rica, where a national payments for ecosystem services system financed by a tax on fossil fuels helped reverse high deforestation rates and reforest the country (Umaña, 2024), and France, where the approach was used to safeguard a major water bottling industry (Perrot-Maître, 2006). Within two decades there were some 550 active programmes globally, involving USD 36–42 billion in annual transactions (Salzman et al., 2018). It was soon confirmed that, with well-crafted incentives and institutions, such arrangements have positive effects on motivating the protection and restoration of ecosystems while benefiting businesses, industries and population centres (IPBES, 2019; Wunder et al., 2020). But it was also learned that, as with shared waters across international boundaries, their negotiation between subnational regions demands diplomatic effort (Keskinen et al., 2021), and that this must be informed by detailed knowledge of local ecological, social and economic systems (Dextre et al., 2022; Jia et al., 2023). This work is needed to overcome reluctance to pay for ecosystem services, which have often been seen as free goods by their users, and to offset power imbalances of historical and cultural origin between urban and rural centres (Sumit et al., 2020). Most people now live in towns and cities, many of them vulnerable to the consequences of harm to upstream ecosystems, so there is great scope for facilitating effective payments for ecosystem services arrangements worldwide.

Box 3 Community-based resource management

The central ideas of community-based resource management are: (i) that communities local to ecosystems can supervise their use more easily than people based far away; and (ii) that if those communities receive benefits in a continuing way from their local ecosystems they will be motivated to look after them. This approach is applicable to any kind of renewable natural resource, including the full range of products and processes that are available from natural ecosystems (Kiss, 1990; Pye-Smith & Feyerabend, 1994; Caldecott, 2005; Nelson, 2010; Mbile, 2025). These can range from timber and non-timber forest products to fish, bushmeat, medicines, foodstuffs, and ecotourism and educational business opportunities, as well as environmental security and payments for carbon storage services (Caldecott, 2017). So community-based resource management is a key part of the environmental management toolkit, but to work it often requires enabling policy and legislation as well as capacity building for all stakeholders. When applied to forests, for example, it usually involves a bundle of actions that can include strengthening local tenure security, supporting participatory forest planning and inventory, building the capacity of community institutions, facilitating cooperation between communities and government foresters, and developing wood and non-timber forest products value chains for local benefit.

Similar approaches are being tested in Nepal through the LACC intervention, where participatory research and locally owned spatial planning aim to strengthen climate-resilient livelihoods and ecosystem management. Though results are still emerging, the strategy reflects the same theory of change logic: participatory knowledge (short-range results 1, 3 and 4) enables institutional improvements (medium-range result 1), agreements on land and water use (medium-range result 3), and climate adaptation (medium-range result 4), leading to cooperative systems that reduce conflict risks (long-range result 3). In addition, within MFA's global programme, building community resilience to climate change is a key policy goal, with coastal zone projects in Vietnam, Brazil, India and Indonesia reflecting the same logic[18].

All things considered, Finnish support demonstrated a moderate performance in contributing to the reduction of conflict risks, with robust evidence appearing in the Zanzibar and Ethiopia examples, while other interventions are yet to prove their effectiveness.

Finding 3. Finnish support contributed to improving WASH service delivery for at least 2.5 million people and delivering additional health and livelihood benefits to at least another 8.4 million people in Nepal and Ethiopia.

WASH services comprise the delivery of fresh water reliably to domestic and institutional users, along with measures to ensure that the water supplied is uncontaminated by chemicals and sewage. They are usually the responsibility of public institutions and, in Finnish usage, are complemented by interventions on personal hygiene, community sanitation, and equitable access irrespective of gender, class, ethnicity, or disability. In contexts of unmet demand and weak state

18 Examples include: (i) Strengthening Communication Capacity for Better Climate Resilience in the Mekong River Delta (2022-23, in Vietnam); (ii) Strengthening of the National Commission for the Coastal and Marine Extractive Reserves in Bahia state (2014-16, in Brazil); (iii) Campaign for Protection of Environment and Livelihood Resources of the Coastal Community in Tamil Nadu, and Protecting the Coastal Ecosystems of the Gulf of Mannar and Ensuring the Traditional Rights of Fishing Communities of Ramanathapuram and Tuticorin in Tamil Nadu (both 2014-16, in India); and (iv) Protect the Remaining Mangrove as Coastal Frontiers in West Kalimantan Province (2014-18), and Coastal Community, Mangrove Management and Livelihoods in Gorontalo province (2005-21, both in Indonesia).

capacity, Finland's long-term partnerships and focus on institution-building proved strongly effective, ensuring that service delivery mechanisms produced durable outcomes. WASH can also be linked to livelihoods and nutrition through horticulture and small-scale enterprises. Because unmet demand for WASH is so high in developing countries, the sector is a natural priority for ODA, and it can also attract a strong sense of local ownership and willingness to participate and support WASH interventions. This is clearly evident in the Finnish WASH interventions in Ethiopia and Nepal, where national/local government and communities contributed 62% of total expenditure under COWASH, and 37%, 43% and 39% respectively under RWSSP-WN, RVWRMP and SUSWA.

Aided by this strong local support, Finnish-supported WASH interventions achieved substantial service delivery outcomes in some of the most remote and poorest regions of Nepal and Ethiopia. In Nepal, RWSSP-WN, RVWRMP, and SUSWA contributed to over 1.02 million people gaining improved water facilities, over 1.01 million gaining improved sanitation facilities, and more than 6.8 million living in communities that achieved Open Defecation Free status. These interventions also provided arsenic-safe wells for more than 14,000 people and livelihood improvements for 1.25 million (Toft et al., 2022; Mikkola et al., 2024; interviews). In Ethiopia, COWASH contributed to improved water supplies reaching over 426,000 people through 1,655 built or rehabilitated schemes, while 227 schools (with 150,000 students) and 138 rural health institutions benefitted from new water and sanitation facilities (Gossage et al., 2023). Beyond access, these services reduced the prevalence of waterborne disease, probably contributed to lower child mortality, and improved household nutrition through home garden productivity.

Other Finnish WASH interventions yielded more limited results, underscoring the importance of institutional sustainability. Results were strongest where Finland aligned with national reforms and co-financing (Nepal, Ethiopia). Where such enabling conditions were absent (Kenya, Vietnam), outcomes proved less sustainable, highlighting the importance of supportive political and institutional contexts. Thus, in Kenya, the J6P project expanded services to about 133,000 people by strengthening 31 county water utilities, but weak governance undermined their operation and maintenance (Colin et al., 2024). And in Vietnam, the WSPST project connected around 40,000 households to a functioning water supply and 9,300 to sewerage systems, but the sewerage component was poorly designed and performed inadequately (FCG, 2019a).

The stronger results in Nepal and Ethiopia were closely linked to a deliberate focus on institutional capacity building. Thus in Nepal: (i) national duty-bearers gained improved national WASH policies and knowledge needed to shape the design of other projects by government and other donors; while (ii) local government duty-bearers such as WASH Management Committees and WASH Management Units, and at community level Water User and Sanitation Committees and School Management Committees, gained increased capacity to plan and deliver WASH services and livelihood measures supported by strengthened policy frameworks (FCG, 2022b; RVWRMP, 2022; RWSSP-WN, 2019; Government of Nepal et al., 2022a, 2022b; SUSWA, 2022; Toft et al., 2022; interviews). And in Ethiopia: (i) federal duty-bearers included WASH units at multiple ministries, as well as the national WASH coordination structures, and their regional counterparts, and all gained from knowledge that influenced WASH policy development and execution; while (ii) local duty-bearers included WASH Committees, institutional WASH Committees, and WASH Committee associations and federations, and all gained assistance in building safe water supplies and/or latrines with handwashing, water storage and Menstrual Hygiene Management blocks (Gossage et al., 2023). This approach reflected the theory of change chain of results: strengthening the ability of public and private actors to deliver safely managed drinking water (short-range result 6) generated institutional improvements (medium-range result 1) and economic opportunities through small and medium-sized enterprises supported by new water systems (medium-range result 2). New and/or

more capable local government and community institutions established and strengthened by the WASH interventions are likely to be better able to analyse local climate change risks, to identify locally-appropriate solutions, and take action to protect their interests against them (long-range results 1 and 3).

This institutional focus translated into systemic influence. In Nepal, strengthened national WASH policies shaped donor programming (interviews). Integration with Ethiopia's One WASH National Programme (OWNP) and Nepal's WASH Management Information System embedded Finnish approaches into national systems (interviews). These linkages attracted co-financing from other donors (notably the EU in Nepal), enabled collaborations with government (e.g. the NRLAIS in Ethiopia), and in Nepal contributed to the implementation of the 2015 constitution (MFA & MoA, 2024; interviews). Finland's cooperation also built on earlier WASH engagements: in Vietnam through major investments in Hanoi and Haiphong before WSPST (FCG, 2019a), and in Ethiopia through earlier rural water programmes in Amhara and Benishangul-Gumuz (Yigezu et al., 2021). These linkages extended the reach and credibility of Finnish WASH support.

Cost-effectiveness evidence suggests that Finnish investments in Ethiopia and Nepal were in line with global practice. From desk studies, these interventions involved total support amounting to EUR 113 million from MFA, EUR 30 million from the EU, and EUR 127 million from government and in the form of community contributions. This enabled WASH services to be provided to 2.5 million people over 15 years, which equates to EUR 3.8/person-year from ODA and EUR 3.4/person-year from counterparts. This average amount is only slightly higher than global benchmarks (Chaitkin et al., 2022). While Finland contributed less than half of the financial volume, its role was pivotal in piloting approaches that were later scaled-up nationally. The long-term nature of Finnish cooperation also created intangible benefits such as trust, institutional memory, and collaborative networks that cannot easily be monetised.

Finally, to summarise evidence from Toft et al. (2022), Gossage et al. (2023), Mikkola et al. (2024) and several interviews, Finnish WASH interventions embedded gender equity, disability, and social inclusion in line with the human rights-based approach. In Nepal, women and girls benefitted from reduced time fetching water, safer sanitation, increased school attendance, and a decline in menstruation-related discrimination. Participation in Water User and Sanitation Committees also increased women's decision-making power. In Ethiopia, women took leadership roles in WASH Committees, small and medium-sized enterprises, and savings groups, while gender equity, disabled and social inclusion strategies, training, and monitoring mechanisms created potential for gender-transformative change and early steps on disability inclusion.

Finding 4. Finnish-supported WASH interventions were only moderately environmentally sustainable because they were unable to include adequate measures to address declining water availability due to climate and ecosystem change.

Finnish-supported WASH interventions achieved only moderate levels of environmental sustainability. While they contributed to improved WASH services and thereby human health and well-being at scale (see Finding 3), the sustainability of these results was undermined by declining water availability. They contained only limited resilience measures to address water supply and availability issues (short-range result 5), leaving core achievements vulnerable to climate change and ecosystem pressures.

Evidence from Nepal and Ethiopia illustrates the challenge (Toft et al., 2022; Gossage et al., 2023; Mikkola et al., 2024; interviews). In the rural areas targeted by RWSSP-WN, RVWRMP, and

SUSWA in Nepal, communities experienced drying springs and increasingly erratic rainfall. Later project phases attempted to respond through measures such as soil conservation, tree-planting, aquifer recharge ponds, climate-resilient infrastructure, and integration of climate change adaptation and disaster risk reduction into drinking water schemes and livelihoods. Similarly, COWASH in Ethiopia and SUSWA in Nepal introduced Water Safety Planning to improve water quality and resilience. Despite these efforts, evaluators consistently noted worsening year-by-year water scarcity and environmental vulnerability, and expressed doubts that the projects were responding or could respond at adequate scale (Toft et al., 2022; Gossage et al., 2023; Mikkola et al., 2024; interviews). Similarly, in Kenya, the J6P intervention supported some erosion control and tree planting in water catchments but did not otherwise seek to contribute to climate change resilience (Colin et al., 2024), even though this is recognised as a key challenge for the whole water sector in Kenya (KMD, 2024; WMO, 2024).

Thus the achievements of Finnish WASH interventions remained contingent on broader hydrological and climatic factors that were largely beyond their control although their effects might have been mitigated. These experiences underline that, across contexts, Finnish WASH interventions placed more emphasis on social service delivery (short-range result 6) and institutional capacity building (medium-range result 1) than on ecological resilience and sustainable resource management (medium-range result 5). Although participatory action research (short-range result 3) helped projects adapt during implementation, especially in RVWRMP, it could not fully compensate for strategic weaknesses in original design.

Global analysis reinforces this picture. Climate change, ecosystem degradation, and biodiversity loss have been recognised as serious risks for human development since the Rio treaties of 1992–1996 (Convention on Biological Diversity, UNFCCC, UNCCD). However, slow implementation and delayed action, particularly under the UNFCCC, meant that the full implications of systemic risks to Earth systems and their social and economic consequences only became widely understood after the Paris Agreement (2015) and increasingly in the 2020s. Most of Finland's major WASH interventions were designed before this shift, limiting the extent to which they could anticipate climate risks. More generally, MFA (2022, p. 50) notes that climate change, environmental degradation, and biodiversity loss increasingly threaten the achievement of the SDGs. WMO et al. (2023) similarly show how climate change undermines progress across all SDGs. As Savage et al. (2023, p. 80) observe, Finland is not widely regarded as innovative in climate approaches or financing instruments, but stronger in mainstreaming social priorities such as gender equality and human rights. This aligns with the finding here that Finnish WASH interventions were conceived primarily as social rather than environmental in nature.

In conclusion, the Finnish WASH interventions delivered large-scale social and health benefits but their environmental sustainability was limited since they remained vulnerable to declining water availability and broader environmental change. Given the pervasive nature of such biophysical stresses it is questionable whether this vulnerability could have been resolved completely, even had there been much stronger integration of climate resilience and ecological resource management from the start. In any case, the environmental sustainability of these interventions was assessed as moderate rather than weak because: (i) they did undertake local catchment restoration and disaster risk reduction efforts; and (ii) the local government and community institutions that they established and strengthened were capable of more strategic participatory actions going forward. Local people were well aware of the threats, able to analyse them and identify locally-appropriate solutions, and once empowered were able to take action to protect their interests to the extent possible.

Finding 5. Finnish support strongly built capacity to influence policies, laws, practices and awareness on Water as a Natural Resource issues within international organisations and frameworks.

Finnish support contributed to institutional change at the international level, particularly within international organisations and multilateral frameworks[19]. Interventions with the Mekong River Commission (FCG, 2019b; Geheb et al., 2021), the Nile Basin Initiative (Yigezu et al., 2021; Niras, 2013), the UNCCD (Peltonen, 2016), and the UNECE Water Convention (De Man & Vikman, 2021) enabled these organisations to integrate scientific knowledge, stakeholder participation and inclusive governance into their core practices. With a history of transboundary cooperation (Vikman & De Man, 2021), Finland also fostered new platforms such as the Water for Peace network (Rautavaara, 2025; interviews), while also encouraging Finnish private-sector actors to engage with Water as a Natural Resource solutions (see Finding 6). Together, these contributions strengthened institutional capacity and cooperation, creating systemic conditions for more sustainable and conflict-sensitive water and natural resource management.

Healthy ecosystems and water systems can only be protected at scale if the institutions governing them are capable, legitimate, and inclusive. International organisations play a pivotal role in shaping policies, laws, and practices that affect millions of people and ecosystems. Finland's support mattered because it strengthened these organisations at critical junctures, for example when hydropower expansion threatened the Mekong Basin, when fragile cooperation in the Nile Basin required institutionalisation, when dryland degradation became a global priority, and when transboundary water management needed a durable legal framework. In these contexts, Finland's strategy of combining technical knowledge with inclusive governance translated into durable institutional outcomes that could not have been achieved by individual projects alone. The pathways to these outcomes reflect the theory of change. They began with the generation of scientific knowledge on ecosystems and water systems (short-range result 1), the clarification of use rights and duties (short-range result 2), and the integration of climate considerations into planning (short-range result 3). These short-range results enabled the creation of new catchment-wide agreements and institutional mechanisms for cooperation across boundaries (medium-range result 3), strengthened governance capacity within ministries, basin organisations and multilateral conventions (medium-range result 1), and, in some cases, created economic incentives for cooperation through joint projects (medium-range result 2). Together, these institutional changes contributed to the long-range result of protecting environmental systems and reducing risks of conflict (long-range result 1).

In the Mekong Basin, Finnish support helped the Mekong River Commission strengthen its knowledge base and credibility at a time of rapid hydropower expansion (FCG, 2019b; Geheb et al., 2021). Through the Information and Knowledge Management Programme and the Initiative on Sustainable Hydropower, Finland's support helped the Commission promote better-informed decisions and strengthen civil society participation, while a third approach established the Junior Riparian Professionals programme that still trains future water leaders (MRC, 2024a). By the time Finland disengaged in 2015, the Mekong River Commission was strong enough to secure multi-donor basket funding and remains a key actor for environmental sustainability in the region (MRC, 2024b).

In the Nile Basin, Finland co-financed the creation of Eastern Nile Technical Regional Office and Eastern Nile Subsidiary Action Program (ENSAP) under the Nile Basin Initiative, supporting

19 Evidence for institutional change at national and local levels is covered in Findings 1, 2 and 3, while the strengthening of private sector capacity is discussed in Finding 6.

political dialogue through the Eastern Nile Council of Ministers and practical cooperation on water resources projects in Ethiopia, Sudan and the wider basin (Yigezu et al., 2021). This dual strategy contributed to replacing tensions with cooperation, strengthened regional institutions, and embedded a culture of basin-wide thinking that has endured beyond Finland's withdrawal in 2010 (Niras, 2013; ENWMP, 2015).

With the UNCCD, Finland sustained a 16-year partnership (2001–17) that supported policy reforms, monitoring and evaluation systems, gender mainstreaming, small and medium-sized enterprise financing and knowledge partnerships. Successive evaluations confirmed that Finnish contributions strengthened government and local capacities to reduce land degradation and build resilience, while also mobilising additional funding (Peltonen, 2016). High-level visibility was reflected in the appointment of former President Tarja Halonen as a UNCCD Land Ambassador (UNCCD, 2025).

Building on its long tradition of transboundary water agreements, Finland played a key role in shaping the UNECE Water Convention, including: (i) by chairing its Task Force on the Water-Food-Energy-Ecosystems Nexus since 2012; (ii) by participating in its working groups on integrated water resource management and monitoring and assessment, and as a long-standing member of its coordinating bureau; (iii) by supporting work on the Water and Health protocol and adaptation to climate change, and acting as the primary donor to the Environment and Security Initiative (a partnership of three UN agencies and two regional security institutions, including the North Atlantic Treaty Organization which Finland joined in 2023); (iv) by supporting assessments of surface, ground and transboundary waters in Europe and Central Asia; and (v) through twinning arrangements, such as Finland's support to Namibia's accession, which demonstrated the practical value of this work and triggered interest from other countries (De Man et al., 2021; Vikman & De Man, 2021; interviews).

In all these ways, Finland played a strong role in supporting the Convention's evolution into a global platform for transboundary water cooperation, alongside other member states and partners, thus paving the way for Finland's water diplomacy efforts. These include a broad role for the Special Envoy for Water, as well as the Water for Peace network, which links around 150 actors from non-governmental organisations, companies and agencies. This network provides flexible capacity to engage in fragile contexts, support EU Special Representatives, and maintain dialogue even with difficult or proscribed parties (Rautavaara, 2025; interviews). These efforts illustrate Finland's broader ambition to shape global water governance, combining technical expertise, peacebuilding, and diplomacy.

Taken together, these interventions demonstrate how Finnish support contributed to sustainable institutional change across levels. By embedding scientific evidence, inclusive participation and cooperative approaches into the practices of key international organisations and agreements, Finland ensured that Water as a Natural Resource policies and programmes were more legitimate, effective and durable. The weight of Finland's contribution was often small in financial terms but influential through technical expertise, diplomacy, and long-term continuity. Increased international capacity indirectly supported national and subnational efforts relevant to WASH and water-resources management by providing standards, evidence and cooperation mechanisms. The long-term survival and credibility of institutions such as the Mekong River Commission and Nile Basin Initiative, and frameworks such as the UNCCD and UNECE Water Convention testify to the systemic influence of Finnish support, while the Water for Peace network illustrates Finland's continued role in promoting water as a foundation for both environmental sustainability and peace. These strong influences were realised because Finland engaged at critical junctures when institutions were receptive to reform. Over the longer term, however, outcomes ultimately depend on other donors maintaining funding and on member states' continued willingness to cooperate.

Finding 6. Finnish support contributed to enhancing the capacity of Finnish private-sector companies to identify and exploit opportunities to deliver effective solutions in the sub-sector.

Finnish support contributed to enhancing the ability of private-sector actors in Finland to identify and exploit opportunities in the Water as a Natural Resource field. Once policy constraints eased after 2018, the mechanism of forum-based networking enabled Finnish companies to convert intelligence into viable commercial ventures. Through the establishment of the Finnish Water Forum in 2009 and the subsequent development of the 2018 Finnish Water Way, public and private institutions were encouraged to share information in real time, form ad hoc consortia, and compete effectively in international markets. This contributed to a marked increase in the agility and competitiveness of Finnish companies in responding to global Water as a Natural Resource opportunities. This mattered because global priorities are shifting towards mobilising private investment to supplement ODA and philanthropic funding in order to meet the SDGs and confront the climate and nature crisis.

The Finnish Water Forum became a central platform for consortium building and opportunity development. Between 2020 and 2024, its members identified and acted upon EUR 777 million in viable commercial leads, about half of them linked to development cooperation markets (FWF, 2025b), while there was a very active 2025 pipeline[20]. This scale of opportunities was striking relative to the modest levels of MFA support to the Forum, which amounted to less than EUR 0.5 million annually. Its activities helped Finnish companies take part in EU-funded groundwater recharge and water treatment projects in Ukraine, as well as new project concepts in Nepal and South Africa. These results show that Finnish support helped create conditions for private actors to convert international partnerships into concrete commercial ventures, often in synergy with development cooperation priorities (FWF, 2025a, 2025b; interviews).

The EU's Water Expertise Growth and Export Programme, developed in the Finnish Water Way's 2022 action plan (MFA et al., 2023), allocated EUR 3.2 million in 2023 to 21 research and development projects (Annex 4). Around 70% of participants were private Finnish companies, complemented by universities, the Forum itself, and non-profits. Interviews confirmed: (i) that this funding had a welcome focus on commercialisation rather than being limited to research; (ii) that most of these projects would not have been undertaken without it; (iii) that almost all the projects were done well and met their technical targets; (iv) that there have been strong early signs of commercial potential for many projects, and ongoing discussions with potential customers; and (v) that up to five years are often needed to develop and commercialise new solutions, so the scarcity of concrete commercial results after only a year or so is of little concern. The range of projects – covering inter alia groundwater recharge, mine water treatment, digital water management, and smart water solutions – illustrated both the breadth of technical expertise and the strong capacity for consortium formation that Finnish companies had built since the Forum's establishment (MFA et al., 2023; FWF, 2025a).

These various successes imply contributions to stronger economic systems (long-range result 4), which can be traced back through the systematic strengthening of the institutional matrix of the Finnish water sector and especially its private actors (medium-range result 1 and medium-range result 2). Some of the latter were involved in achieving short-range results through various individual

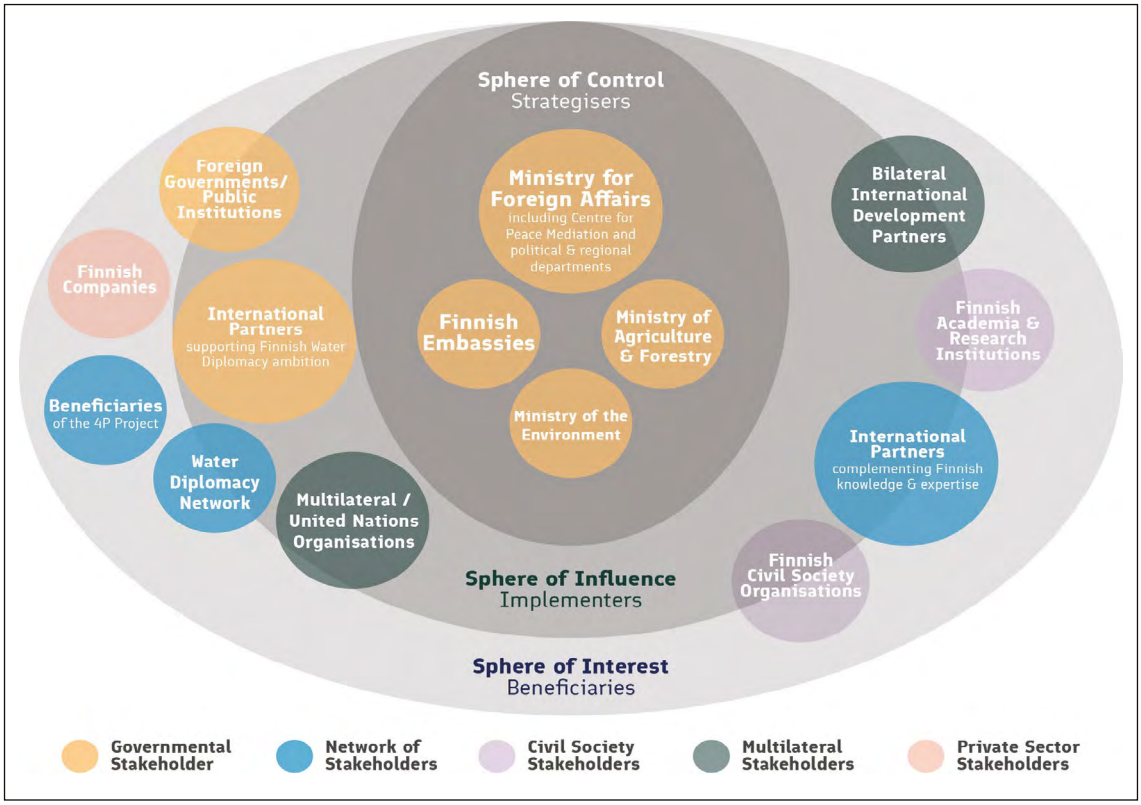
20 The 2025 pipeline of the Finnish Water Forum membership in multiple countries included projects that, being focused on water security, ground-water recharge, digital solutions, water restoration, dam safety, education and training, smart water solutions, and water-wise food systems, were particularly relevant (FWF, 2025a, 2025b).

projects, and the public actors (ministries, universities, research institutions, and especially the charity WaterFinns) would have been involved across all of them (short-range results 1–6).

Over time, this support has also fostered a cultural shift in the sector. Finnish companies have become increasingly agile in identifying and acting on opportunities, often forming consortia quickly to secure projects in unfamiliar sub-sectors and locations. This shift has reached a point where few significant international opportunities in the Water as a Natural Resource field are likely to be missed. In contexts of global demand for water solutions, consortium-building turned dispersed expertise into competitive advantage.

Taken together, these results show how Finnish support has upgraded the capacity of companies to act as agile, competitive providers of water sector solutions. This trajectory is consistent with Finland's broader "path on water," linking the Finnish Water Way and Forum with the UNECE Water Convention, Water for Peace network, WaterFinns, Special Envoy for Water, WASH and Water as a Natural Resource cooperation initiatives which all share stakeholders (many of them represented in Figure 8). Ultimately, this encompassing approach ties to the circular economy strategy, illustrating how private-sector engagement reinforces wider national and international synergies. Finnish performance in strengthening private-sector capacity is assessed as very strong, although the process of converting consortium bids and research and development activities into profits and taxes is (and always will be) on-going.

Figure 8 Key stakeholders in overall Finnish water strategy



Source: De Man et al. (2021, p. 12)

Finding 7. Finnish interventions were generally well-designed and well-implemented, increasing the likelihood that benefits were realised as intended, while unexpected negative effects were rare and limited in effect.

Finnish interventions were typically effective at directing benefits to their intended stakeholders, while also anticipating and capturing many of the potential positive side effects. This mattered because in complex social and ecological systems, interventions often generate unintended consequences. The ability of Finnish projects to avoid major perverse incentives or negative spillovers strengthened both the durability of their results and the trust of stakeholders in continuing cooperation.

In the private-sector initiatives supported by Finnpartnership and blended finance (RiverRecycle and Circulate Capital), benefits extended as planned to cleaner aquatic ecosystems and partner businesses, city authorities and local communities (see Finding 1), with additional positive effects such as employment creation (RiverRecycle, 2025a, 2025b; Circulate Capital, 2024, 2025a, 2025b; interviews). In Zanzibar, participatory planning under ZAN-SDI and BLUE-ZAN built government capacity and fostered collaboration with communities, non-governmental organisations and universities; unexpected but beneficial outcomes included new training opportunities in information and communication technologies for young women and the World Bank's decision to condition tourism investments on ZAN-SDI spatial plans (Caldecott et al., 2020; Syke, 2023, 2024). In Nepal, WASH interventions produced broader than expected social effects: women gained confidence to run for local councils and marginalised groups strengthened their self-esteem (Toft et al., 2022; Mikkola et al., 2024). Only a few negative issues were reported, such as difficulties linked to affirmative action appointments in Nepal (HVC, 2016), and new water system installations biased towards wealthier areas in small towns in Vietnam (FCG, 2019a).

At the international level, beneficiaries also received the types of advantages that Finnish support was designed to deliver. In the Nile Basin, governments and regional institutions gained capacity for cooperative water catchment management, while in the Mekong Basin member states benefited from stronger evidence bases, civil society inclusion, and training for future water leaders (Niras, 2013; Geheb et al., 2021; Mekong River Commission, 2024a). Under the UNECE Water Convention, both national governments and multilateral agencies benefited from improved frameworks and guidelines, while global stakeholders gained from strengthened environmental security and water diplomacy (De Man et al., 2021; Vikman & De Man, 2021; interviews).

Overall, the evidence shows that Finnish interventions generally distributed benefits in line with their design, while unexpected effects – when they occurred – were often positive or adaptive. This capacity to anticipate outcomes and limit risks reinforced the credibility of Finnish cooperation and increased the likelihood that its interventions contributed to durable, widely-accepted results. This reflects a strong performance in ensuring benefits were realised as intended.

Finding 8. Finnish interventions were strongly influenced by contextual factors but generally adapted well to them, maximising the delivery of positive results.

Finnish interventions consistently showed an ability to respond to historical, cultural, political, and ecological contexts in ways that reinforced their effectiveness. This mattered because contextual dynamics – ranging from constitutional reforms to technological change – can reshape the opportunities and risks faced by development interventions. By adapting to such shifts, Finnish projects were better able to sustain stakeholder support, align with national priorities, and consolidate long-term influence. Finland's emphasis on partnership and flexibility tended to yield relevant and durable outcomes .

In the private-sector interventions (RiverRecycle and Circulate Capital), global trends in plastic production and waste created urgent demand and willingness to pay for circular economy solutions, a context that Finland helped to leverage into viable commercial and environmental outcomes (RiverRecycle, 2025a, 2025b; Circulate Capital, 2024, 2025a, 2025b; interviews). In Zanzibar, the distinctive culture of close cooperation among public institutions provided fertile ground for participatory planning under ZAN-SDI and BLUE-ZAN. Technological advances such as drone surveys and remote imagery interpretation, together with the adoption of Zanzibar's 2020–30 Blue Economy Policy, further shaped the interventions' trajectory and amplified their results (Caldecott et al., 2020; Syke, 2023, 2024; interviews).

In Nepal and Ethiopia, constitutional and policy contexts strongly influenced WASH interventions, which aligned with federalisation and OWNP respectively (see Findings 3 and 4). These adaptations ensured continuity and national ownership of results (Toft et al., 2022; Gossage et al., 2023; Mikkola et al., 2024).

Internationally, Finland's interventions also reflected long-standing contextual dynamics. Its decades-long engagement in the Mekong region made continued support to the Mekong River Commission a natural extension, particularly during a period of hydropower expansion that was transforming the basin's environment and societies (FCG, 2019b; Geheb et al., 2021). In the Nile Basin, political turbulence required the creation of an intergovernmental council to replace tension with dialogue, and Finland's financial support was pivotal to this (Niras, 2013; Yigezu et al., 2021). Finland's active promotion of transboundary water agreements since the 1960s also shaped its influential role in the UNECE Water Convention, where the influence of its sustained participation was amplified by the lower engagement of other parties (De Man et al., 2021; Vikman & De Man, 2021; interviews).

Finally, the country's strong domestic interest in water purity and availability created a supportive environment for multi-stakeholder collaboration through the Finnish Water Forum and the broader Water Way. These national traditions of interministerial and cross-sectoral cooperation provided the foundations for Finland's international credibility and diplomacy in the water sector (MFA et al., 2023; FWF, 2025a; interviews).

Overall, Finland's capacity to adapt to context – whether shifting global markets, new national constitutions, or regional political tensions – was a consistent strength. By adjusting to these influences, Finnish interventions maximised their relevance and impact, reinforcing their credibility with partners and enhancing the durability of results.

Finding 9. Finnish interventions that protect catchment ecosystems generate spillover effects, such as between water resources, forest conservation and disaster risk reduction, which amplify their positive environmental impact.

Dividing development cooperation into sectors and sub-sectors may be administratively convenient but risks overlooking cross-cutting dynamics in complex ecological and social systems. Thus interventions often yield results that transcend formal sectoral boundaries and they can be seen if they are looked for from a trans-sectoral point of view. This matters because recognising these effects can encourage efforts to safeguard, enhance and amplify them, while also highlighting achievements that might otherwise go unrecognised.

Plastic-waste initiatives supported through Finnpartnership and blended finance reduced pollution in aquatic ecosystems (see Finding 1) and created new business opportunities (see Finding 6),

but they also may have contributed indirectly to disaster risk reduction since river-borne plastic can block urban drainage systems and contribute to flooding risks. This is an increasingly severe global hazard, with over 200 million people estimated to face plastic-aggravated flooding (Tearfund & Resource Futures, 2023).

Forestry interventions supported under the Forests, Ecosystems and Biodiversity portfolio similarly reinforced Water as a Natural Resource outcomes. Community-based forest management in Lao PDR, Tanzania and Vietnam protected forest catchments, and by doing so would have enhanced water supply security, reduced disaster risks from erosion and landslides, and delivered climate co-benefits through carbon sequestration (Caldecott, 2021) Overall, the evidence shows that Finnish support delivered wider systemic benefits than captured in sectoral evaluations, showing a strong performance in this regard. By reducing flood risks, strengthening forest-water linkages, and advancing community-based natural resource governance, interventions in the Water as a Natural Resource and Forests, Ecosystems and Biodiversity sub-sectors jointly contributed to protecting environmental systems (long-range result 1) and to building resilience against climate and ecological risks. This underscores the importance of cross-sectoral analysis in appreciating the full scope of MFA's impact.

Finding 10. Finnish bilateral interventions generated co-benefits for international relations and commercial opportunities, which risk being lost as long-term bilateral programmes are reduced.

Bilateral cooperation contributed development results and strengthened Finland's diplomatic profile. A long-term Finnish presence in a country can build mutual respect and familiarity between individuals, institutions and nations. This matters because the reduction of long-term bilateral programmes may save public funds but can erode co-benefits such as diplomatic influence, opportunities for public-private partnerships, and the development of human capital with international experience. Recognising these wider effects is essential to fully assess the value of bilateral cooperation and to design cost-effective measures to mitigate potential losses as such relationships evolve.

In Ethiopia, Finland's three decades of continuous WASH cooperation illustrate how long-term engagement fosters mutual respect and goodwill between governments and societies. The celebration of this partnership in 2024 underscored the diplomatic dividends generated by successful bilateral interventions (COWASH, 2024). Finnish bilateral interventions also provided a framework for universities and non-governmental organisations to undertake complementary research and field projects in Water as a Natural Resource. These activities offered Finns opportunities to gain valuable experience in developing-country contexts, contributing to a pool of professionals with skills needed by Finnish companies, research institutions, and development finance actors engaging in emerging markets (see Sections 3.2 and 3.4; interviews).

Overall, to summarise evidence from interviews and recent trade missions to various past and present partner countries (e.g. MFA, 2023b, 2024a, 2024b, 2024c, 2024d), Finnish bilateral interventions produced benefits that extended beyond direct development outcomes. By creating goodwill, strengthening diplomatic influence, and generating learning and career opportunities for Finnish actors, they contributed to broader policy objectives. As Finland reduces its portfolio of long-term bilateral programmes, identifying and supporting alternative mechanisms – such as by supporting countries that wish to accede to the UNECE Water Convention through twinning arrangements, or through targeted non-governmental organisation and university partnerships – will be important to preserve these co-benefits (interviews).

4.2 Most effective approaches

An 'approach' is a key method or tactic – a portable element of a strategy. To qualify as 'most effective' in this evaluation, an approach must be judged to be: (i) strongly effective, impactful and sustainable;[21] (ii) in line with the theory of change; and (iii) strongly cost-effective.

Summary answer to EQ 1.3 – Most effective approaches

The most effective approaches were those that embedded Finnish support within larger institutional, financial, and ecological systems. Seven such approaches are identified, based on their consistent effectiveness, impact, sustainability and likely cost-effectiveness in line with the theory of change. They variously cover the use of international partnerships for the two goals of leveraged financing and policy influence, national partnerships for policy influence, focused business development support, participatory spatial planning for avoiding conflict over renewable natural resources, incentivising cooperation among sub-sectoral actors, and targeting multiple policy goals through ecological design.

Finding 11. Seven distinct approaches were identified in the sub-sectoral portfolio, all marked by strong effectiveness, sustainability and cost-effectiveness, and each likely to be useful in multiple contexts as parts of a toolkit for intervention design.

The approaches that met the criteria for 'most effective approach' (see above) included: leveraging international partnerships for financing and policy influence; aligning with national government priorities to shape policies and programmes; providing targeted business development support; promoting participatory and scientifically informed spatial planning; incentivising cooperation across the water sector; and valuing ecological relationships across sub-sectors.

These approaches created durable outcomes, while maximising broader benefits for environmental systems (long-range result 1). Where interventions were embedded in international institutions, national policies, or cross-sectoral coalitions, Finland ensured that projects could influence systems larger than themselves. Their effectiveness was also reinforced by the relative absence of negative unintended effects (see Finding 7) and by the adaptability of interventions to contextual opportunities such as federalisation in Nepal or Zanzibar's Blue Economy policy (see Finding 8).

International partnerships for leveraged financing, such as Finland's blended finance contribution to Circulate Capital, mobilised large-scale private investment to tackle plastic pollution, yielding measurable environmental results (see Finding 1). Partnerships for policy influence, including with the Mekong River Commission, Nile Basin Initiative, UNCCD, and the UNECE Water Convention, helped strengthen institutional capacity to address transboundary and global water challenges (see Finding 5).

National partnerships amplified influence by embedding WASH and land tenure programmes within government strategies in Nepal and Ethiopia, producing institutional reforms and new management

21 A strongly **effective approach** is one that reliably delivered valuable outcomes, with clear causal contribution; results were consistent, replicable, and aligned with the theory of change. A strongly **impactful approach** is one that contributed to significant positive change, with evidence of influence on broader systems, policies, or behaviours in line with the theory of change. A strongly **sustainable approach** is one that had consequences that were likely to continue producing results without external support, due to strong local ownership, institutionalisation, financial viability, or policy uptake.

systems. These proved influential, even if environmental sustainability challenges persisted in the WASH interventions (see Finding 4).

Targeted business development support grants from Finnpartnership (see Finding 1) and the Water Expertise Growth and Export Programme (see Finding 6) enabled Finnish enterprises to scale up innovative solutions in key target countries. Participatory and scientifically informed spatial planning, tested in Zanzibar and Nepal, and land registration in Ethiopia, fostered conflict resolution and inclusive governance with measurable ecosystem benefits (see Finding 2). Incentivising cooperation among Finnish water-sector actors, mainly through the Finnish Water Forum in the Water Way context, built private-sector agility and opened commercial and diplomatic co-benefits (see Findings 6 and 10). And valuing ecological relationships across sub-sectors, for example in forestry support to Lao PDR, Tanzania, and Vietnam, multiplied results across Water as a Natural Resource, disaster risk reduction, climate change adaptation and mitigation (see Finding 9). Even if not fully appreciated or planned-for at the time, land registration, spill-over effects and co-benefits (see Findings 2, 9 and 10 respectively) all added significantly to the ecological, social and diplomatic impact of Finnish ODA.

Taken together, the seven approaches identified here explain much of the strong effectiveness of Finnish support in the sub-sector. Their success rested on careful alignment with international and national priorities, and the ability to generate results that were not only impactful and sustainable but also adaptable, synergistic, and system-wide. The following table summarises the approaches, their main case examples, and the Findings in which they are discussed in more detail.

Table 5 Most effective approaches, case examples and related findings

APPROACH	EXAMPLE CASE(S)	RELATED FINDING(S)
International partnerships for leveraged financing	Finland-International Finance Corporation Blended Finance for Climate Program, Circulate Capital	Finding 1
International partnerships for policy influence	Mekong River Commission; Nile Basin Initiative with the World Bank; UNCCD with UNDP; UNECE Water Convention	Finding 5
National partnerships for leveraged influence	Long-term WASH programmes in Nepal (RWSSP-WN, RVWRMP, SUSWA); Ethiopia (COWASH, REILA)	Findings 3 and 4
Targeted business development support	Finnpartnership grants to RiverRecycle Oy	Finding 1
Participatory and scientifically informed spatial planning	ZAN-SDI and BLUE-ZAN (Zanzibar); REILA (Ethiopia); LACC (Nepal)	Finding 2
Incentivising cooperation among sectoral institutions	Finnish Water Forum; Finnish Water Way	Findings 6, 10
Valuing ecological success across sub-sectors	Community-based forest management in Laos, Tanzania, Vietnam	Finding 9

Source: Evaluation team

4.3 Finland's added value in the results

To assess Finland's added value, the evaluation adopted certain criteria to support its findings under this section. They are: (i) the unique or complementary 'strategic' value of Finland's cooperation compared to its peers in this sub-sector that others did not bring (i.e. what was distinctive about Finland's cooperation in the sub-sector); (ii) the 'operational' value of Finland's cooperation (i.e. the way Finland has used its financial instruments available to develop long-term partnerships dedicated to capacity and institutional building at the public, private and non-governmental levels; (iii) the 'normative' value of Finland's cooperation (i.e. capacity to influence policy reform).

Summary answer to EQ 1.4 – Finland's added value

Finland brought four distinctive elements with practical results to the water resources sub-sector: (i) concern for universal inclusion and human rights that shaped WASH, spatial planning and policy development interventions (strategic/normative); (ii) willingness to stay engaged in fragile and dynamic contexts to enable capacity and resilience building with institutional partners (strategic/operational); (iii) strategic networking of actors to build collective knowledge and skills in detecting opportunities and forming consortia through which to exploit them (strategic/operational); and (iv) integrating circular economy innovation, using dispersed but networked expertise and rights/gender equity, disabled and social inclusion-informed ecological approaches to link sustainability with inclusion and peacebuilding (strategic/operational and normative). These elements were deployed in various combinations, resulting in the distinctive strengths seen in the water resources portfolio. These complement other strengths (such as the normative effect of policy-development partnerships) that are important but not unique to Finnish development cooperation.

Finding 12. Measures inspired by Finnish concern for human rights enabled stakeholder groups with relatively low social status to be heard and to protect their interests in WASH design, spatial planning and policy development processes.

Longstanding features of Finnish development cooperation include a consistent stress on gender equity, disabled and social inclusion and the human rights-based approach (Caldecott et al., 2010, p. 24). Summarising interviews and source materials previously referenced, these priorities were strongly marked in the WASH interventions. This was seen in their focus on relieving drudgery and promoting safety and menstruation rights among women and girls, as well as fair access to WASH services among all those excluded by gender, caste and poverty. The same priorities were also expressed elsewhere in the water resources portfolio, such as in participatory spatial planning in Zanzibar (ZAN-SDI and BLUE-ZAN) and Nepal (LACC), and policy influence within international organisations (Mekong River Commission) and the desertification and water conventions, as well as national governments in Nepal and Ethiopia. In all such areas, broad inclusion is essential to ensure that proper attention is paid to the interests of stakeholders at risk of being excluded or left behind, whether as groups (e.g. rural communities, Indigenous peoples, civil society organisations) or as individuals. These must often be advanced against the interests of stakeholders that hold more influence (e.g. ministries, large businesses), and Finnish willingness to do so is a notable feature of the Water as a Natural Resource portfolio.

Finding 13. Two distinctive features were seen in the Finnish sub-sector portfolio: (i) a willingness to undertake long-term engagement in fragile and dynamic contexts; and (ii) a willingness to to pursue a cooperative and inclusive approach to governance.

Finnish support stood out for sustained presence in under-served or politically complex contexts (e.g. western Nepal, eastern Nile, rural Ethiopia), contributing to institutional reforms, embedding WASH and land tenure systems in federal governance, and stabilising transboundary cooperation (Findings 3–5, 8). This mattered because durable outcomes hinge on capable, legitimate institutions. In fragile and dynamic contexts, Finland's sustained presence combined with dialogue-driven governance produced institutional resilience through long partnerships with the Mekong River Commission, Nile Basin Initiative, UNCCD, and the UNECE Water Convention. Thus Finland aligned with national and international priorities and promoted inclusive, science-based governance (Findings 5, 8).

Finding 14. A distinctive Finnish strategy was to encourage and enable the networking of sectoral actors through permanent fora, which then became better able to exploit opportunities through ad hoc consortia.

Forums such as Mining Finland, Education Finland and most relevantly the Finnish Water Forum illustrate a characteristically Finnish 'cooperative culture' at work. This is very effective in many ways, notably in building collective knowledge, detecting opportunities and agreeing consortiums through which to exploit them. Some interviewees reported a reluctance by Finnish companies to invest outside certain 'comfort zones' of geography (northern Europe), tradition (familiar sectors and technologies) and scale (aware that large companies become targets for foreign take-overs), but these may well be temporary and indicate the steepness of recent learning paths. There is little evidence of it, for example, in the strong responsiveness of Finnish companies to business development grants by Finnpartnership (RiverRecycle Oy) and the EU's Water Expertise Growth and Export Programme.

Finding 15. Key features of Finnish support included efforts to integrate circular economy innovation, dispersed but networked expertise, and an equity-focused and ecological approach that linked sustainability with inclusion and peacebuilding.

Five factors combine to position Finland very favourably in the Water as a Natural Resource sub-sector relative to most peer countries (Annex 2): (i) a history of strongly promoting circular economy policy and practice; (ii) an exceptional degree of inter-ministerial cooperation through the Finnish Water Way; (iii) a dispersed but networked knowledge system of universities, research institutions and non-governmental organisations; (iv) a private sector that is connected to the same administrative and knowledge systems and that has developed a capacity for rapid consortium formation and multidimensional problem-solving; and (v) the complementary diplomatic capacity of the Water for Peace network. This offers a distinctive strength in terms of Finland's ability to integrate private-sector innovation with development goals, which was seen being put into effect in several ways (see Findings 1 and 6 especially) and which is likely to bear further fruit in future.

4.4 Markets, competition and demand for Finnish private sector

Summary answer to EQ 2.1 – Demand and competition for Finnish private sector

There is a twofold message from the evidence assessed. The first part is that very few opportunities for Finnish private sector engagement were directly associated with traditional ODA interventions in the sub-sector, mainly because their rural locations in least-developed and lower-middle income countries deterred Finnish companies that were used to selling into more technology-responsive markets. The second part is forward-looking and more positive, since there was a decisive shift in enabling conditions from about 2018, including:

- a more holistic approach to promoting all aspects of the water sector by government;
- strong signals and incentives by government for private companies to collaborate with each other and with non-commercial knowledge holders in exploring export possibilities;
- energetic promotion by government of trade and investment with former partner countries (and others) that had achieved middle-income country status or that had dynamic sectors matching Finnish technological offerings (e.g. in meteorology), and
- the development of increasingly well-organised knowledge and service networks in the water sector, in Finland, in other EU member states, and under EU auspices, that had become adept at competitive bidding for projects globally.

Drivers of change from 2018-19 included a burst in public climate-change awareness across Europe (see Section 3.3), the European Green Deal (see Section 3.1), and the first round of Nationally Determined Contributions under the Paris Agreement (see Section 3.4). All pushed governments to pay more attention to climate change adaptation and water resource management, putting Finland in a strong position both diplomatically (see Finding 6) and from the strong capacity of Finnish companies to respond effectively (see Finding 1 and Annex 4). Competition is strong, however, as Finland is not alone in developing these capabilities (see Annex 2). Finland's edge lies in niche technical expertise, resource-efficient and reliable solutions, and in an aptitude for partnerships and consortium-building. With these advantages Finnish interests may achieve considerable success in the expanding water resource markets of 2025–30. Meanwhile a number of specific prospects have been identified, including openings in EU-funded initiatives, circular economy projects in Vietnam, the Philippines and Indonesia, groundwater and forestry in Vietnam, and concessional financing under Public Sector Investment Facility agreements in Vietnam and Nepal.

Finding 16. Finnish private sector engagement in the water sector was inhibited by several factors in the first half of the evaluation period but became more enabled from about 2018 onwards.

The development of private sector engagement in the water sector was constrained in 2010–17 by the widespread perception of water as a public good, the dominance of public funding, and limitations of Finnish policy frameworks (interviews). From about 2018, these constraints began to ease, as new approaches were articulated in the Finnish Water Way (MAF et al., 2018) and

government measures encouraged all actors (including through subsidy reductions) to seek more commercial opportunities (interviews). This shift particularly affected the Finnish Water Forum whose corporate and other members span the entire Finnish water sector, and which had already shown strong capacity to generate viable opportunities (see Finding 6).

Non-member actors (such as those identified as such in Annex 2 and Annex 4, including various water clusters, universities, research centres, regional business-promotion groups and companies) also responded to the same policy signals, as well as to increased competition from Forum members (interviews). This trend was consolidated and amplified from 2024 with new policy directions (Government of Finland, 2024) and severe government budget cuts (see Section 3.2), to which water sector actors have responded actively (interviews). The result is a dynamic and evolving situation in which Finnish stakeholders are learning new ways of identifying opportunities and collaborating (see also Findings 10 and 14). An overview of opportunities that have emerged within water sector interventions indicates significant scope for further change. Overall, changes since 2018 show positive prospects for future results and a clear improvement of the enabling environment for private sector engagement.

Finding 17. The recent sub-sectoral portfolio offered few private sector engagement opportunities within bilateral WASH partnerships, but more potential existed elsewhere in the Water as a Natural Resource portfolio.

Traditional Finnish development cooperation in the water sector provided limited markets for private sector engagement (Annex 3). Bilateral WASH interventions focused mainly on rural water systems, which are typically managed with locally available materials, equipment and other resources, leaving little scope for modern technology or external innovations. Similarly, WASH services are generally delivered and maintained by local providers using regionally procured goods, which local legislation generally encourages. As a result, demand for Finnish products in these settings has been very limited (see also Findings 2 and 3).

From a wider perspective, however, the markets for water-related technology and expertise are expanding rapidly at global and developing country levels. Respondents to the evaluation's private sector engagement survey identified significant market potential in areas such as water purification and desalination, water and wastewater management systems in urban areas, and industrial wastewater treatment (private sector engagement survey). Competition in these markets is increasing, with both local and international actors active, but space remains for innovative solutions that meet genuine needs at attractive prices (interviews; see also Section 3.4, where it is noted that the sub-sector in 2025–2030 is rich in opportunities for Finnish private sector engagement). Survey respondents also noted resource efficiency, reliability and quality technology as comparative strengths of the Finnish water sector offerings to developing countries (see also Finding 15). Evidence from private actors confirms the diversity of commercial niches in which Finnish companies are active and capable of developing research and development projects at short notice (interviews; see Findings 6 and 8). The sample of the Water as a Natural Resource portfolio examined, being largely historic, does not fully reflect the current dynamism and diversity of the Finnish water sector from a commercial perspective.

Finding 18. The recent sub-sectoral portfolio contains many cases where potential commercial opportunities existed but were not recognised or pursued.

Opportunities that might have been present in the portfolio were often missed, and many no longer exist because the interventions are now closed (Table 6). This was not surprising, since private

sector engagement was not a Finnish development policy priority for most of the evaluation period and MFA's private sector instruments were seldom engaged in the projects reviewed (see Finding 16). The interventions were mainly government-to-government programmes, financed by Finnish and partner governments and sometimes by international public-sector co-financiers and collaborators, including the World Bank in the Nile Basin Initiative (Yigezu et al., 2021), UNDP in supporting the UNCCD (Peltonen, 2016), the Swedish International Development Cooperation Agency in J6P (Colin et al., 2024) and the EU in the cases of RVWRMP III (Toft et al., 2022), and more recently SUSWA (Mikkola et al., 2024) and LACC (LACC, 2024; interviews).

Even where Finnish companies had been involved in major infrastructure projects prior to the evaluation period, such as in Vietnam (Geheb et al., 2021), there was little evidence of their participation afterwards (FCG, 2019). Notably, they did not play a role in major capital investment operations such as the hydropower expansion of the Mekong Basin after 1995 while Finland was supporting the Mekong River Commission (web searches).

Nevertheless, there are cases where Finnish private sector engagement is underway or can be envisioned, and interviews highlighted additional possibilities (see Findings 6 and 17). Table 6 summarises the potential opportunities for Finnish private sector engagement among the Water as a Natural Resource interventions reviewed. It indicates whether funding or financing was available for companies to exploit associated opportunities, and categorises potential private sector engagement opportunities by means of different criteria.

Table 6 Potential Finnish private sector opportunities in water sector interventions.

THEME:	POTENTIAL FINNISH PRIVATE SECTOR OPPORTUNITIES:			
INTERVENTION	**ACTIVE OR PASSIVE?**	**EXIST OR MISSED?**	**NEW BUSINESS OR OTHER?**	**WITH FUNDING OR NOT?**
Non-governmental economic and environmental enterprise partnerships:				
Support to the Finnish Water Forum	Active.	Exist.	Both.	Indirect through tenders and calls for proposals.
RiverRecycle	Active.	Exist (for the company itself).	Both	No.
Circulate Capital	Active.	Exist (for the company itself).	Both.	No.
Bilateral WASH and social development partnerships:				
RWSSP-WN (Nepal)	Passive.	Missed.	Neither.	No.
RVWRMP (Nepal)	Passive.	Missed.	Neither.	No.
SUSWA (Nepal)	Passive.	Exist.	Opportunities limited by climate, rural situation and proximity of India/ China.	No.
COWASH (Ethiopia)	Active.	Exist.	Neither.	No.
WSPST (Vietnam)	Passive.	Missed.	Neither.	No.
J6P (Kenya)	Passive.	Missed.	Neither.	No.
REILA (Ethiopia)	Passive.	Exist.	Both.	No.
Bilateral and institutional Water as a Natural Resource and environmental partnerships:				
BLUE-ZAN (Zanzibar)	Active	Exist	Diverse potential opportunities in blue economy.	No.
LACC (Nepal)	Active	Exist	Opportunities limited by climate, rural situation and proximity of India/ China.	No.

THEME:	POTENTIAL FINNISH PRIVATE SECTOR OPPORTUNITIES:			
INTERVENTION	**ACTIVE OR PASSIVE?**	**EXIST OR MISSED?**	**NEW BUSINESS OR OTHER?**	**WITH FUNDING OR NOT?**
Multi-participant and multi-themed cooperative partnerships:				
Support to UNECE Water Convention	Passive.	Exist.	Opportunities may lie in the search for public-private partnerships.	No.
Support to the Mekong River Commission	Passive.	Missed.	Neither.	No.
Support to the UNCCD	Passive.	Missed.	Neither.	No.
Support to the Nile Basin Initiative	Passive.	Missed.	Neither.	No.
Water Diplomacy	Passive.	Exist.	Opportunities may lie in the search for public-private partnerships.	No.
Finnish Water Way	Active.	Exist.	Opportunities across the water sector.	Indirect through tenders and calls for proposals.

Notes.

Private sector entities are for-profit companies and firms. Hence private sector engagement here means engaging these and not other stakeholders that might have interest in the intervention and its spin-offs.

Active or passive? An 'active' opportunity is one in which the implementing partner was or is actively working to identify and engage private sector companies. A 'passive' opportunity is one in which either: (i) the intervention could accommodate collaboration with private companies but the implementing partner is not actively working to identify and engage companies and/or there is no private sector engagement strategy or any activities planned for private sector engagement; or (ii) the intervention is silent about any private sector engagement but nevertheless operates in a sector that attracts private companies and could, with active facilitation and incentives, also attract Finnish companies.

Exist or missed? An 'existing' opportunity is one where: (i) the intervention is underway or is likely to enter into new phase; or (ii) there is evidence of relationships, reputation or demand remaining from a closed intervention that could support private sector engagement if a plan and resources were committed to take action. A 'missed' opportunity is one where there is no sign that private sector engagement opportunities remain from a past intervention in the specific sector and location concerned.

New business or other? A 'new' business opportunity is one that presents itself in the form of an opportunity to expand into the relevant sector (or related sectors) in ways that are likely to have a direct impact on the company's turnover. An 'other' business opportunity is one that that presents itself in the form of potential collaboration in accessing new technologies, partnerships, knowledge, skills or trading standards in ways that are unlikely to have a direct impact in the company's turnover.

With funding or not? An intervention 'with funding' is one where funding or financing is available for private sector companies. 'No funding' means that no such funding or financing is available.

Sources: Evaluation team analysis of the Water as a Natural Resource sample interventions

Finding 19. Long-term Finnish engagements overseas, combined with public investment in consortium building and recent policy reforms, are generating new business opportunities for Finnish companies.

Interviews confirmed that while earlier interventions offered few entry points for private-sector engagement (see Findings 16–18), the evolving context has created a more dynamic environment in which prospects are opening across multiple regions and sectors.

One area of opportunity is intra-EU competition and collaboration. Institutions in EU member states beyond the dominant France, Germany and Sweden have shown interest in partnering with Finnish institutions to secure contracts in EU-funded initiatives (interviews). Catchment-to-coast projects were mentioned as a promising theme. Although such opportunities could involve Finnish companies of all sizes, respondents noted that they may require government-to-government dialogue to be realised (interviews).

Engagement with the procurement processes of multilateral development banks has so far yielded limited results. Interviewees explained that larger Finnish companies, which are the most eligible for tenders from multilateral development banks, have shown little interest in expanding into least-developed and lower-middle income countries, preferring instead the relative security of upper-middle income countries. This indicates that despite stronger consortium-building capacity (see Finding 6), risk appetite remains uneven.

By contrast, the circular economy is an area of growing promise. Vietnam, already an upper-middle income country or soon to become one,[22] has strong policy support for circular economy solutions, and has an upcoming EU Global Gateway project co-financed by Germany with a role for the Finnish Innovation Fund Sitra (interviews). Additional opportunities were noted in a digitisation project in the Philippines and plans for Indonesia's new capital, Nusantara, to be built as a "smart" city with extensive digital management. These cases align closely with Finland's recognised added value in circular economy innovation (see Finding 15).

In forests and groundwater management, Vietnam again stands out. Finland's earlier Forestry Management Information System project and five recent ICI projects built strong partnerships and credibility (see Forests, Ecosystems and Biodiversity sub-sector report). The Geological Survey of Finland's VietMAR ICI project on managed aquifer recharge prompted dialogue with Dutch and German development partners and the Asian Development Bank on a possible continuation supported by EU Technical Assistance and Information Exchange (TAIEX) funding (interviews). Such opportunities illustrate the long-term dividends of Finnish technical expertise and partnerships.

Recent framework agreements under the PIF also create opportunities. Since signing a PIF agreement with Vietnam in 2021, eleven projects worth EUR 244 million have been accepted for development, though none have yet entered implementation (interviews). A similar agreement with Nepal in 2024 opened concessional financing for infrastructure development, including water. This may attract Finnish companies to the Nepalese market where opportunities exist particularly in urban contexts (see Annex 3).

Replication opportunities also emerged from Finnish experience in participatory mapping and spatial planning. The ZAN-SDI and BLUE-ZAN interventions in Zanzibar are inspiring potential

22 See World Bank: https://blogs.worldbank.org/en/opendata/world-bank-country-classifications-by-income-level-for-2024-2025

replication across the coastal zones of Mozambique, Tanzania and Kenya, while African interest in the UNECE Aarhus and UNECE Water Conventions is also growing (interviews). Observers cautioned, however, that the Blue Economy requires partners with a strong grasp of ecological sustainability, which may be a limiting factor.

Finally, in Ukraine, the latest reconstruction plan (World Bank et al., 2025) includes a significant water component. Interviewees pointed to Finnish interest in environmental and groundwater issues, to Finnish Water Forum activity with EU funding in Lviv, and to an ICI project on natural water quality involving Vaisala Oyj (interviews). These initiatives suggest scope for further Finnish involvement in reconstruction-related water and environment activities.

Together, these examples show that Finland's long-term presence, public investment in enabling instruments such as PIF, and its recognised expertise in circular economy, forestry, groundwater and spatial planning are opening a wide range of new opportunities. Where Finland had built long-term partnerships and technical credibility, new opportunities are being generated that might otherwise have been inaccessible. While not all opportunities are equally accessible – procurement from multilateral development banks remains challenging – Finland's comparative strengths and networks position its private sector to benefit from emerging demand across multiple contexts. Nevertheless, many of these opportunities are highly context-dependent and not guaranteed.

4.5 Foreseen gains and benefits for Finnish companies and development cooperation

Summary answer to EQ 2.2 – Potential gains for Finnish companies and development cooperation

In the Finnish context, positive feedback between policies, networked institutional capacity, and the ability of companies to exploit opportunities is transforming the water resource sub-sector in ways that equally benefit business and development cooperation. Finnish companies experience both short- and long-term gains. In the short-term, platforms such as the Finnish Water Forum, targeted business support, and alignment with bilateral and multilateral programmes have yielded successes like Finnpartnership's grants to RiverRecycle and the blended finance Circulate Capital case. In the longer term, Finland's cooperative culture of consortium building and its post-2018 policies are positioning firms to compete in expanding global markets for water resource management, circular economic system investing and climate change adaptation. These partnerships add value for development cooperation by linking Finnish expertise to systemic challenges such as water pollution, unmet needs for WASH services, and inclusive water resource governance, thereby advancing ecological sustainability, inclusion, and other cooperation goals.

Finding 20. There are now powerful enabling arrangements in place, as well as inspiring examples, to encourage interest by Finnish companies in Water as a Natural Resource.

Finnish interventions and system changes since 2018 (see Finding 16) have created a much stronger enabling environment for private-sector engagement in the Water as a Natural Resource sub-sector. Networks such as the Finnish Water Forum (Saarilehto, 2022) provide access to

companies, ministries, research institutions, universities, and non-governmental organisations that share commercial leads and can form consortia at short notice to exploit overseas investment opportunities (see Findings 12–15). These changes also reflect lessons from the limited scope of bilateral WASH interventions (see Finding 17), where rural, low-technology contexts rarely created viable demand for Finnish solutions (interviews). In contrast, current private sector engagement efforts build on cases where earlier opportunities were missed (see Finding 18), making it more likely that companies will now recognise and exploit similar opportunities.

Based on findings and interviews, the following resources for Finnish companies are now available to reinforce this trend. First, there are networks of Finnish companies and other useful members (ministries, research institutions, universities, charities) that harvest and share viable leads from a global intelligence-gathering community, and that can access companies with a wide range of interests, skills and technologies among which potential consortium partners can be found to explore almost any opportunity (see Finding 19). Second, there are Finnish companies or those with Finnish contacts that already operate overseas in a range of challenging but dynamic markets, with proven track-records, credible business strategies and very ambitious growth plans (see Findings 19). Third, bilateral Finnish development cooperation programmes have the stated aim of attracting Finnish businesses into a plausible array of sectors that they have already identified (such as utility services and information/communication technology), or that are changing local circumstances in ways that offer new opportunities (such as by reforming land tenure), in countries with policies to welcome foreign investment without onerous conditions (including COWASH and REILA in Ethiopia, SUSWA and LACC in Nepal, and BLUE-ZAN in Tanzania; see Findings 1 and 2). Fourth, there are well-established Finnish government activities with global institutions that are reshaping relationships within and between important themes like transport, energy, trading standards, raw materials, urban development, land management, or the water-food-energy-ecosystems nexus and the rules that govern innovation, competitiveness and public-private partnerships, which it would be wise to keep track of (see Finding 5), to which can be added the emerging role of the EU Global Gateway (see Section 3.2). And fifth, Finnish inter-ministerial working groups exist which focus on trying to work out how to bring Finnish investment into sectors like peace and diplomacy where commercial activity is not traditional but is seen as desirable, or that are actively seeking to secure international financing and to promote Finnish internationalisation and export (see Section 3.2 and Finding 6).

Taken together, these enabling arrangements and examples show how Finnish companies now operate in a more dynamic and supportive environment than in the past. The MFA investments that brought this about seem to have been cost-effective, as represented by only EUR 396,000 of MFA support to the Finnish Water Forum in 2023–25, which leveraged commercial leads worth hundreds of millions (FWF, 2025b). This underlines the catalytic impact of well-targeted small inputs that fit into a coherent strategy and synergise with its other elements. By combining cooperative networking (see Finding 14), policy reform (see Finding 16), systematic opportunity mapping (see Finding 19) and concrete business cases, Finland has positioned its private sector to play an increasingly larger role in advancing development cooperation objectives while competing more effectively in global Water as a Natural Resource markets.

4.6 The best approaches and measures to promote private sector engagement

Summary answer to EQ 2.3 – Most promising approaches for promoting Finnish private sector engagement

Finland has taken forward a comprehensive overall strategy in the water sector that included measures to encourage, enable and incentivise participation by private companies. This is achieving the desired results and may ultimately be the best way to promote private sector engagement. But within that there are three approaches that stand out in terms of delivering cost-effective impact: (i) leveraging international financial institutions to mobilise large-scale investment; (ii) building long-term partnerships with international organisations and national governments to shape policy; and (iii) providing targeted business development grants to scale up viable innovations. These approaches are all promising in view of their replicability, but certain conditions apply to their viability. Thus they must all be anchored in policy and institutional frameworks that make financing available, while well-established partnerships are needed for influence, and credible business models that target real needs are needed for commercial success. Adequate donor capacity is also required to support effective decision making. Recent cuts to official development assistance budgets in several countries including Finland may compromise these conditions, but business development grants seem likely to remain attractive having a favourable cost/risk to potential impact ratio.

Finding 21. Finland's comprehensive approach to water offers at least three models for private sector engagement: leveraging international financial institutions, building long-term policy partnerships, and providing targeted business development grants.

Since about 2018, Finland has pursued a more structured and holistic water-sector strategy, rooted in earlier traditions but reinforced through the Finnish Water Way (MAF et al., 2018). This approach has steadily increased the capacity of Finnish private companies to identify and collaborate in exploiting opportunities, often through networks such as the Finnish Water Forum (see Findings 6 and 14). This matters because building private sector engagement capacity across an entire sector as diverse as water requires more than ad hoc projects: it calls for coordinated incentives and a whole-of-government approach.

Moreover, the combination of ecological realism, human-rights-based principles and gender equity, disabled and social inclusion commitments, and pragmatic acceptance of reduced public funding, has created a strong enabling environment (interviews). One aspect of this is that comparative evidence from five like-minded peer countries shows that Finland and Switzerland stand out as having strong and distinctive systems for promoting "partnerships for just and sustainable water" (Annex 2). Another aspect is that three particular approaches are seen to have special power to promote private sector engagement.

First, there are partnerships with international financial institutions, represented by the Finland–International Finance Corporation blended finance[23] contribution to Circulate Capital (interviews). This proved capable of leveraging large-scale investment into an enterprise tackling the systemic threat

23 See: https://www.ifc.org/en/what-we-do/sector-expertise/blended-finance/climate/finland-ifc-blended-finance-for-climate-program.

of waste plastic pollution (see Finding 1). It offers an inspiring model for use in any circumstance where a viable business model looks credibly set to help solve a major and urgent environmental problem, and where financing for it can be anchored in international financing frameworks. Thus the approach is strongly promising and viable, and with this precedent in mind a search for other ways to use this model should be rewarding.[24]

Second, there are long-term partnerships with international organisations and national governments, including those with the Mekong River Commission, Nile Basin Initiative, UNCCD, and the UNECE Water Convention, and bilaterally with Ethiopia and Nepal (see Table 1). These have shown themselves able to establish sufficient trust and credibility to allow policies to be shaped in ways, inter alia, that open opportunities for private actors (see Findings 2–5). This approach can evidently yield influence at regional and global scale, but it requires the context of a well-established partnership[25] and the backing of appropriate institutional mandates and policy frameworks. If these conditions are fulfilled, then the approach is strongly promising in its potential for replication, and strongly viable in being anchored in policy and institutional frameworks (even allowing for the changes in the ODA landscape described in Chapter 3).

And third, there are targeted business development grants, such as those provided by Finnpartnership to RiverRecycle, which enabled an early-stage enterprise to scale up viable innovations in a challenging but high-impact market (see Finding 1). Like the first approach, this one can be used to back good ideas and viable business plans but with smaller volumes of capital in each case it can afford to be more experimental. The Water Expertise Growth and Export Programme is an additional example of this approach being applied (see Finding 6). A willingness to accept that not all grants will be equally successful is needed, along with the expertise to reliably choose for support cases where business models align with market demand in addressing environmental problems effectively. If these conditions are met, then the approach is strongly promising in its potential for replication, and strongly viable because it offers a way to explore a range of opportunities at low cost per item, with most risks outsourced to the project proponents. Thus it is likely to be an increasingly attractive approach in a changing ODA environment.

These approaches also align well with EU and Global Gateway initiatives (see Section 3.4), where Finland's experience can add special value. Overall, the success of these models illustrate Finland's key comparative advantage: its ability to combine comprehensive national coordination with targeted instruments that link commercial opportunities to development cooperation objectives. Future gains will depend, however, on decision makers having the skills to identify the right targets in a context where climate and ecological pressures will increasingly define the viability of all developmental and commercial actions.

24 However, a critical awareness that not all plausible-seeming proposals have merit will always be needed. A case in point is that five leading ideas for using geoengineering techniques to safeguard the melting Arctic were recently examined, and none was found to be feasible or environmentally safe enough even to warrant further study (Siegert et al., 2025).

25 While the partnerships described here had been underway for several to many years, it is possible to accelerate the process of partnership building if partners are already familiar with each other's reputations for competence and trustworthiness, and if deliberate efforts are planned and implemented early on to explore shared aims, expectations and ways of working.

5 Conclusions

Conclusion 1. There were strong achievements in protecting environmental systems and improving social ones, with success stories in waste plastic recovery, WASH service delivery, and cooperative governance of spatial planning and resource tenure systems.

Related to findings: 1, 2, 3, 11.

The evaluation confirms strong performance of Finnish support in achieving tangible results across multiple dimensions of the Water as a Natural Resource sub-sector. By mobilising financing for circular economy innovation, Finland addressed pressing environmental threats while also strengthening markets for sustainable solutions. Long-term WASH partnerships transformed service delivery in difficult contexts, improving living conditions at scale and leaving an institutional legacy in partner countries. Interventions in participatory spatial planning and land governance demonstrated how inclusive and science-based approaches can reduce tensions over natural resources.

Conclusion 2. Conclusion 2: Support was most effective when deployed either in whole water systems within ecological and/or administrative boundaries, or by being influential within larger systems of national reforms, multilateral frameworks and market mechanisms.

Related to findings: 1, 3, 5, 11.

Strong performance was seen where Finnish interventions aligned with whole-system approaches, recognising the ecological, institutional, and economic interconnections of water management. This began at home, with the whole-of-government Finnish Water Way aligned with the key principles of the EU Water Framework Directive: (i) that reliable, high-quality water supply needs functional, unpolluted ecosystems and aquifers; and (ii) that everything happening in catchments affects surface and ground waters and ecosystems, so ecologically-informed arrangements accountable to all stakeholders are essential. This bioregional approach is similar to the municipality-based and partially ecosystem-oriented concept of Finnish-EU WASH interventions in Nepal (RVWRMP Phase III, SUSWA), but LACC may develop this further into a whole-bioregion approach that can yield transformative outcomes.

By embedding these and other Finnish priorities within national reforms, influence extended far beyond their direct funding share by addressing issues of governance, land tenure and service delivery. This was easiest where the national direction of travel was towards local empowerment and responsibility for delivering public services, as was the case in Nepal with its 2015 Constitution, in Ethiopia with its reform of land tenure and community-oriented WASH, and in Zanzibar with its high degree of local autonomy within Tanzania. Meanwhile, at the multilateral level, engagement with the Nile Basin Initiative, Mekong River Commission, and UNECE Water Convention helped to shape cooperative governance across entire river basins. These trajectories all helped create conditions in which Finnish-supported local empowerment efforts could synergise and integrate with national goals and yield major sustainable improvements and strong policy influence.

Conclusion 3. The sustainability of results was uneven: while institutional reforms proved durable and cost-effective, ecological resilience measures remained fragmented and under-resourced, leaving achievements vulnerable to climate pressures.

Related to findings: 3, 4 and 8.

While Finnish support was most effective when working through whole water systems and larger institutional or financial frameworks (see Conclusion 2), its capacity to ensure ecological resilience within these systems was more limited. Finland's emphasis on governance and institution-building generated relatively high returns for modest inputs, as reforms in WASH, tenure security, and cooperative planning often seemed likely to endure beyond project lifespans. These results were therefore not only institutionally sustainable but also cost-effective, given the scale of benefits relative to funding volume. However, environmental sustainability was weaker. In WASH, resilience measures such as groundwater recharge ponds or water safety planning were too small in scale to counter declining water availability at a landscape level. In Zanzibar and Ethiopia, spatial planning and tenure reforms helped clarify rights and reduce disputes, but broader ecological pressures such as coastal erosion and drought remained largely outside the interventions' reach.

This imbalance reflects both the strengths and limitations of Finland's approach: strong performance in institutional sustainability achieved at relatively low cost, but only moderate performance in ecological sustainability, where fragmented measures were insufficient against systemic climate and hydrological risks. The long-term durability of results thus remains contingent on factors beyond Finland's direct influence.

Conclusion 4. After 2018 forum-based networking and whole-of-government coordination enabled Finnish private companies to identify, form consortia, and pursue international opportunities aligned with cooperation priorities.

Related to findings: 6, 10 and 16 to 20.

For most of the evaluation period, private sector engagement in the Water as a Natural Resource sector was limited by the perception of water as a public good and the dominance of public investment. This began to change from 2018, when the Finnish Water Way introduced a more holistic orientation and the Finnish Water Forum grew further into its role as an institutional platform for knowledge sharing, consortium-building, and rapid response to international tenders. In 2020–24, Forum members identified hundreds of millions of euros in viable commercial leads, while Finnish companies within and outside the Forum demonstrated their capacity to respond quickly and effectively to opportunities such as the research and development grants available from the EU's Water Expertise Growth and Export Programme.

These developments positioned Finnish companies more firmly within global cooperation markets, especially in areas like circular economy solutions, groundwater recharge, and digital water systems. Although concrete results are still emerging, the shift represents a marked improvement from earlier periods and reflects moderate performance overall, with strong prospects for long-term commercial and developmental alignment.

Conclusion 5. Finnish added value lay in combining technical expertise, a cooperative governance culture, circular-economy innovation, and sustained engagement in fragile contexts to enhance inclusiveness, peacebuilding, and influence across whole systems.

Related to findings: 5, 6 and 11 to 15.

Among like-minded peers, Finland stood out for networked excellence: technically strong universities, institutes, non-governmental organisations, and firms linked through the Finnish Water Forum and other clusters of institutions, enabling rapid consortium-building and multidimensional problem-solving.

Crucially, Finland paired this with a cooperative governance culture – whole-of-government at home and dialogue-driven abroad – prioritising inclusive, rights-aware processes that helped rebalance relationships in favour of stakeholders such as households, non-governmental organisations and Indigenous communities that typically control fewer resources of wealth, status and influence than state actors or major private companies. This rebalancing was evident in participatory spatial planning, tenure reform, transboundary agreement, protocols for sustainable hydroelectricity and similar initiatives, and also in Finland's influence within multilateral frameworks such as UNCCD and the UNECE Water Convention, where it worked for higher standards in technical and cooperative processes.

Further differentiators included: (i) translating circular-economy thinking into Water as a Natural Resource practice, such as through catalytic roles in early plastic-recovery finance; and (ii) a willingness to remain present in fragile or politically sensitive settings over time, which amplified trust, policy influence, and uptake of inclusive governance norms to link institutional sustainability with human rights, gender equality, and peacebuilding.

Conclusion 6. Finnish interventions generally ensured that benefits were realised as intended; unexpected negative effects were rare, while cross-sectoral spillovers – such as between forestry, water and disaster risk reduction – amplified overall influence.

Related to finding(s): 6 to 9.

The portfolio's effectiveness rested on its generally high design quality,[26] careful implementation, and flexibility to adapt to shifting political, ecological, and institutional contexts. This ensured that most benefits reached intended stakeholders and often extended beyond them. Negative unintended effects were rare, and when they did occur (e.g. biased access in small-town Vietnam), they were limited in scope.

Although seldom recognised for this, Finnish interventions sometimes generated positive spillovers that magnified their reach. Recovering waste plastics reduces pollution and can lower flood risks by reducing the abundance of material that could block drainage systems. By promoting protection and regeneration of forested water catchments, community-based forestry programmes helped secure water supplies and reduce disaster vulnerability. Participatory planning in Zanzibar helped secure resources on which sustainable livelihoods could be based, while WASH projects in Nepal reinforced health, nutrition and education outcomes. These cross-sectoral effects illustrate the value

26 While accepting that this lapsed occasionally, at least partly for reasons beyond the designers' control in the cases of J6P in Kenya and WSPST in Vietnam, or because original design priorities were overtaken by poorly-anticipated environmental trends in the case of climate change and WASH interventions in Nepal and Ethiopia.

of systems-based thinking, to which Finland aspires in the Water as a Natural Resource sub-sector even where individual development cooperation projects targeted narrower goals.

Taken together, the portfolio shows strong effectiveness and influence: results were reliably delivered, risks were well managed, and additional benefits often exceeded the original scope, amplifying Finland's contribution across environmental and social systems.

Conclusion 7. Long-term bilateral partnerships yielded co-benefits of familiarity, trust, mutual learning and commercial opportunities, all of which can be lost if such engagements are reduced without putting in place alternative ways to sustain them.

Related to findings: 2, 3, 5, 7, 9 and 10.

Finland's long-term engagements in WASH and natural resources created important dividends that extended beyond development results. In Ethiopia and Nepal, decades of cooperation fostered trust, mutual respect, and institutional familiarity. These relationships also opened entry points for Finnish universities, non-governmental organisations, and companies, building human capital and reputational assets that outlasted individual projects. Similarly, Finland's active role in international institutions such as the UNECE Water Convention demonstrated how consistent, visible engagement can secure systemic influence and create pathways for future cooperation, including commercial opportunities.

These co-benefits provided leverage in multilateral diplomacy, enriched Finland's expertise base, and created career pathways for younger Finnish (and other) professionals. However, as Finland reduces its portfolio of long-term bilateral programmes, these benefits will naturally diminish since they depend on continuity. Once lost, they are hard to regain (see potential action point 1).

Conclusion 8. Seven consistently effective and sustainable approaches were identified: leveraged finance, policy influence, national partnerships, targeted business support, participatory planning, institutional cooperation, and cross-sectoral ecological design.

Related to findings: 1 to 3, 5, 6, 9 and 11.

The evaluation identified a set of approaches that consistently delivered strong, cost-effective results across different contexts. These approaches form parts of a practical toolkit that can be adapted and re-used in future interventions.

Leveraged finance through partnerships with international financial institutions mobilised resources at scales far exceeding Finland's direct inputs, as seen in plastic-pollution initiatives. Long-term partnerships with international organisations such as the UNECE Water Convention and Mekong River Commission embedded inclusive governance and scientific knowledge into global frameworks. National partnerships, notably in Nepal and Ethiopia, anchored reforms in WASH and tenure systems that improved services and reduced conflict risks.

Targeted business development support helped early-stage Finnish enterprises test and scale viable solutions, while participatory and scientifically informed spatial planning in Zanzibar and Ethiopia showed how inclusive approaches reduce resource conflict. Institutional cooperation and forum-based networking incentivised collaboration and agility across Finnish actors, while ecological design ensured that interventions produced multiple policy benefits simultaneously.

These approaches were effective because they addressed systemic drivers, rewarded key actors, and balanced ecological integrity with social and economic outcomes (see Conclusion 2 on why Finnish support succeeded in the Water as a Natural Resource sub-sector).

Table 7 Linking conditions of success and effective approaches

CONDITIONS OF SUCCESS (CONCLUSION 2)	EFFECTIVE APPROACHES (CONCLUSION 8)	ILLUSTRATIVE FINDINGS
Operating at scale through reforms, frameworks, and markets	Leveraged finance (e.g. Circulate Capital) and policy influence via international organisations	1, 5, 11
Embedding interventions in broader systems (national programmes, multilateral agreements)	National partnerships (Nepal, Ethiopia) and long-term multilateral cooperation (UNECE, Mekong River Commission, Nile Basin Initiative, UNCCD)	2, 3, 5
Catalytic use of modest Finnish inputs for wider impact	Targeted business development support (RiverRecycle) and forum-based institutional cooperation (Water Forum, Water Way)	1, 6, 11
Recognising whole water systems and ecological interdependencies	Participatory planning (Zanzibar, Ethiopia) and cross-sectoral ecological design (forestry–water linkages, disaster risk reduction)	2, 9
Aligning with inclusive governance traditions	Participatory planning and policy influence approaches that rebalance power between weaker and stronger actors	2, 5

Source: Evaluation team

6 Potential Action Points

The following potential action points are inputs to possible recommendations in the synthesis report. The aim is to suggest areas where small allocations from ODA budgets that remain after overall cuts can be used to support highly cost-effective actions for the benefit of Finland and its partners in development.

Action point 1. Identify measures to mitigate the loss of diplomatic and commercial co-benefits from reduced bilateral engagement, e.g. by twinning for accession to the UNECE Water Convention or through non-governmental organisation and university partnerships.

Related conclusions: 1 and 7.

It may be useful to consider whether and how to mitigate the loss of co-benefits arising from the closure of long-term bilateral country partnerships, for the benefit of Finnish business interests and others. Other ways to meet Finland's needs for globally-experienced personnel could include: (i) increased funding to Finnish non-governmental organisations, universities and research institutions to diversify their field activities worldwide so as to offer early-career opportunities to young Finns; and (ii) increased investment in Finnish Water Diplomacy to allow it to respond positively to requests for twinning arrangements with Finland to facilitate accession to the UNECE Water Convention (and possibly also the UNECE Aarhus Convention), so as to build bilateral relationships and participate in shaping knowledge and policy.

Action point 2. Strengthen water diplomacy capacity to identify and facilitate nature-based solutions and payment-for-ecosystem-service opportunities at national and subnational levels, drawing on existing Finnish and multilateral expertise.

Related conclusions: 2 and 3.

It may be useful to consider whether and how to add to Finnish water diplomacy resources the capacity to identify and facilitate national and subnational transboundary nature-based solutions for resilience, disaster risk reduction and climate change adaptation, and payments for ecosystem services arrangements to head off or resolve urban-rural conflict through 'user-pays' systems to cover protection and restoration of ecosystems upon which urban populations (i.e. more than half the word's people) depend (Finding 1). It might also be helpful to draw on the expertise of institutions such as IUCN, WWF Finland and Siemenpuu that are supported through the Forests, Ecosystems and Biodiversity programme, as well as UNEP and the UNECE Water Convention task forces and working groups. These could supply content for guidelines, workshops, digital help systems and interactive training videos on how to analyse the costs and benefits of Water as a Natural Resource interventions, including ecological valuation and opportunity identification. These tools would help in building capacity among Team Finland, PIF and other users to design and appraise business cases and investment plans. Such enhanced capacities on the interface of ecosystem and water resource management would also be useful in negotiations surrounding climate change adaptation and water, since these issues are seen as central to each other in terms

of international conventions such as the UNFCCC, UNCCD, Convention on Biological Diversity and UNECE Water Convention.[27]

Action point 3. Leverage Finland's strong forum-based cooperation culture and particular technical strengths to participate more actively in dialogues on long-range ecological risks, including Arctic system tipping points.

Related conclusions: 5 and 6.

It may be useful to consider whether and how to take advantage of the fact that Finnish actors consistently show a willingness to form and innovate within networks, forums and consortia. They also show an aptitude for cross-sectoral (nexus) approaches, as shown by work since 2012 with the Water-Food-Energy-Ecosystems Nexus under the UNECE Water Convention and development of the conflict analysis tool for water diplomacy by Syke and the Finnish Institute of International Affairs. These key Finnish strengths offer a comparative advantage to Finland in taking on complex, long-range challenges that require cooperation to address effectively. For example, Finland could consider adding to its water diplomacy resources the capacity to participate more actively in dialogue with other Arctic nations and others on precautionary responses to such urgent challenges as the imminent (ca 2032) loss of summer sea ice in the Arctic Ocean and the likelihood of accelerated heating and methane release in the Arctic region during the 2030s and 2040s. With tipping points of this kind fast approaching, the next decades will be very challenging, and Finland's technical and diplomatic resources will be in great demand.

Action point 4. Ensure that any significant opportunities identified for private sector engagement in the sub-sector are systematically tracked and disseminated across Team Finland actors.

Related conclusions: 4 and 5.

It may be useful to consider that the rapid and effective response of Finnish companies to the EU's Water Expertise Growth and Export Programme (Finding 6) demonstrates the strong private sector engagement capacity that actors in the Water as a Natural Resource sub-sector have attained since 2018. This growth in capacity is in the context of a markedly holistic Finnish water strategy (Findings 18, 19). As these changes mature in their effects, with far-reaching consequences, it is useful to note some paths that are opening to private sector engagement (Finding 17). These include opportunities that concern: (i) Finnish companies working with companies in smaller EU member states (facilitated by government-to-government dialogue); (ii) circular economy initiatives in Vietnam, the Philippines and Indonesia; (iii) forest and groundwater initiatives in Vietnam; (iv) PIF framework agreements signed with Vietnam in 2021 and Nepal in 2024; (v) the replication of spatial planning initiatives in the coastal zones of Mozambique, Tanzania and Kenya; (vi) the expansion of the UNECE water and Aarhus conventions in Africa; and (vii) reconstruction in Ukraine where there is demand for expertise in options for recharging groundwaters and restoring water quality. Existing intelligence and knowledge-sharing arrangements in the Finnish Water as a Natural Resource sub-sector are presumably tracking these and other prospects, but it would help if all

27 See: https://unfccc.int/news/water-at-the-heart-of-climate-action; https://www.unccd.int/land-and-life/climate-change/overview; https://www.cbd.int/article/naturebasedsolutions; https://www.cbd.int/article/biodiversityloss-climatechange; https://unece.org/environment-policy/water/areas-work-convention/water-and-adaptation-climate-change; https://www.unwater.org/water-facts/water-and-climate-change

Team Finland actors, including embassy coordinators, thematic ambassadors, trade counsellors and honorary consuls, were kept fully up to speed on how Finnish companies could be involved.

Action point 5. Explore potential reform of MFA instruments to enhance flexibility, blended finance options, and inclusiveness of diverse actors, building on lessons from all instruments and actors in the sub-sectoral portfolio.

Related conclusions: 4 and 8.

It may be useful to consider whether and how to react to the fact that multiple interviewees called for reform of MFA's instruments. Repeated suggestions were for these to become: (i) more flexible, agile, and easier to mobilise; (ii) more open to different kinds of proponents and participants; (iii) more capable of mixing concessional loan and grant financing; (iv) more supportive of results-based management; (v) more inclusive of diverse agencies committed to a common goal (e.g. as inspired by the Finnish Water Way); and (vi) better able to meet funding needs between entry-point financing (e.g. by Finnpartnership) and large-scale financing (e.g. by PIF). Also noted by interviewees was that the ICI lacks specific arrangements for follow-on work (which perhaps accounts for the four-year gap between the ZAN-SDI and BLUE-ZAN interventions in Zanzibar), as well as for scaling up successes and for promoting the involvement of non-governmental organisations and local institutions working on connected themes in the same locations. That these shortcomings can be corrected is shown by the inclusive nature of Syke's ZAN-SDI and BLUE-ZAN ICI projects, and by dialogue with other donors about a follow-on to Geological Survey of Finland's VietMAR ICI project in Vietnam, but making these things easier to accomplish would enhance the usefulness of the instrument itself. Wide consultation among MFA staff and other knowledge-holders would be an appropriate starting point if options for reform are to be developed.

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In addition to the references listed above, the evaluation team consulted project-specific documentation made available during the evaluation process.

Annex 1: Methodology and analytical process

Overall approach and theory of change

The sub-sector evaluation aims: (i) to explore beyond the project and programme level to shed light on aggregate and catalytic effects and synergies between actions, actors, instruments and policy-influencing activities within and across the sub-sector; and (ii) to establish how these encourage and enable wider changes at geographic, sectoral and/or institutional scales, including the role of private sector development and implications for the portfolio and policy level. Its design concept is that of a 'theory-based', 'macro-level' and 'realist' evaluation. Being **theory-based,** it is built upon a theory of change embracing the logical connections between inputs and instruments, short-range, medium-range and long-range results, and impacts, and hence emphasising the plausibility of assumptions and causal links between steps in the design logic. Being **macro-level**, it focuses on development cooperation across multiple interventions, locations, and the 15 years of 2010–2024. And being **realist**, it is embedded within a theory of change that is grounded in the large-scale, long-term development context that applies to those same multiple interventions, locations, and years.

As explained in Chapter 2, this approach requires the use of macro-level definitions of OECD/Development Assistance Committee performance criteria such as effectiveness, impact and sustainability, rather than the intervention-level definitions that are applied to individual projects. It also requires a theory of change that robustly reflects current realities of large-scale context, that embodies logic supported by evidence, and that covers all the main pathways of cause and effect by which results can be obtained in the sub-sector. The existing sub-sectoral theory of change (MFA, 2023) was therefore reviewed during the inception phase (28 Nov 2024 to 11 Mar 2025), and an updated theory of change prepared based on assumptions in Table 8. Interventions funded wholly or partly by MFA were then assessed against the short-, medium- and long-range results in the theory of change. These results were defined respectively as (i) the initial or 'first generation' results, (ii) the later or 'second generation' results, and (iii) the strategic consequences leading to impact.

The evaluation team adopted the EQs outlined in the terms of reference, with EQs 1 and 2 being specifically designed for the sub-sector evaluations, and thus answered in this report. EQs 3 and 4 will be addressed in the synthesis report. To ensure a structured and transparent approach to evidence collection and analysis, the evaluation team developed a matrix that divided each EQ into more manageable sub-EQs and listed the types of evidence required to answer each, the methods used to collect that evidence, and the data sources to be consulted. The matrix thus served as a central tool to guide both data collection and analytical consistency across the evaluation. The following methodology was applied to support the triangulation of findings in Chapter 4 of this report and to support development of the conclusions in Chapter 5.

Table 8 Assumptions and logical steps in the theory of change for the Water as a Natural Resource sub-sector

From long-range results to impact:

- Improved laws, policies and practices to avoid and resolve conflicts over water resources among public and private actors at local, subnational, national and transboundary scales.
- Sustainable budget allocations for integrated water resources management to support long-term management of ground waters and catchment, wetland and surface water ecosystems for security, water quality and biodiversity.
- Political environment in partner countries permits policy coordination and consensus around integrated water resources management needs and actions, including .
- Geopolitical conditions support continued shared priorities on sustainable development (e.g. SDG 6) and climate change (e.g. Paris Agreement), and do not introduce major new barriers to cooperation.

From medium-range to long-range results:

- Increased national capacity to support effective management:
  - of catchment ecosystems to ensure water security and environmental resilience for all downstream communities and businesses.
  - of catchment, wetland and surface water ecosystems to maintain high environmental standards of water quality and biodiversity.
  - of aquifers to ensure sustainable rates of recharge and use by all communities and businesses requiring groundwater.
- Strong human rights-based and social inclusion elements programmed into interventions, allowing approach towards locally-appropriate and locally-owned Sustainable WASH for All (SW4A) and Early Warnings for All (EW4A), including those most marginalised.
- Policy coherence informed by water-related economic values at country level, with key integrated water resources management sectors (agriculture, forestry, energy and water) and stakeholders (all levels of government, institutions, public) fully involved.
- National political environment in partner countries permits continued investment in inter-ministerial dialogue, social inclusion and constructive negotiation with transboundary stakeholders.

From short-range to medium-range results:

Increased national research and knowledge management capacity to meet needs:

- for guidance on policies, laws and practices related to integrated water resources management;
- for public education, awareness raising and participation on integrated water resources management.

- Increased national capacity:
  - to appreciate and integrate the value of integrated water resources management to all economic sectors (e.g. at the national economic planning ministry);
  - to negotiate fair and inclusive agreements on water use rights and catchment management responsibilities;
  - to anticipate climate change effects and mitigate them through improved management of water-bearing ecosystems.
- National political environment in partner countries permits continued investment in building national capacity for research, knowledge management, policy development, inter-ministerial dialogue and holistic integrated water resources management

From inputs/instruments to short-range results:

- Use of MFA funds and instruments (e.g. ICI) to support national research efforts:
  - on catchment, wetland and surface water ecosystems and aquifers;
  - on water governance (use rights and catchment management responsibilities and priorities); and
  - on climate change effects on water resources and on how to mitigate their impacts.
- Use of MFA funds and instruments (policy dialogue, diplomatic resources and regional interventions) to promote:
  - sub-national agreements on integrated water resources management, including payments for ecosystem services ('user pays') arrangements to ensure catchment management; and
  - agreements between sub-national regions and countries on transboundary governance/management of water resources.
- Use of MFA funds and instruments (e.g. bilateral and multi-bi projects) to ensure:
  - integrated management of water resources in WASH projects at adequate (catchment) scale to maintain robust supplies; and
  - improved community, public and private sector capacity to deliver basic and safely managed drinking water.

National political environment in partner countries and Finland permits continued recognition of and investment in:

- ecosystem functions and roles in environmental security, robust water supplies and climate change resilience;
- gender equity and social inclusion and human rights-based approach priorities of inclusion, fairness and sustainability; and
- cooperation with development partners in areas of mutually-agreed action.

Source: Evaluation team

Portfolio review

A review of MFA's portfolio was carried out for two purposes: (i) to delineate the four relevant sub-sectors while gaining a better understanding of their characteristics, such as geographic distribution, channels and instruments; and (ii) to lay the groundwork for establishing the evaluation sample (see 'Desk studies and organising evidence' below). For the first purpose, the evaluation team started by 'cleaning' the data in a spreadsheet received from the Development Evaluation Unit (EVA-11) of MFA on 19 November 2024. The dataset spanned the years 2015 to 2022 and included 2,746 rows of data, representing 2,124 interventions with unique donor project numbers. The first step involved categorising interventions as either 'in scope' or 'out of scope'. All interventions in the natural resources policy priority area (labelled '4' in the spreadsheet) were included in the scope. As not all interventions had such a number, particularly earlier ones, sector codes were used to classify these. Keyword searches were also used to identify individual interventions for inclusion.

Interventions deemed relevant to the evaluation were further assigned to the sub-sectors, mostly guided by sector codes. Those with an identifiable environment and natural resources focus but not clearly linked to any sub-sector were categorised as 'general'. Interventions with explicit objectives in agriculture or exclusive focus on sanitation and/or hygiene were excluded, as specified in the terms of reference. The resulting sub-sector portfolios were reviewed and validated by the sub-sector teams, yielding a final Environment and Natural Resources portfolio comprising 286 interventions. Sub-sector specific portfolios were then extracted and provided to the sub-sector teams to inform their work.

Three constraints were applied to the data for analysis. First, only **commitment data** (*myönnöt*) were used, as they were considered more informative than disbursement data. Second, where interventions had **multiple purposes**, including elements related to other sectors, only the share of resources allocated to one of the Environment and Natural Resources sub-sectors was included in the portfolio. Third, to improve the clarity of graphical presentations of the portfolio's geographical distribution, country commitments below EUR 1 million were aggregated under the category of 'Other'. Finally, only ten **delivery channels** were used to characterise the portfolio: Development Funds; Finnish Government and Embassies; international financial institutions; Multilateral and Intergovernmental Organisations; non-governmental (non-profit) organisations; Private Sector; Recipient Governments; Research and Academic Institutions; United Nations (UN) Agencies; and Other.

As the portfolio review used a dataset for the years 2015–22, it included neither the oldest nor the most recent interventions in the time-scope of the evaluation (2010–24). To correct for this, some of these older and younger interventions were included in the moderate and intensive studies. As interventions initiated in 2023 or later were unlikely to demonstrate measurable results, particularly long-term impacts, their main contribution here was in assessing design relevance. Older interventions presented other challenges, in terms of missing documents and informants, or limited recall of details by knowledge-holders. Even so, these interventions remain relevant for assessing relevance, impact and sustainability and were mostly assessed through existing evaluation evidence and documentary materials.

Since the data received from the MFA covered Finland's exclusive ODA budget, which is administered by the MFA, it excluded Finnfund investments. These investments were, however, considered significant for Finland in the area of Environment and Natural Resources and as a part of the private sector engagement intensive study on Finnfund (annexed to the evaluation's synthesis report), a

portfolio analysis of Finnfund's investments in the sector was conducted. This was based on data received from Finnfund on 4 April, 2025, which covered their Environment and Natural Resources investments in 2015–2023.

Sampling

A purposive and tiered sampling approach was used to select interventions for moderate and intensive studies, balancing interventions that were mature enough to yield meaningful insights while excluding those too recent to show results and those too distant in time to be effectively analysed. Interventions for moderate and intensive studies were prioritised based on recommendations by the Reference Group and on the interventions' likely ability to provide substantive findings on effectiveness, impact and sustainability, ensuring a focused and methodologically sound assessment. By making it possible to select interventions to ensure balanced coverage of context, instrument and geography, the review allowed the evaluation to proceed with a robust evidence base.

Extensive document analysis

It was agreed with EVA-11 from the outset that the evaluation would rely primarily on secondary data. As there was vast amount of policy papers, evaluation reports and other reports, intervention level documentation, etc., a structured and systematic approach to retaining and storing information was needed. A standard system for consistent collection and organisation of evidence by all evaluators was developed in the inception phase, and further refined in the implementation phase (12 Mar to early Oct 2025). This structured library resource was then available to support natural language processing (see below) as a way to find and organise dispersed references to relevant topics.

Desk studies and organising evidence

A sample of each sub-sector portfolio was explored through 'moderate' and 'intensive' desk studies. The sample was built based on recommendations by EVA-11 and the Reference Group, and supplemented with other interventions to ensure that all key MFA instruments and channels were covered. The main source of information for each of these past and on-going interventions was the most recent of an annual report, a mid-term review, a final report or a final review. In each moderate study the reviewer searched the key document for evidence of: (i) achievements; (ii) connections, synergies and policy-relevant effects; (iii) private sector engagement opportunities; and (iv) Finnish added value, and organised the evidence in a project results framework (proforma; Table 9). Additional documents and other sources (such as informants) were also used to the extent that the reviewer felt necessary to capture useful evidence.

Table 9 Structure of the proforma used to organise evidence in moderate studies

Sub-sector; name of intervention:	
Document(s) reviewed:	Reviewer:
Narrative overview: scale and kind; details on location, duration, modality, budget.	
Development/environment achievements.	
Connected interventions, synergistic and policy-relevant effects.	
Finnish private sector engagement opportunities.	
Finnish added value.	
Other observations.	
References.	
Acronyms and abbreviations used in the proforma.	

Source: Inception Report. The proforma was colour coded to aid data compilation

A small number of interventions were chosen for intensive study because of their clear importance for major policy-relevant themes and future priorities in the Environment and Natural Resources policy area. They tended to be complex actions or engaged in complex areas of work, with many implications for policy, practice and partnership, so they needed more thorough investigation than the others in the sample. In these intensive studies, project documents and evaluations provided by MFA were used as a starting point, but multiple interviews with knowledge-holders were also undertaken along with extensive web searches. Evidence obtained from all sources in all intensive studies was organised in a slightly more extensive proforma (Table 10). A library of proformas was accumulated during the evaluation that was used as a reference for analysis and reporting. Table 1in Chapter 2 lists all completed studies, along with four additional 'limited' studies that helped complete sub-sector coverage by examining certain topics of particular importance.

Table 10 Structure of the proforma used to organise evidence in intensive studies

Sub-sector; name of intervention:	
Document reviewed:	Reviewer:
Narrative overview: scale and kind of the intervention; details on location, duration, modality, budget.	
Development/environment achievements of MFA in target location.	
General achievements resulting from MFA intervention.	
MFA achievements that involved private-sector actors.	
Lessons learned from MFA achievements and failures.	
Finnish private-sector engagement in Finland or target location.	
Achievements resulting from Finnish private sector engagement.	
Lessons learned from Finnish private sector engagement achievements and failures.	
Opportunities identified for Finnish private sector engagement in future.	
Finnish added value.	
Other observations.	
References.	
Acronyms and abbreviations used in the proforma.	

Source: Evaluation team. The proforma was colour coded to aid data compilation

Interviews and survey

Interviews helped to correct information gaps, and also added depth to an understanding of MFA's intervention logic. Their role was to enrich the proformas (especially those compiled for intensive studies), and to provide additional context on partnerships, implementation experience, programming and policy priorities. Interviewees were categorised into three main groups, and in the Water as a Natural Resource sub-sector they comprised 15 policy-level, 20 intervention-level, and six private-sector knowledge-holders. These were individuals working at public research institutions both Finnish (6) and non-Finnish (2), MFA headquarters and embassies (14), Finnish consulting firms (5) and other private-sector actors both Finnish (3) and non-Finnish (2), international organisations (6), and Finnish non-governmental organisations (3). A full list of interviewees with institutional affiliations was submitted to EVA-11, and an anonymised list is in Annex 5.

Cutting across the sub-sectors, a private sector engagement survey engaged 19 respondents. The first invitation wave for the survey was launched on 21 May 2025, followed by two more invitation waves. The invitation was sent to a total of 212 recipients. By 21 July 2025, the survey received 19 responses. Most of the respondents were private companies, but there was also one association and one public research institution among them. Nearly third of the respondents (32%/6 organizations) were active in water sector, four of them in construction, two in soil and minerals, two in environmental monitoring, and the rest in other industry sectors. A succinct report of the survey's results is annexed to the evaluation's synthesis report.

Like-minded peer country review

A study of comparable actions by like-minded peer countries focused on 'partnerships for just and sustainable water' in Finland, Ireland, the Netherlands, Sweden and Switzerland, and is reported in Annex 2. Information sources included national policy documents, institutional websites, peer-reviewed literature and strategic evaluations. In Finland's case, the review was informed by proforma analysis, internal government documentation, and interviews with representatives of relevant institutions. For peer countries, publicly available documentation was triangulated with expert consultations and official websites. A comparative framework was developed to allow the analysis to identify convergences and divergences across institutional models, as well as lessons applicable to Finland's evolving water diplomacy architecture.

Market analysis

A brief, general-level business and market opportunity analysis was conducted focusing on the markets with specific country-focus covered by the sampled interventions' intensive studies in each sub-sector. It provided information regarding the local context and business environment, demand and competition within the sub-sector, and a description of the Finnish companies' offer relevant to the market demand. Its purpose was to provide evidence and insights with which to support answering EQ 2.1: *What concrete and context-specific opportunities, entry points and models are there for Finland for partnering with Finnish and local companies and economic actors within the sub-sector topic(s) in the next five years?*

The market analysis was based on information gathered as part of the Water as a Natural Resource sub-sector study, which included desk review, interviews with representatives of MFA,

government, consulting firms and international organisations familiar with the target location, as well as supplementary online research on market conditions and opportunities there. It used the following template which indicates the focus of inquiry in the form of its headings:

Summary:
1. Local context and business environment
1.1 Description of the focus area
1.2 Status in the country
1.3 Focus-area development needs and challenges
1.4 General private-sector business environment
2. Demand within the focus area
2.1 Typical client/customer segments
2.2 Scale of demand and 5–10-year outlook
2.3 Regional differences (if any)
3. Competition/Current offering within the focus area
3.1 Key companies active in the sector
3.2 Estimated current market size reached by businesses
4. Finnish companies' offer
5. Conclusions
References/documents reviewed:

Natural language processing

Natural language processing was used to search through over 140 evaluation reports provided by EVA-11 in the inception phase to identify and structure content related to the evaluation's sub-sectors. The approach enabled the evaluation team to explore document content efficiently, going beyond keyword searches to understand the broader thematic coverage. All documents were digitally processed to extract usable text content, accounting for the wide variety of formats and layouts. In cases where the text could not be extracted directly (e.g. scanned or stylised PDFs), automated character recognition tools were applied to retrieve the information. The extracted content was cleaned and standardised to ensure it could be analysed consistently across the corpus.

A modern topic modelling technique was used to classify text segments into pre-identified sub-sectors relevant to the evaluation, such as water, energy, biodiversity, and the private sector. Based on advanced language models capable of recognising context and meaning in full sentences rather than individual words, this approach enabled more accurate thematic classification. The unsupervised method required no pre-labelled data and was refined through iterative testing and expert feedback. Reliability was ensured through verification steps, including visual checks of common topic terms, targeted document reviews, and random sampling to assess thematic consistency. Expert reviewers validated topic assignments and refined category definitions as needed.

The results were integrated into an interactive dashboard that enabled the evaluation team to filter, combine, and explore content by sub-sector, helping to identify patterns, gaps, and areas of emphasis. The technique was used to structure information rather than replace expert judgement, supporting targeted desk reviews and further analysis. It improved efficiency in handling large volumes of text and allowed clearer thematic comparisons than conventional keyword searches.

While offering substantial benefits, the approach required significant testing, validation, and expert input to ensure interpretability, and natural language processing was applied as a complementary tool rather than a stand-alone evaluation method.

Use of artificial intelligence

AI has been used in this report as a search tool to identify relevant material especially for the market analysis research, including targeted searches to provide comparative insights and background information. AI tools were also occasionally applied for language support, including proof-reading and enhancing the clarity, coherence, and readability of the text. All sources and outputs generated through AI have been fully reviewed, verified, and adapted by the authors, ensuring that the final content reflects accurate analysis, aligns with the evaluation findings, and maintains the authors' own judgments and conclusions.

Triangulation

The evaluation synthesised evidence through a structured, multi-source approach to ensure the reliability and depth of findings. A comprehensive desk review formed the foundation, covering programme documents, annual reports, evaluations, and strategic guidance. This was complemented by semi-structured interviews with MFA staff, implementing agencies, Finnish embassies, partner-country stakeholders, and private-sector representatives, which provided qualitative insights into both successes and bottlenecks. The proformas were used to organise evidence and systematically analysed to capture reported outputs and outcomes, while like-minded peer country comparisons offered a benchmark for understanding Finland's positioning relative to donor peers, highlighting areas of convergence, differentiation, and potential learning. The evidence was then triangulated and synthesised to ensure that findings and conclusions were grounded in multiple perspectives. Insights from proformas and like-minded peer country comparison were cross-referenced with interview evidence to validate reported results and uncover gaps, while contextual factors were incorporated to explain variations in performance. This layered synthesis enabled the evaluation to integrate quantitative data, qualitative findings, and comparative insights into a coherent narrative.

Limitations

No great difficulties were encountered in any aspect of the Water as a Natural Resource sub-sector evaluation. Hence limitations of the approach lie chiefly in the resources of the evaluation itself, which did not allow for full exploration of every intervention, including its context, history, progress, impacts, implications and connections with every aspect of policy and related activities by all development partners and the government in each location. Professional judgement was used to target attention on key matter

Annex 2: Comparable actions by like-minded peer countries

Introduction

The topic of comparison here is that of 'partnerships for just and sustainable water', which includes all relevant combinations of public and private actors and investments. It is understood that successful partnerships follow certain rules, of mutual understanding, dialogue, respect, reciprocity, shared goals and mutual aid, and are maintained by forums and accepted norms of behaviour. This concept seems well established among the five 'like-minded peer countries' considered here: Finland, Ireland, Sweden, Switzerland, and the Netherlands.

The like-minded peer countries were chosen for the following reasons: Switzerland based on the team's prior evaluation knowledge (Caldecott & Olding, 2022); Sweden and the Netherlands based on their strong international reputations for water resource management confirmed by interviews in the present evaluation; and Ireland based on its Water Forum (*An Fóram Uisce*[28]) which offered a point of comparison with the Finnish Water Forum.

Finland's approach to water partnerships is articulated in the Finnish Water Way and put into effect in ways explored in the Water as a Natural Resource sub-sector report. This annex compares certain aspects of the approaches taken by like-minded peer countries for addressing Water as a Natural Resource issues in a comprehensive and balanced way, internally and externally. The various arrangements that these countries have made in the water sector are highlighted in Table 11.

Water expertise

From s it can be seen that all five countries possess key centres of water excellence in their universities and government-owned or -subsidised research institutions. It is not feasible to compare these institutions by the quality of teaching and research with available information,[29] but it is notable that with at least eight such centres of excellence Finland has by far the most institutionally-dispersed formal water expertise.

This could be drawback, were the institutions not so closely networked, including through the Finnish Water Forum and collaborative projects such as Digital Waters. But as it is, this arrangement is probably advantageous because each institution brings its own multisectoral and multidimensional perspective, and its own diverse staff, collaborators and funding sources, to bear on water

28 *Uisce* is pronounced 'Ishka'.

29 Current ranks are available for 2,855 "research-intensive institutions from 115 countries and territories" (THE, 2025) and by this measure Finland, Sweden and Switzerland have the highest-ranking universities in this sample (in the 100-200th range), and all of the others rank lower than 800th.

issues. In this arrangement there is little sign of interference among the participants, and many indicators of synergy.

Rather the main drawback is the lack of a single, high-profile hub (like the Stockholm International Water Institute in Sweden or the Geneva Water Hub in Switzerland) to represent and provide access to the national community of water interests. For Finland, the Finnish Water Forum or Special Envoy might seem to offer a point of contact for all water-related purposes, but neither has the capacity for this role.

Table 11 Overview of water sector arrangements per country

CENTRES OF EXCELLENCE	FINLAND	IRELAND	SWEDEN	SWITZERLAND	NETHERLANDS
Universities	Aalto, Oulu, Turku	Dublin City (DCU-WI)	Uppsala (RSWIWC)	Geneva	IHE Delft
Research institutions	Syke, Luke, Finnish Meteorological Institute, VTT, GTK	National Environmental Research Coordination Group/Environmental Protection Agency (National Water Action Plan).	Stockholm International Water Institute; Stockholm Environment Institute	Geneva Water Hub	Deltares
National statutory (advisory) body	-	An Fóram Uisce (27 members, 16 sectors)	-	-	-
non-governmental organisation forums	-	Sustainable Water Network (25 non-governmental organisations)	-	-	-
Inclusive forums	Finnish Water Forum (130 members).	-	Water Wise Societies (76 members).	Swiss Water Partnership (70 members).	Netherlands Water Partnership (180 members).
Internal coordination	Finnish Water Way (national cooperation aspects); Finnish Water Forum government members; Centres for Economic Development, Transport and the Environment.	Uisce Éireann; Environmental Protection Agency; Office of Public Works; Department of the Environment, Climate and Communications; national and regional water plans.	"No strategy" (Thybell & Nielsen 2025).	Federal Office for the Environment plus the Agenda 2030 Steering Committee.	Ministry of Infrastructure and Water Management (Rijkswaterstaat for internal coordination).
Internal context	Bioeconomy Strategy; Circular Economy Roadmap.	The Circular Economy Programme 2021-2027.	Circular Economy Transition Strategy.	Circular Economy; 2030 Sustainable Development Strategy.	National Circular Economy Programme 2023-2030.
External coordination	Finnish Water Way (international aspects).	-	Swedish Water House International Policy team.	Geneva Water Hub (48 partners).	Netherlands International Water Ambition.

CENTRES OF EXCELLENCE	FINLAND	IRELAND	SWEDEN	SWITZERLAND	NETHERLANDS
International water commissions	Russia (1).	(0).	(0).	Rhine, Rhine Basin, Italy, Lake Constance, Lake Geneva, (5).	Rhine, Rhine Basin, Meuse, Scheldt (4).
Special envoys	Water, Climate	Climate	-	Water	Water
Dedicated International funding	UNECE Water Convention (1st largest core donor).	-	-	UNECE Water Convention (2nd largest core donor).	Water Sector Fund (European Investment Bank).
Water for Peace	Water for Peace network (plus Centre for Peace Mediation, Crisis Management Initiative).	PEACEPLUS (island of Ireland).	Water and peace theme at Stockholm International Water Institute; World Water Week.	Blue Peace Initiative, Index and Financing Initiative.	Water, Peace, & Security Partnership at the Hague Centre for Strategic Studies.

Sources: for Finland, relevant proformas and interviews; for others, relevant web-sites, downloaded documents and interviews

Forums and internal coordination

Four of the like-minded peer countries have **voluntary inclusive forums** that include many sectoral non-governmental organisations, private companies, official agencies and other interest groups (the Finnish Water Forum; Sweden's Water Wise Societies; the Swiss Water Partnership; and the Netherlands Water Partnership; each with 70–180 members[30]). In Finland's case there are also five other networks that overlap in membership with each other and with the Forum.

- Water Cluster Finland partners the EU-funded CircInWater Eurocluster and has as its members 32 small and medium-sized enterprises and start-ups, 15 larger companies[31], five research centres (CEMIS, Kajaani University of Applied Sciences, Oulu University of Applied Sciences, the University of Oulu, and VTT) and four others (Business Oulu, Centres for Economic Development, Transport and the Environment, Oulu Waterworks, and Oulo Regional Council).
- The others comprise the Kuopio, Oulu and Turku regional water clusters and the Blue Economy Mikkeli Center of Excellence.

The sole exception to this kind of arrangement is Ireland, which instead has a national statutory body (*An Fóram Uisce*, The Water Forum). comprising 27 members representing 16 sectors,[32] supplemented by the Sustainable Water Network, a separate umbrella for 25 water-related non-governmental organisations, and by the single national water and wastewater service provider *Uisce Éireann* (formerly Irish Water).

Internal coordination is promoted in Finland by the five ministries that participate in the Finnish Water Way and Forum, complemented regionally by the Centres for Economic Development, Transport and the Environment (also known as ELY Centres). The challenge is addressed in various ways elsewhere.

- In Ireland, through a regional and national water resources planning process led by Uisce Éireann (2021; Boyle *et al.* 2021).
- In Sweden, through arrangements that have been criticised by Thybell & Nielsen (2025) who note that there are "five water authorities that coordinate management under the EU Water Framework Directive [while] responsibility for water remains fragmented across agencies, sectors and governance levels" and call for a "shift from crisis response to forward-looking planning. From fragmented mandates to a systemic approach. Water must be given a central role in Sweden's climate adaptation strategy and be linked to agriculture, energy and land use planning."
- In Switzerland, by the Federal Office for the Environment and the 2030 Agenda Steering Committee.

30 This is the same range of group sizes that many lines of evidence suggest is the typical operating optimum for human communities of any kind (Dunbar, 1993, 2021).

31 Larger corporate members of WCF are: AFRY, Digita, Econetgroup, Grundfos, Kemira Industry & Water, KL-Lämpö, Onninen, Outotec, Pipelife Finland, Ramboll, Sweco, Trimble Solutions, Uponor, WSP, Xylem.

32 Members of An Fóram Uisce represent: Agriculture (4), angling, business, community/voluntary (2), education, environment (5), fisheries/aquaculture, forestry, domestic water users (2), recreation, rivers trusts, rural water (2), social housing, tourism, trades unions and youth/students.

- And in the Netherlands, by the Rijkswaterstaat component of the Ministry of Infrastructure and Water Management.

These internal coordination arrangements are shaped in each country by strategic directions of travel towards a **circular economy** and similar sustainable development objectives.[33]

Coordination of external actions

For the vital and challenging role of promoting **interministerial cooperation on external actions**, Finland has the most advanced and dedicated arrangement. This is built around the five ministries that participate in the Finnish Water Way, and which have learned to work very closely together on international strategy since at least 2018.

The challenge is not specifically addressed in Ireland, where Water as a Natural Resource is a very minor ODA item (although a Special Envoy for Water has been appointed), but is addressed in various ways elsewhere.

- In Sweden, by Swedish Water House and the International Policy team under the auspices of Stockholm International Water Institute, supplemented by the annual Stockholm Water Week that promotes dialogue among international actors, and Stockholm International Water Institute also (uniquely among these like-minded peer countries) promotes inclusion of Indigenous peoples in transboundary water agreements (Goldie-Ryder *et al*., 2024).
- In Switzerland, by the Geneva Water Hub, with its 48 strategic and international partners (national and international foundations and other bodies for peace, rights, Water as a Natural Resource sustainability and environmental security, including a range of UN agencies).
- In the Netherlands, by the international water policy, Netherlands International Water Ambition, which was developed by four ministries (Infrastructure and Water Management, Foreign Affairs, Economic Affairs and Climate Policy, and Agriculture, Nature and Food Quality) and supported by the Partners for Water Programme (PVW-IVWW) subsidy scheme for 2022–27.

Participation in **international water commissions** reflects factors of geography, history and the sharing of surface and ground waters across borders. Finland has such a commission with Russia, which has met annually since the mid-1960s. Switzerland participates in similar commissions for the Rhine river and basin (in both of which it is joined by the Netherlands),[34] for lakes and rivers that mark or cross the border with Italy (including the Doveria, Melezza, Giona, Tresa, Breggia, Mera, Poschiavino and Spöl),[35] and for two major lakes with international catchments (Geneva

33 For Finland, see Government of Finland (2022), Sitra (2024), and ETC-CE (2024a); for Ireland, see Government of Ireland (2024), Social Justice Ireland (2024), and ETC-CE (2024b); for Sweden, see Government Offices of Sweden (2020) and ETC-CE (2024c); for Switzerland, see Circle Economy (2023) and ETC-CE (2024d); and for the Netherlands, see Government of the Netherlands (2023) and ETC-CE (2024e).

34 The Central Commission for the Navigation of the Rhine was established in 1815 and its current members are Germany, Belgium, France, the Netherlands and Switzerland (https://ccr-zkr.org/11010100-en.html). The International Commission for the Protection of the Rhine was founded in 1950; current members are Switzerland, France, Germany, Luxemburg, the Netherlands and the European Commission; and there are also cooperation arrangements with Austria, Liechtenstein, Italy, and the Belgian region of Wallonia (https://www.iksr.org/en/icpr/about-us/history).

35 The Commissione Internazionale per la Protezione delle Acque Italo-Svizzere, since 1972 (https://www.cipais.org/web/)

and Constance).[36] The Netherlands also participates in such commissions for the Meuse and Scheldt rivers.[37]

Finland, Ireland, Switzerland and the Netherlands have each appointed a **special envoy for water** (and Finland also has a special envoy for climate), while Sweden concentrates on supporting the work of the UN Special Envoy for Water. In terms of **dedicated international water-related activity**, both Finland and Switzerland are longstanding core donors to the UNECE Water Convention (being respectively the first and second largest in terms of contribution). This is a vital and growing part of the international community's efforts to achieve the SDGs and preserve a habitable biosphere for everyone.

The effectiveness of the UNECE Water Convention was assessed by Morris-Iveson *et al*. (2022) in their evaluation of Swiss Agency for Development and Cooperation-supported transboundary water governance actions, and it was found to be "highly relevant, effective and coherent in terms of creating a favourable environment for countries to negotiate transboundary water management agreements" (page 7). Switzerland was also responsible for proposing the opening of the Convention in 2016 – a process that led to Finland being involved in a successful accession twinning arrangement with Namibia, with several other African countries later requesting similar support. Meanwhile, the Netherlands is the sole contributor to the Water Sector Fund at the European Investment Bank, while neither Sweden nor Ireland have allocated funds to any dedicated international water-related activity.

Water for peace

An interest in the role of **Water as a Natural Resource in conflict and the causes of conflict**, and conflict avoidance and peace-building processes, is a defining quality of all five like-minded peer countries. Finland has a Water for Peace network (Rautavaara, 2025), which comprises about 150 people in various non-governmental organisations, corporates and agencies. Whenever a water issue arises the network can assemble a task force of interested members to engage with it (10–12 such issues are under observation at present). In some cases the network's members may make themselves available to help EU Special Representatives in the respective region; in others they offer support or act as observers; and in some they maintain channels of dialogue with and/or between hostile or proscribed parties. Other parts of Finland's water diplomacy ecosystem include:

- the MFA's Centre for Peace Mediation (at which the Special Envoy for Water is based);
- the Crisis Management Initiative of the of the Martti Ahtisaari Peace Foundation (Crisis Management Initiative, which was formerly chaired by the current President of Finland);
- Finn Church Aid (Finland's largest international aid organisation); and
- the Finnish Institute for International Affairs (which recently partnered with Syke on the Water Cooperation and Peace project, funded by three Finnish ministries).

36 The International Commission for the Protection of the Waters of Lake Geneva, since 1963 (https://www.cipel.org), and the Internationale Gewässerschutzkommission für den Bodensee, since 1959 (https://www.igkb.org).

37 Both the International Meuse Commission and the International Scheldt Commission were established in 2002 upon signature of the Meuse Convention (Treaty of Ghent) by the Walloon Region, the Netherlands, France, Germany, the Flemish Region, the Brussels Capital Region, Belgium and Luxembourg (https://en.vmm.be/water/international-river-commissions#section-0).

The Netherland's approach is based on the **Water, Peace and Security** partnership. This comprises six organisations that specialise in environment, development and international security: IHE Delft, the World Resources Institute, Deltares, The Hague Centre for Strategic Studies, Wetlands International and International Alert, funded by MFA Netherlands. The Water, Peace, & Security Partnership group collaborates with other institutions, including Oregon State University (which participates with IHE Delft and the University for Peace in Costa Rica in offering a joint Master of Science Programme in Water Cooperation and Diplomacy), and the Netherlands Institute of Foreign Relations.

Sweden supports a strong water and peace theme at Stockholm International Water Institute that brings together the peace, security, climate and development themes of research and dialogue. The **Stockholm Water Week** in August each year is used as a venue for Stockholm International Water Institute's High-Level Panel on Water Diplomacy, and there is a Stockholm International Water Institute policy to facilitate dialogue at all times in support of water diplomacy (Klimes & Yaari, 2019). These items were assessed along with other aspects of the Stockholm International Water Institute's performance by Peebles *et al*. (2024). They found the institution's work to be effective in the areas of water governance-related capacity development, dialogue facilitation, knowledge generation and tool provision. But they also found serious weaknesses in oversight, reporting and response to criticism, which had undermined trust by the Swedish International Development Cooperation Agency and government.

In Northern Ireland, what are known as the Troubles were a legacy of the 1921 partition of the island of Ireland and ended with the peace agreements of 1998. An important part of this peace process is **PEACEPLUS**, a EUR 1.1 billion (2021–27) funding programme supported by the EU, United Kingdom, Ireland and Northern Ireland to promote peace and prosperity in Northern Ireland and the border regions of Ireland (SEUPB, 2021). PEACEPLUS includes dedicated funding for joint projects on improving water quality and catchment management.[38]

The Swiss water for peace flagship is **the Blue Peace initiative**.[39] This is a long-term vision and diplomatic initiative by the Swiss federal government and Swiss Agency for Development and Cooperation to promote water cooperation across borders, sectors and generations. Its conceptual foundations lie with the Strategic Foresight Group in 2010–11 (SFG, 2025) as consolidated in 2015–18 by the Global High-Level Panel on Water and Peace (2017)[40]. It seeks transformation through policy dialogue, trust building and the enabling environments by enhancing dialogue in neutral spaces, using technical exchanges to provide leverage for high-level diplomatic discussion, and long-term capacity building.

Blue Peace uses a variety of diplomatic, political, financial, economic tools to encourage innovative thinking on water resources management, while offering a toolbox for systematic transboundary water cooperation at multiple scales. It has developed chapters in Central Asia, the Middle East, West Africa and globally, while also working with the UNECE Water Convention Secretariat, IUCN,[41]

38 Grants include EUR 32 m in 2024 for the 'Water Enhancements through Sustainable Treatment' (WEST) project, and EUR 21 million in 2025 for three other projects: 'Protecting Shared Waters' (PSW), 'Catchment Action for Local Management' (CALM), and 'For the Love of Our Waters' (FLOW).

39 (a) https://www.thebluepeaceinitiative.org/about-blue-peace-who-we-are.html; (b) https://sdgs.un.org/partnerships/promoting-transboundary-water-cooperation-blue-peace-initiative.

40 Cultural innovations alongside the High-level Panel's work included a Symphony for Water and Peace.

41 IUCN's 'Building River Dialogue and Governance' (BRIDGE) project in 12 transboundary river basins.

UNESCO,[42] the Geneva Water Hub, and other actors such as the Mekong, Senegal and Gambia river commissions (Mekong River Commission, Senegal River Basin Organisation, Gambia River Basin Organisation respectively). Each Blue Peace chapter works in different ways and at different levels, and each spins off other projects to meet particular regional needs. For example, Swiss Agency for Development and Cooperation's Central Asia Blue Peace programme, supported by the Regional Environmental Centre for Central Asia, led to several spin-off projects to promote cooperation on the mountain cryosphere (high-altitude ice and snow), a core determinant for water and disaster risk management (Caldecott & Olding, 2022).

The whole Blue Peace approach seeks engagement with complex and dynamic systems at the continental and global scale, while also addressing the lived experience of people and communities. For Swiss Agency for Development and Cooperation to facilitate progress despite this complexity is exceptionally demanding. For this reason, Blue Peace was described as "extraordinarily ambitious" by Caldecott & Olding (2022), who also reported the views of several interviewees that it could be a model for development cooperation going forward. This is because they saw it as a way to respond effectively and realistically to the great complexity of ecological, economic and institutional systems. For the same reason, however, such an approach requires partners and advisers who are able to deal with thematic complexity at extreme scales, and finding and recruiting these can be hard.

As well as generating projects to address issues identified by Blue Peace stakeholders in each region, the initiative has also led to more strategic measures developed with Swiss Agency for Development and Cooperation leadership and support. One such is the **Blue Peace Index**, which was jointly developed with the Economist Intelligence Unit (2020). It is designed to show the extent to which shared water resources are being managed fairly, collaboratively and sustainably across international boundaries and river basins, and hence to inform efforts to improve these things. The current (first) edition of the Blue Peace Index is based on 74 qualitative and quantitative indicators for 30 countries in seven transboundary river basins.[43] All the indicators were chosen to meaningfully reflect national 'agency', so exclude purely hydrological and geographical indicators. They cover five domains: policy and legal frameworks; institutional arrangements and participation; water management instruments; infrastructure and financing; and cooperation. Findings are summarised in Table 11.

Another spin-off is the **Blue Peace Financing Initiative**, developed jointly by Earth Security Partnerships and Swiss Agency for Development and Cooperation (ESP, 2018). This led to the launch of a Blue Peace Bond by the UN Capital Development Fund and Swiss Agency for Development and Cooperation, with the aim of mobilising up to USD 2 billion to put into effect Gambia River Basin Organisation's masterplan for the Gambia river basin (UNCDF, 2023). The underlying idea is to provide a new financial incentive for countries to develop binding agreements on the sustainable management of shared resources, thus reducing social, political, economic, and environmental risks and conflicts. It also seeks to encourage actors in the financial sector to see water as an entry-point for multisectoral and regional impact investment opportunity.

42 UNESCO's 'Groundwater Resources Governance in Transboundary Aquifers' (GGRETA) project, covering the Trifinio Aquifer in Central America, the Pretashkent Aquifer in Central Asia, and the Stampriet Aquifer in Southern Africa.

43 Countries in each river basin are: Amazon - Bolivia, Brazil, Colombia, Ecuador, Perú, Venezuela; Amu Darya - Afghanistan, Tajikistan, Turkmenistan, Uzbekistan; Mekong - Cambodia, China, Lao PDR, Myanmar, Thailand, Vietnam; Sava - Bosnia and Herzegovina, Croatia, Serbia, Slovenia; Senegal - Guinea, Mali, Mauritania, Senegal; Syr Darya - Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan; and Tigris-Euphrates - Iran, Iraq, Syria, Turkey.

Annex 3: Market analysis

This market analysis reviews the status of Nepal's water infrastructure sector (including rural and urban water systems) and demand for the provision of Finnish companies' solutions.

1. LOCAL CONTEXT AND BUSINESS ENVIRONMENT	
1.1 Description of the focus area	• Rural Nepal is socially and ecologically diverse, economically poor and dependent on remittance payments, demographically declining at 0.1% annually and physically fragile, prone to natural disasters and with an increasingly unstable climate. It is a challenging place to ensure that adequate WASH services reach everyone, and effective solutions are typically low-tech and locally appropriate in design and procurement. • Urban Nepal is economically dynamic and demographically growing at 2% annually, but infrastructure development often fails to keep pace with demand for delivery of WASH and other services despite government policies. Here there are opportunities for mainstream technologies and facilities to be applied in water collection, storage, treatment, delivery and wastewater management, including the climate-proofing of urban areas.
1.2 Status in Nepal	• Nepal has an overall abundance of freshwater from monsoon rainfall and seasonal snow-melt from the Himalayas, but snow and ice coverage has declined by 40%, reducing a critical buffer to surface water shortages in major river basins. • Water availability in Nepal is spatially and temporally variable, with floods and shortages both frequent and unpredictable. Climate change is affecting monsoon rainfall and intensity, melting of glaciers and snowmelt, surface and groundwater availability, and nationwide flood and fire risks. • While 95% of the population has access to basic drinking water, only 16% of the population uses a safely managed drinking water service.[44] At the same time, 51% of the population uses a safely managed sanitation service, and 64% have a handwashing facility with soap and water available at home. Thus work remains to be done to achieve SDG 6 (water and sanitation for all). • About 89% of the urban population has access to basic water supply but only 34% of the supply is safely managed, and the remainder has low assurance of adequate quantity, quality, and reliability, with only 15% of the existing water system complying with national water quality standards (IBN, 2024). • Urban areas are struggling to meet water demand due to rapid population growth, poor infrastructure, pollution, and disasters. Challenges of water and environmental security are particularly severe in the Kathmandu valley (Poudel & Shaw, 2025). • Nepal has experienced an increasing frequency and intensity of extreme weather events due to climate change. Disasters such as floods (including glacial lake outburst floods) and landslides affect both the water infrastructure and access to water resources. Floods and landslides caused damage equivalent to 0.8-1.0% of gross-domestic product (GDP) in 2024 (World Bank, 2025; WMO, 2025). • Nepal has one of the lowest dam storage capacities in Asia and has high inter-seasonal water availability.[45] Without water storage, dry season hydropower generation and municipal water service delivery is reduced, particularly in Kathmandu. • Under the 2015 federal constitution, the water and sanitation sector is managed by municipalities, serviced mainly by local service providers and local communities.

44 https://www.iwmi.org/blogs/how-nepal-can-make-water-and-sanitation-systems-inclusive-and-climate-resilient/.

45 https://winrock.org/wp-content/uploads/2021/08/Nepal_Country_Profile_Final.pdf.

1. LOCAL CONTEXT AND BUSINESS ENVIRONMENT	
1.2 Status in Nepal	• The municipalities follow local procurement rules, namely the Public Procurement Act, 2063 (2006). The rules state that the procurements should be made at the lowest appropriate levels, meaning that the goods needed for repairing and building new WASH systems especially in rural areas are procured locally, and mainly from local providers. • In rural areas, most if not all of the fabric of the water management systems is built locally, mainly from locally-procured goods. Most services are procured from local individuals and service providers by Water Users' and Sanitation Committees under the municipal governments. • A new PIF project for Nepalese urban water management is under development by MFA Finland.
1.3 Focusarea development needs and challenges	• Insufficient infrastructure in rapidly growing urban areas. • Limited access to water purification solutions across the country.
1.4 General privatesector business environment[46]	**Relevant policies**: • The National Urban Policy 2007 stressed the need to identify and utilise possible financial resources through private investment in urban infrastructure development, and stated the need of public-private partnerships and foreign investment. • The National Urban Development Strategy 2017 emphasised the promotion of private investment in basic urban services and higher order infrastructure, and prioritised the facilitation of private investment in water supply, waste-water treatment systems, and public private partnership arrangements in waste collection and management. **Relevant laws**: • Public – Private Partnership and Investment Act, 2019. The Act provides different models of public-private partnership possible for project implementation. It offers projects for development through solicitation; however, unsolicited proposals can also be submitted by the interested investors. The act also has a provision for viability gap funding. • Local Government Operation Act, 2017. Local governments can operate and manage public private partnerships. Private sector is allowed to collect service fees while managing public services under public-private partnership contracts. • Industrial Enterprises Act, 2020. Definition of infrastructure industries provided in annexes: (2) road and bridge, conference centre, water-supply and distribution, vehicle parking lot and parking house, waste-water treatment plant and commercial complex; (5) recreational park / water park, museum; (8) public transport, municipal waste collection and processing, land and housing development, operation and management of conference centres, water-supply, bus-park. • Kathmandu Valley Development Authority Act, 1988. The Authority carries out land development programmes and regulates the development of joint housing by private investors. • Town Development Act, 1988. Requires Town Development Committees to prepare physical development plans with land use zones and carry-out land development programmes. It allows private investment in land and housing projects. • Kathmandu Metropolitan City Public Private Partnership Act, 2022. Has provisions for submitting unsolicited projects by private investors and for granting permission for study and development. Establishes a public-private partnership Division under Mayor's secretariat to provide administrative support.

46 Source: IBN, 2024.

1. LOCAL CONTEXT AND BUSINESS ENVIRONMENT	
1.4 General privatesector business environment	**Relevant institutions:** • Ministry of Urban Development, Singha Durbar, Kathmandu. In charge of: (i) formulation and amendment of urban development national policies and laws; (ii) partnership arrangement with private investors as indicated by public-private partnership and Investment Act – 2075. • Department of Urban Development and Building Construction, Babarmahal, Kathmandu. In charge of: (i) designing and developing large urban infrastructure projects; (ii) coordination and facilitation support to Kathmandu Valley Development Authority and Town Development Committees in formulating land and housing development projects; (iii) partnership arrangements for joint waste processing centres among municipalities. • Department of Water Supply and Sewerage Management, Panipokhari, Maharjgunj, Kathmandu. In charge of: (i) preparation and management of water supply and sewerage projects in major urban centres; (ii) institutional design and partnership arrangement of large-scale water supply projects as prescribed by public-private partnership and Investment Act – 2075. • Public-private Partnership Division, Kathmandu Metropolitan City, Kamaladi, Kathmandu. In charge of: (i) discussions with private investors on their proposals for partnerships and report to the mayor's secretariat; (ii) design and study of public-private partnership projects to assess their technical, financial, and economic readiness • Office of Municipal Executive in metropolitan cities (Pokhara, Bharatpur, Biratnagar, Birgunj, Lalitpur). In charge of: (i) supporting municipal executives in developing flagship projects of the city and design partnership modalities for selected public-private partnership projects; (ii) providing technical guidance to the concerned units in designing public-private partnership projects; (iii) coordinating and facilitating with the private sector on their ideas on partnership projects. **General opportunities and constraints:** • Young, relatively well-educated workforce available • Investment regulations can be unclear, making it challenging to take profits out of the country. • Private sector-led growth reforms were introduced through five ordinances passed by Parliament in March 2025 (World Bank, 2025). • Nepal's Corruption Perception Index has been roughly stable since 2019 at about 34% (rank 107/180).[47] • **Risks**: political instability, heavy bureaucracy, governance issues.

47 https://www.transparency.org/en/cpi/2024/index/npl.

2. DEMAND WITHIN THE FOCUS AREA	
2.1 Typical client/ customer segments	• There are four types of water supply service providers in urban areas of Nepal (IBN, 2024): • Kathmandu Upatyaka Khanepani Limited (KUKL) provides water supply services in Kathmandu Valley. It is a joint initiative of Government of Nepal, Kathmandu Metropolitan City, Lalitpur, Metropolitan City, Bhaktapur Municipality, Federation of Nepal Chamber of Commerce, and Industry (FNCCI) and Nepal Chamber of Commerce (NCC) to commercialise water supply services among city dwellers. The KUKL has installed 255,450 tap connections to serve about 1,450,000 people. It has installed another 652 public stand-spouts to serve the poor and floating population. • Nepal Water Supply Corporation (NWSC) is a public sector enterprise providing services of water supply and sanitation in 22 other major cities outside Kathmandu Valley. The NWSC has a total of 136,760 water tap connections including 1,670 government connections with tariff services. An additional 685 public taps are in operation, and they provide free services to poor households. In all, the Water Supply Management Boards are regulatory bodies that also manage water service providers in some towns. NWSC has been providing services to 1,340,000 people. Besides the regular tap water supply services, it also provides container services at all branches and has established a bottled water factory in Panauti, Kavre. • Water Supply Management Board is a water supply regulatory body and manages the number of service providers within a city. The Government of Nepal has been handing over the property and responsibilities to the board, led by respective local governments. It also includes the private sector. The Water Supply Management Board is operational in Kathmandu Valley, Kavre, Bharatpur and Hetauda. Of these, the Bharatpur Water Supply Board has been providing tap connections to 30,000 households and serving a population of 170,000. • Water and Sanitation Users Associations were formed as community led-management initiatives under the Small-Town Water Supply and Sanitation Sector Project (STWS-SP) that covered more than 100 towns. The project was implemented from 2000 to 2022 with an Asian Development Bank loan, under the Town Development Fund (TDF). • In rural areas there are Water User and Sanitation Committees established under the municipal governments that have limited needs for water purification solutions. • Water Supply Management Board is a water supply regulatory body and manages the number of service providers within a city. The Government of Nepal has been handing over the property and responsibilities to the board, led by respective local governments. It also includes the private sector. The Water Supply Management Board is operational in Kathmandu Valley, Kavre, Bharatpur and Hetauda. Of these, the Bharatpur Water Supply Board has been providing tap connections to 30,000 households and serving a population of 170,000. • Water and Sanitation Users Associations were formed as commu-nity led-management initiatives under the Small-Town Water Sup-ply and Sanitation Sector Project (STWS-SP) that covered more than 100 towns. The project was implemented from 2000 to 2022 with an Asian Development Bank loan, under the Town Development Fund (TDF). In rural areas there are Water User and Sanitation Committees established under the municipal governments that have limited needs for water purification solutions.
2.2 Scale of demand and 5–10-year outlook	• Although Nepal's total population growth rate was slightly negative in 2024, urban population growth varied between 2–4% in the 2020s and demand for maintaining and expanding urban water in-frastructure keeps growing. • The local and regional offerings meet the demand for WASH related procurements in rural regions.
2.3 Regional differences (if any)	• Kathmandu Valley: the main centre for commerce, services and government, with about 10% of Nepal's total population of some 30 million) • Tarai: the southern plains and foothills are the heart of agriculture and most industries in Nepal, with relatively good infrastructure and about 16 million people (53% of Nepal's population). • Hills: the area between the Himalayas and the lowlands, with small villages and towns on mountain sides and about 37% of the population.

3. COMPETITION/CURRENT OFFERING WITHIN THE FOCUS AREA

3.1 Key companies active in the sector	• **Rural water infrastructure:** Most services are procured from local individuals and service providers by Water User and Sanitation Committees under municipal governments. • **Water Supply Engineering:** Civil Tech Pvt. Ltd., ECoCoDE NEPAL – Engineering Consultancy for Constructive Development Efforts in Nepal (P) Ltd. • **Water and wastewater management solutions:** Ion Exchange. • **Water infrastructure construction supervision, project management and planning:** Water Asia International (WAI).
3.2 Estimated current market size reached by businesses	• **Policy and targets:** In May 2025, the Government of Nepal set a target to provide clean drinking water to all by fiscal year 2025/26 in line with SDG 6, by increasing investment, repairing damaged water facilities and completing water projects through co-investment with local government and water user groups.[48] • No estimations for monetary market sizes have been identified.

4. FINNISH COMPANIES' OFFER

Finnish companies that can provide products and services to meet water infrastructure sector demand in Nepal.[49]	• **Cowater International** – Development consultant with long-term experience in water sector development projects in Nepal. • **Niras Finland** – Development consultant with long-term experience in water sector development projects in Nepal. • **Mittausguru** – provides solutions and services for monitoring water quality, flow, weather and ground parameters in industrial and research environment. • **Operon Group** – provides operation and maintenance services, sludge treatment and recycling as well as technology and process deliveries for municipalities and industries. • **Riverrecycle** – offers sustainable river cleaning services by collecting and recycling plastic from rivers. • **Vesiotec** – provides in-house software tools and services for process-based risk and security management in relation to water safety and security and water resource management.

5. CONCLUSION: NEPAL'S WATER INFRASTRUCTURE IS UNDER DEVELOPMENT.

In rural areas, the WASH sector, and especially the water management side, is maintained with local service providers and regionally procured goods. There is little or no demand for Finnish products, and the viability of the market for Finnish water sector companies is very limited, as all required procurements can be done locally. Also, the legislation encourages local procurements.

In urban areas, demand for infrastructure development exists, yet markets are still limited and currently managed mainly by local companies. Finnish firms have been active in the sector mainly through providing consulting services to development cooperation projects focusing on rural water and sanitation. A new PIF project for Nepalese urban water management is under development by MFA Finland and if approved should open business opportunities to some Finnish companies active in the sector.

48 https://www.dainiknepal.news/2025/05/02/15356.html.

49 Source: interviews.

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45 https://www.iwmi.org/blogs/how-nepal-can-make-water-and-sanitation-systems-inclusive-and-climate-resilient/.

46 https://winrock.org/wp-content/uploads/2021/08/Nepal_Country_Profile_Final.pdf.

48 https://www.transparency.org/en/cpi/2024/index/npl.

49 https://www.adb.org/projects/41022-022/main.

50 https://data.worldbank.org/indicator/SP.POP.GROW?locations=NP.

51 https://www.dainiknepal.news/2025/05/02/15356.html.

Annex 4: EU Water Expertise Growth and Export Programme contributions in 2023 to research and development projects by Finnish water sector companies

PROJECT NAME	PROJECT SUMMARY: AIMS AND PARTNER(S)[50]	EUR	DESCRIPTION OF OUTCOME (23 SEP 2025)
Allbiron – Plug & Play.	To pilot the Allbiron method internationally. Allbiron is a groundwater treatment method based on biological purification that removes iron and humus from groundwater without the use of chemicals. **Partner(s)**: Allwatec Oy.	69,900	-
Water Ecosystem to Africa.	To increase Finnish companies' exports to Africa, especially South Africa. Using mutually supportive competences, including export companies, scientific expertise, export and market knowledge, network and ecosystem expertise, the project will e.g. identify the real needs of South Africa in the field of water technology. Partner(s): FWF with: Bauer Solutions Oy, Dewaco Oy [FWF] Intolead Oy, Satakunta University of Applied Sciences Oy.	211,462	Very successful. Several companies entered South Africa and at least two have reached commercial agreements. This has enabled long-term networking and business development, which is needed in new markets and may lead to other African countries.
Suodin-sieppari – Finnish water innovations together.	To combine two Finnish water innovations – the Sofi filter and Weeefiner's 4D-trap – to create a new solution. **Partner(s)**: Sofi Filtration Oy [FWF] and Weeefiner Oy [FWF].	149,280	Very successful. The two companies have built a joint offering and commercial projects are expected.
Lining AQUAVISIO into the global SAP Store.	To make AQUAVISIO available on the SAP Store, thus opening opportunities for AQUAVISIO to gain visibility and commerciality globally. **Partner(s)**: Lining Oy [FWF].	53,000	Very successful. AQUAVISIO is part of SAP store as was the target. New business opportunities are expected.
Biofilm management in water systems using hydrodynamic cavitation technology.	To use hydrodynamic cavitation technology to investigate technology on biofilms and water quality. **Partner(s)**: Satakunta University of Applied Sciences with Suorahapetus Oy.	181,321	-

50 FWF = Finnish Water Forum

PROJECT NAME	PROJECT SUMMARY: AIMS AND PARTNER(S)[50]	EUR	DESCRIPTION OF OUTCOME (23 SEP 2025)
High recovery rate desalination system development and piloting.	To develop the first ever zero-wastewater desalination system that is targeted towards brackish water industrial users. Partner(s): Solar Water Solutions Oy [FWF].	103,021	-
A solution model for a more water-wise food system.	To create and pilot a transferable and replicable approach to the circular economy of process water in food processing companies can be improved regionally both in Finland and export markets. **Partner(s)**: Invenire Market Intelligence Oy with FWF.	124,462	Proceeded well, with good sales material developed for an important topic where commercial solutions are needed. New business opportunities are expected.
Integrated management of environmental information in modern mining.	To respond to the challenges of the industry by developing a tailor-made solution for the mining industry service for the management of environmental measurements. **Partner(s)**: Mittausguru Oy [FWF].	58,500	New offering successfully developed and new business opportunities and quotations underway in new markets in Central Asia.
Innovative combined treatment technologies for industrial water treatment for international water markets.	To develop and demonstrate innovative treatment methods for industrial oily water and metal-containing water. The aim is to develop cost-effective methods for the purification of these water fractions and the partial recovery of metals. **Partner(s)**: Savonia University of Applied Sciences [FWF] with: FWF, Lindström Oy, Mecapinta Oy, Biobros Oy [FWF], Weeefiner Oy [FWF].	194,204	Targets met and new commercial offering developed.
Growth and internationalisation of smart pumping management and remote maintenance and servicing applications.	To use new technologies in the platform economy by developing & demonstrating new solutions including digitalisation of the water sector and the transformation of energy optimisation into practical products & services integrated into Nokia's Impact Platform. **Partner(s)**: Savonia University of Applied Sciences [FWF], with: FWF, Thinglink Oy, Viimatech Digital Oy [FWF] & Nokia Oyj [FWF].	256,417	Good progress. New business opportunities are expected.
International conceptualisation and certification of digital water services for water distribution networks leakage and water quality management.	To bring to market internationally scalable digital water management services for both water leakage and water quality management. **Partner(s)**: Alva Yhtiöt Oy [FWF].	199,925	-
Measuring network conditions and processing data in the network information system.	To build cooperation between water technology suppliers and between technology suppliers and water utilities. **Partner(s)**: Soficta Oy [FWF] with Keypro Oy [FWF].	130,991	Changes in company ownership with no further information available.

PROJECT NAME	PROJECT SUMMARY: AIMS AND PARTNER(S)[50]	EUR	DESCRIPTION OF OUTCOME (23 SEP 2025)
DigiWADA – Enhancing Water and Dam management in Kazakhstan and Uzbekistan with public-private partnership joint offering.	To build capacity for a Finnish joint offer targeting Kazakhstan and Uzbekistan for dams and reservoirs, mines and other facilities handling large quantities of water "water-intensive" industries. **Partner(s)**: Kajaani University of Applied Sciences [FWF] with: FWF, Kauko International Oy [FWF], Tieto-Oskari Oy.	185,450	The business concept was developed as planned. Ongoing discussions with customers. Major business potential is seen.
New materials for passive water treatment in mines and recovery of valuable substances (KaiPa).	To investigate through pilot experiments replicable and scalable passive water treatment methods and materials (geopolymers and chitosan) for the treatment of mine leachate and the recovery of valuable substances. **Partner(s)**: University of Oulu [FWF] with: BioS04 Oy [FWF], Aquaminerals Finland Oy, Feasib Oy.	361,725	-
How to become a water responsible company? The 2030 Water Responsibility for P&I Enterprises development project.	To increase the water responsibility of Finnish research and development companies. **Partner(s)**: Suomen Vesistösäätiö sr. with: FWF, Pyhäjärvi Institute.	183,324	The project was completed as planned. Commercialisation remains in progress.
Lining AQUAVISIO Enabling the export of AQUAVISIO spatial measurement system as part of Trimble networking Information System.	To ensure the export capability of the Lining AQUAVISIO Spatial Measurement System as part of the Trimble [FWF] system, and explore the export potential of this solution in the Nordic countries. **Partner(s)**: Oy Lining Ab (FWF].	34,796	-
Innovative co-processing technologies for enhanced nitrogen removal and recovery in cold environments wastewater.	To develop an efficient method for nitrogen removal & recovery that can be integrated into existing activated sludge plants at reasonable cost. **Partner(s)**: Savonia University of Applied Sciences (FWF] with: FWF, Operon Group Oy [FWF], Vihdin vesi, Weeefiner Oy [FWF].	255,815	The project was well executed and new technology was developed. There are ongoing discussions with customers.
Development of a pre-treatment process to produce high quality process water from seawater, 'MERIKIRI' project.	To develop a pre-treatment method for brackish water desalination. **Partner(s)**: Hamina's City.	133,722	-
Market mapping, agent search and verification of the results of the natural water pilot in Thailand and Korea.	To improve water quality in drinking water, wastewater and natural water solutions. **Partner(s)**: Sansox Oy [FWF].	15,660	-

PROJECT NAME	PROJECT SUMMARY: AIMS AND PARTNER(S)[50]	EUR	DESCRIPTION OF OUTCOME (23 SEP 2025)
Piloting the OperonWay data management system, monitoring application and Membrane Bioreactor algorithm in five wastewater treatment plants.	To promote the digitalisation of water management and data management for water treatment operators by creating a central repository that brings together data that was previously scattered across different data sources. **Partner(s)**: Operon Group Oy [FWF].	84,495	-
Cost-effective life-cycle maintenance and uptime of the equipment base based on validated data-based resource management.	To find a way for the water sector to make informed, economically well-judged choices about how to develop and change its facilities. **Partner(s)**: Flowplus Oy, with: Ambientia OY/Asensiot, Viimatech Digital Oy [FWF], Xylem Water Solution Suomi Oy.	247,250	-
	Total (EUR)	3234,720,000	

Source: EU Water Expertise Growth and Export Programme; interviews

Annex 5: List of institutions consulted

ORGANISATION / UNIT	NUMBER OF INFORMANTS
Cowater International	2
Deltares, Groundwater and Water Security Department (Netherlands)	1
Embassy of Finland, Kathmandu (Nepal)	2
Embassy of Finland, Hanoi (Vietnam)	1
Finnish consulting firms (other entries under LACC, SUSWA)	1
Finnish Environment Institute (Syke)	4
Finnish Water Forum	4
Finnpartnership	1
Geological Survey of Finland	1
International Finance Corporation, Blended Finance Department	1
International Union for Conservation of Nature (IUCN)	2
International Water Management Institute	1
MFA - Asia and Oceania Department	1
MFA - Centre for Peace Mediation	1
MFA - Euro-Atlantic Department/Unit for Eastern Europe	2
MFA - Department for Development Policy/Unit for Climate and Environmental Diplomacy	4
MFA - Department for Development Policy/Unit for Development Finance and Private Sector Cooperation	1
MFA - Department for International Trade/Export Promotion Unit	1

ORGANISATION / UNIT	NUMBER OF INFORMANTS
Natural Resources Institute Finland (Luke)	1
Sustainable WASH for All (SUSWA) project, Nepal	3
United Nations Economic Commission for Europe (UNECE), Environment Division	1
United Nations Environment Programme (UNEP)	2
WaterFinns (another entry is under LACC)	2
WWF Finland	1

PRIVATE SECTOR COMPANIES[51]	
Circulate Capital (Singapore)	2
RiverRecycle Oy	1

51 Private sector companies (19) that participated in the evaluation's private sector engagement survey did so anonymously, so they are not included in this list.

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Ministry for Foreign
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