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### **ANNEX I**

to the Commission Implementing Decision on the adoption of multiannual indicative programmes for Caribbean Overseas Countries and Territories (Bonaire and Curaçao) for the period 2021-2027

## 1) The overall lines of the EU international cooperation in Bonaire

Bonaire is an island in the Leeward Antilles in the Caribbean Sea, 80 km off the coast of Venezuela. As of 1<sup>st</sup> January 2019, the island's population totalled 20,104 permanent residents. The island's total land area is 288 km<sup>2</sup>. GDP of Bonaire is approximately EUR 22 000. Bonaire's economy is mainly based on tourism. In 2019, the number of visitors arriving in Bonaire by air was 158,000, by sea 458 000. Bonaire is rated among the best diving locations in the world.

Following the dissolution of the Netherlands Antilles, Bonaire is since 2010 a part of the Netherlands as a public entity (*Openbaar lichaam Bonaire*, OLB), forming together with Saba and Sint Eustatius the Caribbean Netherlands. Bonaire is supported by Dutch line ministries, coming together through the RCN (*Rijksdienst Caribisch Nederland*) for the design of its policies, strategy for socio-economic development and the actual implementation.

Relations with the European Union are defined by <u>Council Decision (EU) 2021/1764</u> of 5 October 2021 on the Association of the Overseas Countries and Territories with the European Union including relations between the European Union on the one hand, and Greenland and the Kingdom of Denmark on the other (Decision on the Overseas Association including Greenland, DOAG). The DOAG sets a certain number of areas of cooperation. Most of them can be encapsulated under the definition of resilience, with numerous ramifications.

EU cooperation with Bonaire is further framed by Part IV of the Treaty on the Functioning of the European Union (TFEU) Article 198 of TFEU emphasises that the association shall 'promote the economic and social development of the countries and territories and establish close economic relations between them and the Union as a whole'.

#### 1.1. Basis for programming

With marine and terrestrial conservation, sustainable natural resource management and climate resilience assuming greater global importance in the last decades, these efforts were materialised into several policy and planning documents in Bonaire, in particular:

The Nature and Environmental Policy Plan Caribbean Netherlands 2020-2030, Plan for Land and Water (referred after as NEPP); Ministries of Agriculture, Nature and Food Quality, Infrastructure and Water Management and Interior and Kingdom relations of The Netherlands; March 2020.

The NEPP is the basis of the EU territorial cooperation with Bonaire 2021-2027. The NEPP aims to provide an integrated framework addressing responsibilities, policy targets, and legal obligations related to management of the natural environment in the Caribbean Netherlands. It will be implemented in two phases, 2022-2025 and 2025-30. The public entities of each of the three islands (Bonaire, Saba and Sint Eustatius), with support of the national government, will develop their own, specific, implementation plans that function as the action plans for local nature and environmental policy on each island (see next bullet).

In line with the NEPP, the Netherlands will also provide investment funds. The first phase is funded by USD 35 million, approximatively EUR 34.4 million (USD 13 million, approximatively EUR 12.8 million for Bonaire; USD 7 million, approximatively 6.9 million for Sint Eustatius; USD 4.5 million, approximatively EUR 4.4 million for Saba and USD 10.5 million, approximatively EUR 10.3 million regionally for Caribbean Netherlands).

- Implementation Agenda for Nature & Environment Policy on Bonaire 2020 2030; Openbaar Lichaam Bonaire (OLB)/ Government of Bonaire OLB; March 2021.

  In this Implementation Agenda the OLB outlines the Bonarian approach to enact the NEPP of the Caribbean Netherlands, according to four (4) strategic goals:
  - 1. Reverse coral reef degradation,
    - Goal 1.2: Waste and wastewater management to improve water quality, 1.2.1: adequate wastewater treatment in Bonaire
  - 2. Conserve Species and habitats (including management plans with restoration)
  - 3. Sustainable use of land and water for the development of the local economy
  - 4. Create the enabling conditions for effective nature management and sustainable use in the Caribbean Netherlands.
- The Netherlands have also committed to international nature conservation agreements and environmental standards that serve as a guideline for responsibilities at the OCT level, such as the *Ramsar Convention* in 1980 regarding wetlands of international importance, including in Bonaire.

Such cooperation will also build on earlier initiatives of the partnership between the EU and Bonaire. Namely, the EU has previously contributed, through the 9<sup>th</sup> and 10<sup>th</sup> European Development Fund (EDF) territorial programme, to the development of Bonaire's sewerage systems during 2000-2006 and 2007-2013, respectively. The cooperation between the EU and Bonaire also continued under the 11<sup>th</sup> EDF (2014-2020), albeit with a different focus, i.e. on youth. Water management and sanitation was selected a new priority area for 2021-2027 because of the important needs faced by Bonaire. Population growth and economic activity (primarily in the tourism industry) led to increased impacts from wastewater and the production of solid waste.

### 1.2 Priority area of the EU's cooperation with Bonaire

Improved water management and sanitation (effective wastewater treatment) was jointly identified by Bonaire and the European Commission as the priority area of the EU territorial programme 2021-2027. This has also the potential to significantly bolster the shared ambitions of all levels: Bonaire, Caribbean Netherlands, Netherlands and the EU.

The main objective is safeguarding and restoring of ecological processes and functions, and addressing the drivers and pressures that put an increasing pressure on these fragile systems. Population growth and increased economic activity (primarily in the tourism industry) have led to increased impact from wastewater and the production of solid waste.

Bonaire is a Caribbean island with a wealth of natural resources, providing many ecological, cultural and economic services to the local population as well as regionally and globally. Nature based tourism on the island of Bonaire is not limited to marine activities such as snorkelling and diving; residents and visitors alike benefit from the interrelated terrestrial and marine ecosystems, habitats, flora and fauna, including mangroves, sea grass and coral reefs. Bonaire includes five 'wetlands of international importance', designated Ramsar sites: Flamingo Sanctuary in Pekelmeer, Klein Bonaire Island, Gotomeer, Washington Park-Slagbaai Lagoon, Lac Caai. These Ramsar Sites are managed under the Ramsar Convention by STINAPA (*Stichting Nationale Parken Bonaire*), which was ratified by the Netherlands on 23 September 1980. The Bonaire Marine Park was established in 1979, designated a 'National Park' in 1999 and is now

managed by STINAPA<sup>1</sup>. The park extracts diving fees, which finances its effort to safeguards habitats, conserve biodiversity, and enforce protection measures, such as prohibition of spearfishing since 1971 and for the coral reefs since 1975.

Since the 1970s, these natural attractions and a tropical Caribbean setting have spurred growth in the resident population and in tourism. Compared to a population of 8,000 and 74 tourists in 1970<sup>2</sup>, WEB (Water and Power Company of Bonaire) reports drinking water is supplied to 21,500 population equivalents across the island in 2022<sup>3</sup>; this represents a 166% increase over 50 years. Commensurate with the increased population and tourism especially during peak periods in the winter, impacts on the natural environment and public health have escalated. Wastewater systems and practices have not been able to keep pace with the level of development and population-tourism growth. As a result, pollution to the groundwater and, in turn, leaking to the coastal marine environment increased over 90% from 1990 to 2005; nitrogen loads have increased from 7.7 tons/ year to 14.8 tons/ year emanating from the 'sensitive zone' (coastal area west of Kralendijk, the capital city and main source of sewage) and 47% from 34 ton/year to 50 ton/ year for the entire island. Multiple studies concluded that the quality of Bonaire's coral reef began to decline as of the mid-1970s, because of the increased pollution loading from untreated sewage and from stormwater run-off<sup>4</sup>.

Significant steps and investments have been undertaken to address these impacts and improve environmental protection in Bonaire, including three wastewater related regulations.<sup>5</sup> However, more efforts are required to meet the needs for Bonaire's sustainable development.

### The existing wastewater management situation in Bonaire:

As regards sanitation, the collection and treatment of wastewater is addressed in Bonaire via two primary strategies resulting in two systems: centralised and decentralised. At first, wastewater collection and treatment was addressed through septic tanks and cesspools in a decentralised manner at the property owner premises. The 'AWZI' Septage Treatment Plant was realised in 2010 to treat the emptied septage from septic tanks by tanker trucks. However, increasing population-commercial densities in Kralendijk, inadequate tank materials and practices (construction, regular emptying to treat septage, upkeep) and insufficient treatment efficiencies of septic tanks (low reduction levels in solids, biological and nutrient loads), did not sufficiently decrease the discharge of pollutants into the coastal environment; the degradation of the coral reefs and marine environment persisted.

Therefore, the centralised wastewater system was planned and its first elements were realised starting in 2013-2014. The centralised system is intended to serve a 'sensitive area', a 500 m band extending along about 10 km of coastal shore in Kralendijk, the area of greatest population and business density on the island. The initial implementation has focused on a narrower band of only 200 m, to prioritise limited financial resources and maximise impact. Now, the system consists of a 72 km 'vacuum' (pressure, not gravity) sewerage pipe network, which delivers raw sewage to the 'RWZI' Wastewater Treatment Plant (WWTP) with a design capacity of  $1.386 \, \text{m}^3/\text{d}$  for  $9,360 \, \text{population}$  equivalents. Treatment is via a four-stage activated sludge plant. WEB reports actual plant performance fully addresses the actual daily supply of sewerage, typically ranging from  $5,500-7,500 \, \text{pe}$  with an average of  $6,200 \, \text{pe}^6$ . Historically, full plant

<sup>5</sup>• Island Ordinance Wastewater Bonaire/ Eilandsverordening Afvalwater Bonaire: Island Regulation of 5 July 2012, no. 2 containing rules relating to wastewater;

<sup>&</sup>lt;sup>1</sup> The marine park extends around the main island and Klein Bonaire from the high-water mark to a depth of 60 meters and entails an area of about 2,700 hectares, including the coastal sections of the Ramsar sites.

<sup>&</sup>lt;sup>2</sup> Critical review of the proposed irrigation and effluent standards for Bonaire; A. J. van Kekem, et al.; 2006

WEB responses to questionnaire of the EU Water Facility (Bonaire mission in 2022 04 5-10)

<sup>&</sup>lt;sup>4</sup> A. J. van Kekem, et al.

<sup>•</sup> Irrigation Bonaire: standards from the draft Island Ordinance Wastewater/ Irrigatie Bonaire: normen uit concept Eilandsverordening Afvalwater; Bonaire 2007;

Water and Wastewater norms per Lucht & GeLuid - Water & afvalwater - Afval; indrapport Milieunormen, Nederlandse antillen; 11 June 2007

<sup>&</sup>lt;sup>6</sup> WEB responses to questionnaire of the EU Water Facility (Bonaire mission on 5-10 April 2022)

capacity was approached on four peak days occurring both 'before' (in 2018/2019) and 'after' (in 2021) the corona pandemic, when tourist rates were higher, with flows up to about 8,500 to 9,200 pe)<sup>7</sup>.

# The existing circular economy applications in wastewater management in Bonaire:

The treated effluent produced at the centralised WWTP is used for irrigation water and distributed to hotels (for landscaping) and farmers (for locally grown agricultural products) through a 14 km pressure network to 38 customer connections.

### Need for sanitation - sewerage and treatment:

More sanitation measures are prescribed in the *NEPP Implementation Agenda* as per 'Goal 1.2: Waste and wastewater management to improve water quality, 1.2.1: adequate wastewater treatment in Bonaire'. An overall calculation of the total sewage collected and treated from both the centralised and decentralised systems indicates sewage from about 35-50% of the population equivalents (residents, tourists and businesses) on the island are treated to the prescribed regulatory norms. This calculation is based on WEB's drinking water supply production rate of 7,200 m³/d (distributed to 21,500 pe) and the flow typically returned as sewage (typically 80% or 5,760 m³/d). The centralised system is able to accommodate about 24% of the returned drinking water (WWTP capacity 1,386 m³/d) from the sensitive area. In turn, the decentralised network of septic tanks and cesspits services the remainder of the settled areas around the island beyond the sensitive area; inconsistent practices for installation, upkeep and regular emptying of septic systems for treatment at the septage plant may account for another 10-25% of the island wastewater flows. Therefore, about 50% (range of 35% to 55%) of the wastewater generated in Bonaire is not treated sufficiently to the required regulatory norms. Accordingly, sewage related pollution (solids, organic and nutrient loading) continue to jeopardise the marine environment, with continued degradation of coral reefs.

Regarding sewerage, Bonaire foresees to extend sewerage networks, consistent with the original project planning in 2013-2014 and the *NEPP Implementation Agenda*. In the centralised network this would mean to continue network extension within the sensitive area, adding on to the recent extensions installed during the 9<sup>th</sup> and 10<sup>th</sup> EDF in the Belnem and Hato neighbourhoods of Kralendijk. Regarding the decentralised network, a new strategy is under trial by Bonaire's Directorate for Spatial Planning and Development. The new approach is to develop smaller, neighbourhood sewerage networks and treatment works, with the aim to return treated effluent to the neighbourhood residents, for use as irrigation for vegetable gardens and landscaping cover. Procurement for pilot projects ('demos') are foreseen to be launched to test the concept – and upon confirmation move forward with planning and investments.

Regarding wastewater treatment, WEB reports that property development rates (>10%) in the sensitive area will result in sewage flows which surpass the centralised WWTP capacity from 2022 to 2024<sup>8</sup>. Several possible improvements are recommended in the technical studies, <sup>9</sup> which would improve the plant performance and expand plant capacity. In addition, the decentralised approach, additional 'smaller, neighbourhood' treatment plants are under consideration and, upon confirmation of suitable treatment processes, may be developed going forward.

<sup>&</sup>lt;sup>7</sup> *Ibid*.

<sup>&</sup>lt;sup>8</sup> *Ibid*.

<sup>9•</sup> BC Wastewater Caribbean Netherlands- Responsible reduction of the ecological footprint of wastewater/ BC Afvalwater Caribisch Nederland - Verantwoord verkleinen van de ecologische voetafdruk van afvalwater; powerpoint presentation, Royal Haskoning DHV; March 2021

Overseas Countries and Territories: Environmental Profiles; Part 2 – Detailed Report; Section A – Caribbean Region (Safege Consortium; EuropeAid/127054/C/SER/multi Request n° 2013/325768, October 2015)

Technical Evaluation BSSS project Bonaire/ Technische Evaluatie BSSS project Bonaire; Royal Haskoning DHV; March 2015

<sup>•</sup> Critical review of the proposed irrigation and effluent standards for Bonaire; A. J. van Kekem, et al.; Alterra, Wageningen (Environmental Research); Alterra-Report 1289, Final.doc/01/2006

### Need for Circular Economy applications in water resources management:

Bonaire receives about 565 mm/year of precipitation and produces 100% of its drinking water through desalination; it is considered severely water scarce, because freshwater withdrawals exceed 40% of supply, as per definition. Therefore, water resources conservation and management is a key priority in Bonaire, as demonstrated by WEB and its existing system to reuse irrigation-grade wastewater effluent.

### 1.3 Justification and context, including linkages with the DOAG, EU policies and SDGs

The choice of water management and sanitation is in line with the cooperation area set out by the DOAG. Part II of the DOAG sets out the areas of cooperation for sustainable development, with Chapter 1 emphasising environmental issues, climate change, oceans and disaster risk reduction (in particular, Article 15, promotion of sustainable use of resources and resource efficiency, and encouragement towards the decoupling of economic growth from environmental degradation; Article 16 Sustainable management and conservation of biodiversity and ecosystem services; Article 18 Integrated coastal zone management; Article 19 Oceans). Finally, Part IV of the DOAG sets out the instruments for the sustainable development of the OCTs, with Articles 74 and 75 in particular foreseeing the provision of adequate financial resources and appropriate technical assistance aimed at strengthening the OCT' capacities to formulate and implement strategic and regulatory frameworks such as in the fields of sustainable waste and water management (Articles 20 and 21). The MIP will also aim to contribute to the DOAG's objectives on climate and biodiversity to the best extent possible.

Strong partnerships for water and oceans, for zero-pollution, for circular economy, for biodiversity, and for environmental-friendly food systems are foreseen under the <u>Green Deal</u> as well as the protection and promotion of decent work, human rights, including labour rights under the associated Just Transition. The main objective of our cooperation with Bonaire on sanitation will be to address sustainable wastewater collection and treatment for the protection of the marine and terrestrial environment, safeguarding public health and enabling reuse of wastewater resources in suitable agricultural use. In addition, this priority area is consistent with the <u>EU Action plan for Protecting our environment</u>, since it will boost global competitiveness, fostering sustainable economic growth and generating new jobs. It is also closely aligned to the new <u>EU 2030 Biodiversity Strategy</u> aimed at protecting nature and reversing the degradation of ecosystems.

By applying the rights-based approach and referring to the <u>EU Gender policy (GAP III)</u>, the programme will aim to mainstream gender in all activities, and by the consideration of the principle of inclusiveness as key element in sustainable economic growth and decision-making. Particular attention will be given to the needs of women, for example by ensuring equal participation in training, capacity building activities, supervision, and execution. The rights-based approach will also support the central importance of labour rights in the associated activities and the environmentally and socially sustainable economic growth they support.

In line with the Youth Action Plan in EU's external action, the programme will also promote the participation of young people by mainstreaming their perspectives and needs and involving them throughout the EU policy and programme cycles.

With regards to the Sustainable Development Goals (SDGs), the selected area for cooperation corresponds to SDG 3: Health and well-being, SDG 5: Gender equity, SDG 12: Responsible consumption and production, SDG 13: Climate Action<sup>10</sup>, SDG 14: Life below water, and SDG 15: Life on land.

Dutch OCTs, including Bonaire, did not sign up to the Paris Agreement. However, its objectives and roles are also very relevant in the broader framework of international action on climate change.

### 1.4 Duration of the MIP and option for synchronisation

The MIP will have a duration of 7 years, 2021-2027 and is well aligned with the Netherlands' foreseen NEPP investments in the Caribbean Netherlands, including in Bonaire, during 2022-2030, plus Bonaire's parallel *NEPP Implementation Agenda*.

An election of the 9 members of the Island Councils of Bonaire was held in March 2019. The election was won by the Movement of Bonaire People with two other parties (Bonaire Democratic Party, Bonaire Patriotic Union and Movement of Bonaire People) each holding three seats on the Island Council. The next Islands Council election is due to be held in March 2023. The collapses of coalition formations at the level of the Island Council do not trigger the holding of fresh elections.

New coalitions at the level of the Island Council during previous EDF programmes did not lead to a change of sector of intervention.

### 2) EU support per priority area

#### 2.1 Priority area

The priority area is water management and sanitation. Increasing access to sustainable sanitation for all is a necessary means for green and resilient growth, improving environmental quality and promoting water and food security – all vital considerations for the sustainable development of Bonaire. A key aspect to implementing Green Deal and Just Transition related policies is to ensure full participation of all segments of society (such as civil society, community-neighbourhood organisations, conservation groups and private-tourism sector) that have an interest in integrated water resource management for sustainable social and economic development.

# 2.1.1. Specific objectives related to the priority area

Two specific objectives (SO) under the priority area of Bonaire are:

# SO1. Bonaire integrates the Circular Economy in Water Resources Management to lower marine and terrestrial pollution, increase public hygiene and build resilience

It is foreseen to expand the application of the circular economy in water resources management, as a mechanism to address the interrelated aims of greater environmental and health protection (via increased sanitation coverage and greater wastewater treatment capacities) and increased water and food security (via greater application of circular economy practices for reuse of wastewater resources).

Three types of infrastructure systems will enable the collection, treatment and reuse of wastewater, and so reinforce circular economy principles in Bonaire's water resources management. First, in order to increase access to sanitation, infrastructure works will be implemented for sewerage networks, either to extend the existing centralised network or establish the decentralised network in yet unserved areas. Second, complementary infrastructure works will be realised to expand wastewater treatment plant capacity, either by extending the existing centralised WWTP or by establishing new decentralised WWTPs in yet unserved neighbourhoods or areas. Third, further infrastructure works will be implemented to distribute irrigation-grade treated wastewater to small and commercial scale farmers, again either via the existing irrigation network, emanating from the existing centralised WWTP, or from new decentralised WWTPs.

# SO2: Bonaire develops an integrated water governance for sustainable conservation of vital ecosystems and its biodiversity

Promoting mechanisms for more sustainable water resources management and supporting even greater marine and terrestrial conservation will be sought.

Three types of institutional elements for improved instruments and greater capacities will enhance Bonaire's transition to more sustainable wastewater services and increased environmental protection.

First, a Wastewater Tariff Plan will promote application of the 'polluter pays' principle to begin customer payments for sanitation services from the centralised network (this will improve the cost recovery by the utility). Public meetings and an information campaign will be conducted to engage stakeholders and inform on all salient perspectives about the new tariff, including the agreed implementation schedule. Second, the existing Bonaire Wastewater Ordinance will be reviewed to confirm, or clarify if necessary, customer and utility responsibilities, regarding network connection requirements, network protection/pre-treatment limits and payment obligations for system extensions; this element includes a year-long training programme on enforcement of the Ordinance for the respective units of the utility and island government. Third and lastly, analysis equipment is procured to help realise the Water Quality Monitoring Programme, as called for in the *Implementation Agenda for NEPP on Bonaire 2020-2030*; this element includes a training programme for the utility and island government staff – and will build on complementary investments by others to select and develop the monitoring programme, sites and protocols – and so point the way to develop a coral restoration project.

### 2.1.2. Expected results per specific objective

The expected results are as follows:

# For SO1: Bonaire integrates the Circular Economy in Water Resources Management to decrease marine and terrestrial pollution, increase public hygiene and build resilience

- A. Increased levels of wastewater collected within the 200 m (or 500 m) shoreline protection zones for treatment according to regulatory norms of the Caribbean Netherlands
- B. Increased capacity of wastewater treatment plant(s) according to regulatory norms of the Caribbean Netherlands
- C. Improved valuation of wastewater as a resource with expanded application of circular economy practices in the water cycle for increased water and food security

# For SO2: Bonaire develops an integrated water governance for sustainable conservation of vital ecosystems and its biodiversity

- A. Wastewater Tariff Plan is implemented to chart timeline for application of the IWRM 'polluter pays' principle
- B. Wastewater Ordinance specifies responsibilities of customers and utility to achieve the IWRM 'polluter pays' principle
- C. Marine and ground water quality is monitored and evaluated (to assess viability for coral rehabilitation) according to best practices

### 2.1.3. Indicators (including baseline and targets), per expected result

The indicators to achieve the specific objectives are defined as following (baseline and targets are listed in Annex I):

### For SO1:

- A1. Access to Sanitation, new capacity, population equivalent
- A2. Access to Sanitation, new capacity, new customer connections (if possible sex disaggregated by household head)
- B1. Wastewater treatment plant(s) capacity, expanded or new, m<sup>3</sup>/d
- C1. Number of stakeholders receiving irrigation-grade treated wastewater, (disaggregated by commercial status and if possible by sex)
- C2. Amount of irrigation-grade treated wastewater sold for agricultural use, m<sup>3</sup>/d

### For SO2:

- A1. Wastewater tariff (and phasing plan) is developed, submitted and approved
- A2. Number of public meetings and dissemination campaigns
- B1. Extent to which the Wastewater Ordinance is reviewed (study) and recommendations approved to align with best management practices
- B2. Extent to which the training programme for the Wastewater Ordinance enforcement is completed for WEB and OLB units
- C1. Extent to which the laboratory analysis equipment is procured and (WEB) personnel trained to further develop the water quality monitoring programme

2.1.4. Risks per priority area

2.1.4. Risks per priority area		_
Risks	Level	Mitigating measures
1. Political instability due to change in government creates challenges in follow-through of activities and commitments.	Low	While the last three EDFs focal sectors did not change with changes in the Island Council coalition formations, there are no full assurances that this trend remains.  It is therefore necessary to ensure that the entire approach is mainstreamed into policy, legal instruments with a strong awareness-raising approach.  Moreover, it is necessary to ensure that the sustainability of the programme is not dependent on specific persons remaining in their government role, but rather that knowledge and capacity transfers are institutionalised. In this regard, budgets should be allocated for a monitoring/evaluation and information (MEI) tool and for engaging technical persons to prevent institutional memory loss and build a more resilient institution to complete this programme.
2. 'Political willingness' ebbs amongst stakeholders and in the Bonaire Government (Island and Executive Committees) for approval of institutional elements to achieve 'polluter pays' principle regarding sanitation services.	Medium	Public information campaigns and public meetings disseminate the interrelated messages of water resource management; Green Deal strategies; circular economy practices to achieve greater water and food security as vital components to preserve the marine and terrestrial environment and build greater island resiliency in Bonaire.
3. Multiple investors and funding sources duplicate investment options.	Low	The Bonaire government (OLB), utility (WEB) and respective Dutch Caribbean, Netherlands and EU entities engage on a regular basis to coordinate investments and allocations.
4. The Bonaire programme steering team may have challenges in the action formulation and execution as well as in receiving inadequate feedback.	Medium	Clear guidance and capacity building and a willingness to work with third-party specialists, if needed.  Various actions can be pursued to encourage stakeholders to provide the required monitoring information in a regular and timely manner.
5. The centralised and de-centralised sanitation systems overlap rather than providing complementary services to expand sewerage and treatment coverage.	Medium	The Bonaire government, utility and respective Dutch Caribbean, Netherlands and EU entities engage on a regular basis to coordinate investments and allocations.

small circles and do not reach wider population, in particular as regards	Contribution to the wider population benefit to be assessed for each action.
distribution of irrigation-grade treated wastewater effluent.	

### 3) Complementarity with EU/Member States' initiatives in the proposed priority area

### 3.1. Integrated European initiatives

There is currently no Team Europe Initiative to which Bonaire is part since the scope for engagement of additional donors is very limited. However, it will be necessary to further reflect on how these initiatives can be adapted to the situation of Bonaire, notably regarding cooperation with the Dutch government, if opportunities arise.

In addition, Bonaire is not an ACP<sup>11</sup> country (no Economic Partnership Agreements in place) nor a member of the Caribbean Forum (CARIFORUM), therefore there is no formalised regional/OCT trade cooperation through these avenues. The trade regime with the EU is defined by the DOAG and Bonaire's associated status as an OCT.

Being a public entity of the Netherlands, Bonaire benefits from central Dutch government support in different sectors of activities such as those listed in section 1.1. The legal status of the island places a responsibility on central government to intervene in crisis situations such as that caused by the COVID-19 pandemic. EU interventions have to stand in synergy with Dutch initiatives to enhance impact and to avoid overlaps and redundancies. The NEPP aims at providing an integrated framework implies that all the Dutch Ministries and especially that of Infrastructure and Water (I&W), Interior and Kingdom Relations (IKR), Economic Affair and Climate (EAC), and the Ministry of Agriculture, Nature and Food Quality (ANF) will cooperate in its implementation, forming an excellent basis for strong synergies between our actions. Besides, EU interventions will complement Dutch planned financial commitments. It is foreseen that around USD 1.1 million<sup>12</sup>, approximatively EUR 1.8 million will be earmarked on sanitation in Bonaire (e.g. for the sustainable use of wastewater in agriculture, for a pilot water and compost generation systems and for green education).

Bonaire will be eligible for the <u>European programme for environment and climate (LIFE) 2021-2027.</u> The objective of the programme is to contribute to the transition to a clean, circular, energy-efficient, low-carbon and climate resilient economy, in particular through the transition to clean energy, in order to protect and to improve the quality of the environment as well as halt and reverse the loss of biodiversity.

Synergies will also be sought with the <u>current 11th EDF Caribbean OCTs Resilience</u>, <u>Sustainable Energy and Marine Biodiversity Programme (RESEMBID)</u>, the thematic programme "Green Overseas", as well as the future regional programme for the seven Caribbean OCTs. The latter, by aiming to improve and strengthen the sustainable management of Caribbean OCTs' natural capital, will complement very well this action. The relevant services of the Commission shall discuss the implementing modalities and specific interventions, pursuant to draft Regulations DOAG (articles 74(c) and 84(4)) and European Territorial Cooperation (ETC) (article 55), which will be reflected as appropriate in the relevant Annual Action Plans/measures and within the "Caribbean Area INTERREG programme".

<sup>&</sup>lt;sup>11</sup> Countries of Africa, the Caribbean and the Pacific.

<sup>&</sup>lt;sup>12</sup> Following the consultations with Bonaire as well as Bonaire's Implementation Agenda for Nature & Environment Policy 2020-2030, this figure was estimated.

### 3.2 Support measures

Additional support measures may primarily be mobilised through the OCT Technical Cooperation Facility. Support measures will also ensure effective visibility and strategic communication of the EU-OCT partnership.

### 3.3 Support to investments

Bonaire is not mandated as a public entity, to independently and directly obtain funding from external lenders such as the European Investment Bank (EIB), even for blending purposes, based on the 2010 constitutional changes and the new fiscal framework. Debt relief is conditional on the establishment of a fiscal framework, applicable to the local government of each island of the Caribbean Netherlands, and including:

- 1. The introduction of medium-term budgeting (the current revolving Caribbean Netherlands 4 year multi-annual programme);
- 2. The establishment of a fiscal supervisor Dutch Board for financial supervision (*College financiael toezicht, CfT*) to supervise borrowing decisions, ensure that the fiscal rule is fully implemented, and advise responsible ministers;
- 3. A balanced current budget rule, with borrowing restricted to within-year cash management needs. Deviations will only be allowed only in case of a disaster, with disaster relief subject to the approval of the fiscal supervisor;
- 4. Borrowing caps for capital expenditure, limiting annual interest payments to 5% of the average total revenue of the preceding three years, with loans from a line department of a Dutch ministry of the for investments to be approved by the CfT only if the budget implementation is in line with the fiscal rule.

Like Dutch municipalities, public entities can only levy a limited number of taxes stipulated in the law (FinBES), of which land tax and tourist tax generate the principal returns (10-15% of total revenue). Thus the public entities are dependent on the Dutch central government resources by means of an "annual free distribution" though the annual budgets of the different Dutch ministries or special-purpose grants from departments within these ministries. Bonaire as a public entity cannot borrow funds from external sources such as the EIB. Only line departments of the Dutch ministries are allowed to grant (non-interest bearing) loans to the Caribbean Netherlands public entities.

Under the DOAG, Bonaire is eligible for the InvestEU programme on a competitive basis, which aims to kick-start the European economy through the provision of crucial support, notably financial guarantees, to the Union's medium- and long-term policy priorities, such as the Green Deal and greater resilience. At least 30% of the InvestEU Fund must contribute to the fight against climate change. InvestEU can be combined with grants or financial instruments (or both), funded by the centrally managed EU budget or by the EU Emissions Trading System (ETS) Innovation Fund.

### 4) Financial overview

The indicative distribution of this territorial allocation for the 2021-2027 period is as follows:

Improved water management and sanitation (effective wastewater management)	EUR 4.1 million	89.1%
Support measures	EUR 0.5 million	10.9%
Total	EUR 4.6 million	100%

A specific indicative amount or percentage may be identified with regard to the pooling of resources with the European Regional Development Fund (ERDF) under European Territorial Cooperation (ETC/INTERREG) programmes or other EU funds and EU Member States funds.

# Appendix: Indicative intervention framework

Priority area: Improved water management and sanitation (effective wastewater management)				
Specific objective 1: Bonaire integrates the Circular Economy in Water Resources Management to decrease marine and terrestrial pollution, increase public hygiene and build resilience				
<b>Expected results</b>	Indicators	Baselines, targets and sources of verification		
A. Increased levels of wastewater collected within the 200m (or 500m) shoreline protection zones –for treatment according to regulatory norms of the Caribbean Netherlands	A1. Access to Sanitation, new capacity, population equivalent (pe)	Baseline 2021: 6,200 pe (annual average) connected to WWTP service area  Target: 1,000 added new pe connected to the centralised or decentralised systems (for total 7,200 pe, annual average, connected to a WWTP service area)  Sources of verification: Progress reports, WEB (utility) and OLB (Note: indicator compatibility with EU Results Framework 2.38 "Number of people with access to improved drinking water source and/or sanitation facility with EU support" and SDG 6.2.1		
	A2. Access to Sanitation, new capacity, new customer connections (if possible sex and age disaggregated by household head)	Note: A1 and A2 measure the same aspect, 'access' but according to different metrics)  Baseline 2021: 0  In unsewered parts of either the centralised system (sensitive area in Kralendijk, Belnam neighbourhood) or de-centralised system  Target: 250 new customer connections  Sources of verification: Progress reports, WEB and OLB (Note: house connections and piped sewerage networks may be realised by separate, but complementary projects/ investors – and should be monitored in tandem)		
B. Increased capacity of wastewater treatment plant(s) according to regulatory norms of the Caribbean Netherlands	B1. Wastewater treatment plant(s) capacity, expanded or new, m <sup>3</sup> /d	Baseline 2021: existing RWZI-BSSS WWTP at 1,386 m³/d plant capacity  Target, option 1: Expand and upgrade the existing RWZI-BSSS WWTP to treat an additional 700m³/d for total of 2,080 m³/d  Upgrade or replace Fats-Oil-Grease (FOG) unit Realise 3rd SBR unit Upgrade UV unit from 1 to 4 light systems  And/or Target, option 2: Realise new treatment capacity of 700m³/d to meet needs of yet unconnected neighbourhoods and settlements, located beyond the existing or planned centralised-vacuum wastewater network  Sources of verification: Progress reports, WEB and OLB		
C. Improved valuation of wastewater as a resource - with expanded application of circular economy practices in the water cycle for increased water and security	C1. Number of stakeholders receiving irrigation-grade treated wastewater (disaggregated by commercial status and if possible by sex)  C2. Amount of irrigation-grade treated wastewater sold for agricultural use, m³/d	Baseline 2021: 40 (2 agricultural and 38 hotel customers for 'irrigation water')  Target: 12 (10 additional agricultural customers via the piped irrigation network)  Sources of verification: Progress reports, WEB and OLB (Note: C1 and C2 measure the same aspect, 'use of irrigation-grade treated wastewater' but according to different metrics. Indicator compatibility with Global Europe Results Framework 2.1 "Number of smallholders reached with EU supported interventions aimed to increase their sustainable production, access to markets and/or security of land")  Baseline 2021: 440 m³/d (total for hotels and agricultural sector)  Target: 640 m³/d total (increase of 200 m³/d sold to the agricultural sector: commercial and subsistence farmers via the piped irrigation network)  Sources of verification: Progress reports, WEB and OLB		

Specific objective 2: Bonaire develops an integrated water governance for sustainable conservation of vital ecosystems and its biodiversity			
<b>Expected results</b>	Indicators	Baselines, targets and sources of verification	
A. Wastewater Tariff Plan is implemented to chart timeline for application of the 'polluter pays' principle	A1. Wastewater tariff (and phasing plan) is developed, submitted and approved	Baseline 2021: No plan adopted  Target: Plan (including implementation phasing strategy) approved by WEB and OLB  Sources of verification: Progress reports, WEB and OLB	
	A2 Number of public meetings and dissemination campaigns	Baseline 2021: 0  Target: Public meetings (2) and communications' package (1) prepared and conducted under guidance of WEB and OLB  Sources of verification: Progress reports, WEB (utility) and OLB (Bonaire Government)	
B. Wastewater Ordinance specifies responsibilities of customers and utility to achieve the 'polluter pays' principle	B1. Extent to which the Wastewater Ordinance is reviewed (study) and recommendations approved to align with best management practices B2. Extent to which training programme for the Wastewater Ordinance enforcement is completed for WEB and OLB units	Baseline 2021: Island Ordinance Wastewater Bonaire/ Eilandsverordening Afvalwater Bonaire: Island Regulation of 5 July 2012, no. 2 containing rules relating to wastewater  Target: Study is commissioned and Study (with proposed recommendations) is approved by WEB and OLB to ensure alignment with best management practices  Sources of verification: Progress reports, WEB and OLB  Baseline 2021: No training programme available  Target: Training programme developed with and approved by WEB and OLB – is implemented in 12 monthly sessions across one year for all enforcement unit staff and management  Sources of verification: Progress reports, WEB and OLB	
C. Marine and ground water quality is monitored and evaluated (to assess viability for coral rehabilitation) – according to best practices	C1. Extent to which the laboratory analysis equipment is procured and (WEB) personnel trained - to further develop the water quality monitoring programme	Baseline 2021: historic sampling programmes and data  Target: procure and provide training for laboratory analysis equipment (as element to realise the water quality monitoring programme with complementary investors as defined in Implementation Agenda for NEPP on Bonaire 2020-2030, Strategic Goal 1: Reversing the trend of coral reef degradation to create healthy, resilient, and restored coral reefs, ensuring well-being in Bonaire, Goal 1.2: Waste and wastewater management to improve water quality, 1.2.1: Adequate wastewater treatment in Bonaire Milestone C, Implement an effective water quality monitoring programme for ground- and seawater, including the necessary research facilities)  Sources of verification: Progress reports, WEB and OLB	