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ANNEX

to the Commission Implementing Decision on the financing of the annual action plan in favour of Greenland for 2023

Action Document for Green Growth for Greenland

ANNUAL MEASURE

This document constitutes the annual work programme within the meaning of Article 110(2) of the Financial Regulation, within the meaning of Article 23 of the NDICI-Global Europe Regulation and article 82 of the Decision on the Overseas Association, including Greenland.

1 SYNOPSIS

1.1 Action Summary Table

1. Title CRIS/OPSYS business reference Basic Act	Green Growth for Greenland OPSYS number: ACT-61910 Financed under the Development and International Cooperation Instrument (NDICI-Global Europe) and the Decision on the Overseas Association including Greenland
2. Team Europe Initiative	No
3. Zone benefiting from the action	The action shall be carried out in Greenland.
4. Programming document	Multiannual Indicative Programme Greenland: 2021-2027.
5. Link with relevant MIP(s) objectives / expected results	SO 1 – Increasing the use of sustainable energy for a diversified economy SO 2 – Supporting Greenland’s biodiversity, climate action and research, and other relevant <i>Green Growth</i> issues
PRIORITY AREAS AND SECTOR INFORMATION	
6. Priority Area(s), sectors	Green Growth
7. Sustainable Development Goals (SDGs)	Main SDG: SDG 13: Take urgent action to combat climate change and its impacts Other significant SDGs: SDG 5: Gender equality and Empowerment SDG 7: Affordable and Clean Energy SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation SDG 12: Ensure sustainable consumption and production patterns

	SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.			
8 a) DAC code(s)	23110 23210 25010 32210 41020 41082			
8 b) Main Delivery Channel	1200 National Government			
9. Targets	<input type="checkbox"/> Migration <input checked="" type="checkbox"/> Climate <input checked="" type="checkbox"/> Social inclusion and Human Development <input checked="" type="checkbox"/> Gender <input checked="" type="checkbox"/> Biodiversity <input checked="" type="checkbox"/> Education <input type="checkbox"/> Human Rights, Democracy and Governance			
10. Markers (from DAC form)	General policy objective	Not targeted	Significant objective	Principal objective
	Participation development/good governance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Aid to environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Gender equality and women's and girl's empowerment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Reproductive, maternal, new-born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Disaster Risk Reduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Inclusion of persons with Disabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Nutrition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RIO Convention markers	Not targeted	Significant objective	Principal objective
	Biological diversity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Combat desertification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Climate change mitigation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Climate change adaptation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	11. Internal markers and Tags:	Policy objectives	Not targeted	Significant objective
Digitalisation		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
digital connectivity digital governance		YES <input type="checkbox"/> <input checked="" type="checkbox"/>	NO <input checked="" type="checkbox"/> <input type="checkbox"/>	/

	digital entrepreneurship digital skills/literacy digital services	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
	Connectivity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	digital connectivity energy transport health education and research	YES <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	NO <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	Migration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reduction of Inequalities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Covid-19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BUDGET INFORMATION

12. Amounts concerned	<p>Budget line: 14.050300</p> <p>Total estimated cost: EUR 22 500 000</p> <p>Total amount of EU budget contribution: EUR 22 500 000</p> <p>For budget support: EUR 15 000 000</p> <p>For complementary support (through contribution agreement or procurement): EUR 7 500 000</p>
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MANAGEMENT AND IMPLEMENTATION

13. Type of financing¹	<p>Direct management through:</p> <ul style="list-style-type: none"> - Budget Support: Multi-Sector Reform Performance Contract - Potentially procurement <p>Indirect management with the entity(is) to be selected in accordance with the criteria set out in section 4.4.1</p>
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1.2 Summary of the Action

<p>The Overall Objective of this action is to support Greenland's sustainable development and economic diversification.</p> <p>The Specific Objectives of this action are:</p> <ol style="list-style-type: none"> 1. Increase the use of renewable energy for clean fuels production; 2. Enhance the development of new sustainable raw material value chains; 3. Expand the protection of biodiversity, environment and climate. <p>This action will broaden EU-Greenland cooperation in three dimensions to diversify Greenland's economy for the benefit of its socio-economic development. Firstly, it will support pioneering approaches to capitalise on clean</p>

¹ Art. 27 NDICI

energy, where Greenland's unique hydropower potential in the mid- or long-term perspective be used to make the territory a relevant producer and exporter of clean fuels such as hydrogen and ammonia². Secondly, Greenland has important deposits of Critical Raw Materials (CRMs, a Memorandum of Understanding between the EU and Greenland on sustainable raw materials value chains is currently under negotiation) that are crucial for the green transition and this action will support the EU-Greenland partnership in the environmentally responsible creation of CRM value chains. Thirdly, the action will enhance Greenland's capacity to coordinate research activities and contribute to the protection of Greenland's biodiversity. Extensive research activity in Greenland, often by external stakeholders (notably on climate, environment, and natural resources), requires a more effective steer and coordination by local institutions to better reap the benefits of knowledge for its society and the global scientific community. This action's support to a Greenlandic research coordination body will assist in ensuring the needed steer, and enhanced ownership by Greenlandic duty bearers and rights holders. Greenland's fragile ecosystem is under threat by climate change hazards. This action will support biodiversity protection, while furthering the development of responsible eco-tourism.

The Green Growth action will be a key element of the EU's Global Gateway³ approach in the Arctic region also contributing to project Green Deal⁴ ambitions beyond EU territory.

As the energy and Critical Raw Material sectors are evolving fast, both regarding EU and Greenlandic policy and economic dynamics, this action will require some flexibility and adaptability to make the most out of opportunities for the EU-Greenland partnership.

This intervention will seek synergies with the recently started EU-Greenland Capacity Facility programme⁵, which supports Greenland's administration in formulating and implementing policies (particularly in sectors relevant for Green Growth), private sector development as well as with the ongoing budget support in education to build up needed skills in the population.

This action will also work towards facilitating increased European investment in strategic sectors. For instance, the action will seek to mobilise InvestEU,⁶ for which Greenland is eligible as part of the Overseas Countries and Territories (OCTs), with European banks such as EIB as possible partners for hydropower and its application (e.g., hydrogen, ammonia) and Critical Raw Materials.

2 RATIONALE

2.1 Context

Strategically located between the North Atlantic and Arctic Ocean, Greenland is, as part of the Kingdom of Denmark, an Overseas Territory associated with the EU. It is the world's largest island (20% of the total EU surface). With a population of around 57,000, it has globally the lowest population density (one inhabitant per 35 km²).

Dramatic exposure to climate change (the ice sheet is melting at the fastest rate of the last 12 000 years), pressures on the biodiversity of the territory, and a lack of economic diversification (strong dependency on the public sector, fisheries, and external support) as well as demographic changes of an aging population, pose both immediate and long-term challenges for Greenland's sustainable development.

² Ammonia can be used directly as fuel (no CO₂) and be converted back to hydrogen. The advantage to use ammonia as storage lies in the higher density, i.e., more storage of energy.

³ Joint Communication to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank The Global Gateway, JOIN/2021/30 final

⁴ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. The European Green Deal, COM/2019/640 final

⁵ Financing Agreement GL/2019/041-555 "Capacity Facility for Greenland"

⁶ Regulation (EU) 2021/523 of the European Parliament and of the Council of 24 March 2021 establishing the InvestEU Programme and amending Regulation (EU) 2015/1017

The EU and Greenland enjoy a longstanding, trusted and mutually beneficial partnership. A new geopolitical context reinforces the importance of this partnership: rising strategic interests in the Arctic region also by global players from further afield; increased efforts towards the much-needed green transition to combat climate change given that the Greenlandic energy system is mostly based on fossil fuels (oil represents 82% of total energy supply in 2020⁷); necessities to enhance strategic autonomy following disruptions caused by the pandemic and Russia's war of aggression against Ukraine.

Against this backdrop, the EU and Greenland share the ambition to broaden the partnership beyond the longstanding education and fisheries cooperation. This is manifested in the Multiannual Indicative Programme 2021-2027's new priority area of Green Growth aiming to diversify Greenland's economy. The aim is to contribute to the development of untapped potentials (renewable energy, sustainably sourced raw materials) and to contribute to address global challenges, notably climate change and biodiversity loss. This is in line with the EU Arctic Policy of 2021, notably the push for oil, coal and gas to remain in the ground, including in Arctic regions, building on partial moratoriums on hydrocarbons exploration in the Arctic⁸. In parallel, setting up a European Commission office in Nuuk is advancing.

2.2 Problem Analysis

Short problem analysis:

Greenland faces several challenges that this action seeks to address. Although Greenland coped comparatively well with the recent COVID-19 pandemic and repercussions from Russia's war against Ukraine, its current economic model might not be sustainable in the mid- to long term. It is economically and fiscally highly reliant on fisheries and external assistance. This leads to economic vulnerability to external shocks, political and financial dependence, and has economic effects such as seasonal unemployment and supply dependence. Being at the forefront of climate change and featuring a unique and rich fauna, its biodiversity is under threat by changing environmental conditions. In addition, Greenland is a focus of numerous research missions from international actors, but they are often not well coordinated with the local authorities and happen largely without involvement of the population – missing out on opportunities both for local engagement and access to traditional knowledge.

Diversification of the Greenlandic economy is difficult because of the island's remoteness and geography, limited administrative capacities, and the lack of a skilled workforce in sufficient numbers. So far Greenland has not seen substantial investment in raw materials and hydropower uses⁹. Lack of availability and accessibility of data and targeted studies about hydropower use cases and raw materials as well as the lack of comprehensive frameworks for impact assessments and for legal and industrial standards makes Greenland less attractive for investors in the two sectors compared to other destinations. Designated nature protection areas, as well as the accompanying surveillance of flora and fauna and development of sustainable tourism, are lacking particularly in Greenland's western part. Projects will have high demand in skilled labour (estimate for hydropower extension 700-1000 person for construction works alone), whereas the small working population (2022: 23 406 people) is mostly centred on administration as well as fishing and hunting and 82% of unemployed people have no education.

Greenland has, however, unique opportunities to diversify its income using natural features: the meltwater from the ice cap constitutes a huge hydropower potential and strategically important mineral resources are abundant. Greenland could become a producer of renewable fuels using hydropower, and CRM value chains could be developed.¹⁰

The Government of Greenland (GoG) Finance Bill for 2023 contains an outline of reform plans to address the long-term resource management for providing a sound basis for sustaining the financing of Greenland welfare

⁷ https://www.irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical_Profiles/North%20America/Greenland_North%20America_RE_SP.pdf

⁸ See: Joint Communication to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. A stronger EU engagement for a peaceful, sustainable and prosperous Arctic, JOIN (2021) 27 final

⁹ Except EIB and NIB involvement in supporting public use hydropower extension in Nuuk

¹⁰ This includes, for instance, significant deposits of lithium, fluorite, tantalum, niobium, hafnium, strontium, platinum group metals, tungsten, antimony, copper, vanadium, titanium metal, and potentially graphite, feldspar, germanium, and gallium.

state. The framework for the reform plans will be presented by GoG in a forthcoming Sustainability and Growth Plan II¹¹ (the successor of the Growth and Sustainability Plan 2016).

In the field of energy, hydropower is a significant example of the GoG's prioritisation and commitment to a development path oriented towards decarbonisation of the energy supply, economic diversification, and economic growth. Today, five hydropower plants provide six cities with green electricity accounting for more than 70% of the energy production in the public electricity supply and planned extensions combined with the construction of new plants will increase the share to close to 90%.

The largest known hydropower potentials in Greenland are situated in West Greenland. Three lakes have the potential to produce at least around 7.500 – 9.500 GWh/a¹². According to an analysis carried out in 2022 by BCG for the Government of Greenland, Power-to-X (PtX) applications, such as production of renewable hydrogen or ammonium, as off-take product exported from Greenland to Europe will be cost competitive both now and in the future.

The GoG and the state-owned company NunaGreen A/S have looked into the possibilities of inviting investors to set up off-take industries in an industrial park in Nuuk, planned to produce renewable hydrogen or ammonia. In autumn 2021, the Greenland Parliament (Inatsisartut) decided to attract investors to utilise the hydropower potentials by initiating a tender process to identify best suitable entrepreneur for the projects.

The coalition agreement between the ruling parties of *Inuit Ataqatigiit* and *Siumut* sets out the vision of full employment of the Greenland work force¹³. The new hydropower construction projects create job opportunities and require actions to ensure availability of the required domestic workforce. Accordingly, the technical and vocational education and training (TVET) activities facilitated with the EU budget support programme for the education sector will be useful for this purpose.

Expanding the hydropower supply in South Greenland can pave the way for the first mining of rare earth minerals in Greenland fuelled by renewable energy sources, an essential input for the carbon free technology to be used for the global green transition.

In particular, the scale up of hydropower will also enable production of green energy for the mining sector, e.g. through Power-to-X for green ammonia and renewable hydrogen, that can be transported from the production plants/electrolysers to mines having no access to the electricity infrastructure to supply mining equipment powered by fuel cells. With green ammonia to be used for generators applied for remote mining operations as well as for other remote off-grid production and heating purposes, a larger scale production of green ammonia could develop into an export article with potential for GoG revenue generation.

To meet international investors' requirements and expectations, the GoG needs to have an administration capable at handling the implied tasks and duties. Greenland's small administration could hamper swift processing of investment case handling, which may dissuade foreign potential investors due to increased transaction costs. In the past, slow case handling due to the limited GoG capacity posed problems during mining exploration operations¹⁴. Consequently, the GoG administration needs competencies and to expand the existing capacity and competencies (e.g. handling and regulation of investments in the energy and raw materials sectors).

A Memorandum of Understanding on sustainable raw materials value chains with the EU will be signed in 2023 (scheduled for November 2023), which aims at supporting the GoG in attracting investment and underpin matchmaking with European investors and mining sector actors. The accompanying roadmap will be supported by this action.

¹¹ The GoG *Sustainability and Growth Plan II* is expected to be published in 2023.

¹² As a comparison, in 2021 Greenland produced 603 GWh of electricity. See: <https://ourworldindata.org/grapher/per-capita-electricity-generation?tab=chart&country=~GRL>

¹³ Cf. GoG Coalition agreement, 4th April, 2022. [https://naalakkersuisut.gl/-/media/filer/koalitionsaftale/naalakkersuisooqatigiitsumaqatigiissut-03042022-final_dk-\(1\).pdf](https://naalakkersuisut.gl/-/media/filer/koalitionsaftale/naalakkersuisooqatigiitsumaqatigiissut-03042022-final_dk-(1).pdf)

¹⁴ See paper by Christiansen, FG, 2022: *Greenland mineral exploration history*.

Greenland's biodiversity, like in the Arctic as a whole, is menaced by climate change, as the region has been warming almost four times faster than the rest of the world in the last decades. Increasing demand for resources in the Arctic could put further strain on flora and fauna. While efforts to increase knowledge and to protect Greenland's biodiversity exist, there are still few projects anchored in Greenland's society or properly owned by Greenlandic actors. While Greenland's Northeast has considerable national parks, dedicated protection areas in the island's West are lacking to protect several species unique to that zone. Neither concepts, nor legislation or infrastructure exist as of yet to allow for a sustainable approach to eco-tourism that is expected to develop further with the completion of the new airports in the Western and Southern parts of Greenland. Additionally, there are still data gaps on biospheres that are crucial for biodiversity, CO₂ capture as well as the territory's fishing industry, such as the benthic ecosystem of the Arctic Ocean around Greenland.

Identification of main stakeholders and corresponding institutional and/or organisational issues (mandates, potential roles, and capacities) to be covered by the action:

The Greenlandic parliament and the University of Greenland are transversal duty bearers, respectively due to their roles in shaping the legislative and political framework as well as generating knowledge and research about the sectors targeted by this action. Engaging with the Greenland Business Association will allow for engaging with the territory's private sector on issues such as workforce availability and value chains. KNAPK, the fishermen's and hunters' association, will be able to give feedback on how the creation of economic developments and protection areas will affect traditional land use to allow for acceptance of rights-holders. Similarly, municipalities will allow for coordinating with the local population and their interests.

In the field of energy, the Greenland's public electricity provider Nukissiorfiit is in charge of operating the hydropower plants under extension and is already working on small scale renewable energy solutions (such as solar or wind). Nunagreen is the government's entity for attracting investment in hydropower and off-take industries.

For the creation of circular and sustainable critical raw material value chains, geological agencies such as the Geological Survey of Denmark and Greenland (GEUS), Geological Survey of Finland (GTK), EuroGeoSurveys as well as agencies providing satellite imagery such as DTU Space, European Space Agency, will be helpful to support improving geological data. Specialised entities such as EIT Raw Materials and European Raw Materials Alliance (ERMA) will be crucial for capacity building and matchmaking.

The considerable investment needs will necessitate engaging with the European and Nordic Investment Banks (EIB, NIB), the EBRD as well as national promotional banks.

For biodiversity protection and research coordination, the Greenland Institute for Natural Resources and the Arctic Hub are key institutions for knowledge creation and management, as well as implementation of the action's targets. Those institutions could in addition be channels to bring in traditional knowledge to increase buy-in and ownership of the population. Visit Greenland is promoting sustainable tourism.

2.3 Additional Areas of Assessment

2.3.1 Public Policy

Green Growth covers several sectors, which each are subject to specialised public policies adopted by the GoG. An overarching policy, the Sustainability and Growth Plan II, is currently being drafted by the government and this programme has the opportunity to support and contribute to this process. Covering the sectors of energy, mineral resources as well as biodiversity and research coordination this action will complement the GoG's energy and water strategy (2017), the mineral strategy (2020) as well as the biodiversity strategy (2021) and research strategy (2022). Investment in energy and mining is a priority of the government. The Arctic Hub is a joint project of the governments of Greenland and Denmark.

Greenland's Energy and Water Sector Plan (2017)

Policy framework

The sector plan for energy and water supply was adopted by the GoG in 2017. Nukissiorfiit is a public monopoly utility company owned by the government and responsible for the supply of electricity, water and heat to the public in Greenland population in 77 different towns and settlements in Greenland. Today, 70 per cent of the energy that Nukissiorfiit supplies for electricity and heating are based on green energy and comes from hydropower. The utility company has five hydropower plants, and in autumn 2021 the GoG decided that two new hydropower plants should be established: an expansion of Nuuk's plant to double capacity and a new hydroelectric plant in Disko Bay, which will supply two cities.

The sector plan has three main themes:

1. Lower prices for electricity and water: Introduction of uniform prices for electricity and water. The plan aims to ensure the public and business communities' access to cheaper electricity and water and support the establishment of new jobs – not least in the small towns and villages.
2. Green energy should be implemented wherever possible: In 2030, the goal is for the public energy supply to come from as much as possible renewable energy sources with up to 90% coverage.
3. Modernisation of the energy system: Energy production based on fossil fuels must be replaced with new energy technology, where this has not already happened. The means are hydropower, wind, solar, hydrogen, etc. and technological optimisation of the overall energy system.

Greenland's ice cap contains a significant amount of potential energy and when the ice is melting the hydropower potential increases significantly. Within the past 17 years the meltwater flow and thus the hydropower potential increased by 50 per cent because of climate change. This, in addition to technical progress, make PtX solutions (e.g. renewable hydrogen) based on Greenlandic hydropower increasingly competitive (for instance, lakes in Qeqqata could produce at least around 7.500 – 9.500 GWh annually, which could be used to produce between 150 000 and 200 000 tons of renewable hydrogen¹⁵),

In autumn 2021 the Parliament (Inatsisartut) decided on a scheme to attract foreign investors to better utilise the hydropower potential through a tender process for both constructing new hydroelectric dams as well as the take-off industry (e.g., clean fuel).). The selected entity will be granted an exploitation licence for the new hydropower plant of forty years (renewable for up to forty years). Generated surplus power from this large hydropower plant can be used for PtX solutions to a large scale, potentially opening for a new income source to support diversification of the Greenland economy in the long term. Additionally, in distant locations, where water potential is not available to establish hydropower currently, diesel power plants can be revamped to be run by clean ammonia instead.

The plan also introduces a comprehensive modernisation of the energy system partly with targeted optimisation and technological update of current plants, partly a targeted investment in new energy sources. This concerns also waste incineration, already integrated into the energy system in several places in Greenland used for local heating production. A new *Sector Plan for Energy and Green Transition* replacing the current sector plan (2017) is under development and to be launched in 2024 – 2025.

Policy relevance:

The Energy and Water Sector Plan (EWSP) is relevant as it proposes a plan to further the decarbonisation of Greenland's society while at the same time aiming to support the island's economic development and diversification by expanding the supply of clean and cost competitive energy to businesses. It also tackles the need to limit CO₂ emissions to allow for sustainable growth and Greenland's supply dependence, as the expansion of the current hydropower projects will increase the percentage of renewables in the public utility energy supply provided by Nukissiorfiit and increase self-sufficiency in the energy sector by lowering dependence on import of fossil fuels and

¹⁵ Assuming 48 kWh to produce 1 kg of hydrogen.

reduce CO₂ emissions. Particularly in South Greenland, the expansion of the existing hydropower station will decrease the share of households using fossil-based heating sources, e.g., through increased use of electric heating solutions. Moreover, the EWSP will pave the way for green electricity supply for Greenland's first green mining of rare earth minerals. Accordingly the planned expansion of the *Qorlortorsuaq plant* (with potential maturing of a co-grid connection with a new hydro plant in Taseq) in South Greenland from currently 35 GWh/a to 65 GWh/a can be utilised to convert oil-based heating from both public supply and private households in the two towns of Narsaq and Qaqortoq and to deliver green electricity to the Tanbreez mining project¹⁶ on exploitation of rare earth elements, which can be used in the global green transition and play a role in limiting the global CO₂ emissions. Six other mines operating in the area could potentially be connected with the expanded hydropower grid.

Policy Credibility

Attracting investors for the large hydropower potential and the off-take projects creates opportunities for diversifying Greenland's economy, making new income streams and new jobs for the Greenlandic workforce. The job opportunities will be created in relation to the construction activities, the operating activities and also in relation to the spin off possibilities, where excess green electricity or excess heat from an industry plant creates possibilities for new businesses such as green indoor farming.

Greenland's small administration introduces a risk of slow case handling, which can cause increased expenditures for the potential investor. To avoid this situation, GoG's administration will have to increase its case handling capacity and expand its technical capabilities (in house or external). During the proof-of-concept phase¹⁷, the Ministry of Agriculture, Self-sufficiency, Energy and Environment (MoASEE) will have to hire in extra staff. The energy section has estimated that three new positions are necessary from 2024 to 2028 in order to secure a timely and qualified handling of requests and analysis submitted by investors.

Greenland's Mineral Strategy 2020 – 2024

Policy framework:

The Government of Greenland has put in place a Mineral Strategy 2020 – 2024.

The overall vision of the strategy is to diversify the economy, create new jobs, skills and business for domestic enterprises and contribute with revenues to the treasury to the benefit of the socio-economic development of the Greenland society and welfare state.

The Mineral Strategy 2020 – 2024 contains five priority areas. The overall objective is to strengthen the mineral resources sector by improving the conditions of licensees (mining companies) while at the same time maximising Greenland's benefits from the new initiatives in terms of new jobs, increased revenues and knowledge and capacity building for the GoG administration.

The five priority areas are:

1. Improved sharing of geological knowledge
2. Efficient, predictable and transparent case administration
3. Simplified transition from exploration to exploitation
4. Sustainable development of the mineral resources industry
5. Competitive tax and royalty model

According to the Ministry of Mineral Resources and Justice (MoMRJ) mineral projects in Greenland do not progress from the exploration phase to the exploitation phase due to lack of investment. This is one of the reasons why the MoMRJ is supplementing the Mineral Strategy 2020 – 2024 with additional initiatives:

¹⁶ Tanbreez Mining signed a Memorandum of Understanding with the Greenland utility company Nukissiorfiit in May 2021. It is stated in the MoU that Nukissiorfiit will deliver 30 GWh of green power when Tanbreez starts its production.

¹⁷ Cf. tendering and licensing procedure: https://hydropower.gl/emner/tendering-and-licensing?sc_lang=en

1. *Direct marketing* targeting major mining companies with financial and technical expertise with e.g., construction and operation of mines to diversify the industry, which is dominated by junior exploration companies.
2. *Bilateral and multilateral cooperation* with e.g., the EU to support the mineral sector development directly and indirectly.

Policy relevance:

Generally, there is wide political consensus in Greenland to develop the mineral resources sector into a leading industry in Greenland. The GoG Mineral Strategy 2020 – 2024 provides the policy framework for the development of the sector for the current coalition government and the MoMRJ. It targets specifically the issue of lack of investment in the sector as well as overcoming it through international cooperation, increased availability and access to data, as well as building capacity in the relevant government administrations.

However, issues related to negative externalities linked with mineral exploration and exploitation activities has recently taken a prominent place in the public debate, particularly related to activities having potential risks to the fragile environment and public health, such as mining excavation projects in Greenland where uranium is found in the course of excavating other minerals. The policy of the GoG will thus be supplemented with support to the development and application of environmental, social and governance standards in the sector.

A Memorandum of Understanding (MoU) between the European Commission and MoMRJ on a *Strategic Partnership on Sustainable Raw Materials Value Chains* for metals and minerals, especially CRM, was approved on 5 October 2023 and will be signed in November 2023. CRM are an essential prerequisite for delivering on the EU's green and digital transition objectives and represents an enabling factor for decarbonising energy production and mobility ecosystems. CRM and other raw materials are in increasing demand in most key industrial ecosystems. The high resource potential for raw materials in Greenland combined with the EU's demand for minerals in the field of mineral exploration, exploitation and refining, makes a solid base for the MoU, supports the development of Greenland's mineral resource sector as a future supplier of raw materials to the EU and supplements the existing GoG policy in the sector. Under the MoU a strategic partnership roadmap for the period 2023-2027 (Roadmap) would contain concrete actions for cooperation and implementation. It is envisaged that the MoU would be based on the following five main pillars:

1. Economic and industrial integration of value chains for CRM and other Raw Materials.
2. Cooperation to leverage high international environmental, social and governance (ESG) standards.
3. Deployment of infrastructure for sustainable raw materials projects development.
4. Strengthen capacities and skills development along raw materials value chains.
5. Cooperation on research and innovation for prospecting, exploration, extraction, processing and refining of raw materials and supporting areas.

Policy credibility:

The GoG has made it a priority to develop the mineral resources sector and is committed to create conditions that allow for the sustainable exploitation of the mineral resources. The GoG joined the European Raw Materials Alliance in 2021. The implementation of the road map activities is compatible with the GoG absorption capacity limitations regarding available staff with the exception of the tasks of related to following Roadmap pillars:

Pillar 1 – 1.4: *Mapping of CRM*

Pillar 2 – 2.1: ESG

Pillar 3 – 3.2: Implementation of the EU INSPIRE (Infrastructure of Spatial Information in Europe) geodata framework

Pillar 5 – 5.2: R&I collaboration, that applies for funding for a project employee, cf. above.

Additionally, capacity building, engagement and training of GoG staff related to negotiating complex mining licences are envisaged by the GoG to be supported by the action. The capacity building concerns primarily implementation of

best practice for tax relating to (Greenland-EU etc.) cross border company structure, processing activities, refining, warehouse and / or sales.

Greenland's Biodiversity Strategy 2030

Policy framework:

The Greenland strategy on Biodiversity 2030 was adopted by the GoG in 2021 and encompasses the following five objectives:

1. Biodiversity must be protected through relevant legislation and sustainable management.
2. Living resources must be used sustainably.
3. The environmental condition must be improved for the benefit of nature and human health.
4. Research, monitoring and user knowledge must ensure a robust knowledge base about species and ecosystems.
5. Greenland's active participation in international cooperation must contribute to safeguarding the country's interests and contribute to global protection of biodiversity.

Policy Relevance

The strategy addresses the issue of biodiversity loss by calling for more protected areas. It also stresses the need for improved research, monitoring and knowledge, which is a prerequisite for effective protection. The biospheres of the Arctic region are interconnected, threats are therefore ultimately linked to global phenomena such as climate change and increased resource demand. As knowledge creation through research missions in the Arctic is highly internationalised, the focus on international cooperation is also relevant.

Policy credibility

The GoG will cover costs of project and communication management, park rangers, as well preparation and drafting of legislation. Technical expertise required (e.g., from the Greenland Institute of Natural Resources (GINR)) for input to baseline reports as well as technical assistance (TA) for communication campaigns is available in Greenland. Even though the GoG has allocated an additional staff member to support the project of establishing the two national parks, the relevant department will need additional administrative staff resources for project management during the project life.

The GoG Research Strategy

Policy framework

In December 2022 the GoG adopted a research strategy, being the first of its kind in Greenland. The vision is to ensure a good framework for research in Greenland for the benefits of society.

The research strategy has four overarching objectives:

1. Research must be anchored in Greenland.
2. Research must support a sustainable social policy.
3. Research results must be easily accessible to everyone.
4. The research effort must be at an international level.

Anchoring means that research must originate in Greenland and be more closely linked to Greenlandic society. It requires the involvement of the local population with their knowledge and expertise and to establish ethical guidelines for how research should take place in Greenland.

The Greenlandic research environment primarily comprises the *University of Greenland (Ilisimatusarfik)*, including the Center for Health Research, *the Greenland Institute of Nature*, *the Greenland Climate Research Centre*, *Asiaq*, *Arctic DTU Sisimiut*, *Steno Diabetes Center Greenland*, *the Greenland Research Council* and *the International Arctic Hub*. A number of other Greenlandic institutions also carry out research, including Greenland's National Museum & Archives, Statistics Greenland, Greenland's Language Secretariat, Greenland's Health Service and Greenland's Self-Government regarding basic geoscientific research.

Under the strategy, GoG will work to increase resources for research, which e.g., must go to the Greenlandic research institutions to ensure that Greenland can continue to be an important player in Arctic research at international level. Research is considered an important key to societal development that can help to solve social and environmental challenges and at the same time develop new businesses that create economic growth. environment and culture.

Policy relevance:

The policy addresses key issues related to the coordination of international research missions carried out in Greenland as well as engagement with local communities and dissemination of findings, all of which are lacking at the moment.

Policy credibility:

As this is a new policy, there is limited track-record of the research strategy. The Arctic Hub has been endowed by the governments of Greenland and Denmark and is engaging with the population, establishing best practices for international research in Greenland and tracking research activity.

In conclusion, the policies are sufficiently relevant and credible for budget support contract objectives to be largely achieved. Therefore, the policies can be supported by the Commission with the proposed budget support contract.

2.3.2 Macroeconomic Policy

Macroeconomic indicators

The economy of Greenland is marked by a large public sector, employing around 40% of the work force. Also, public consumption is comparatively high (constituting around 44 per cent of GDP) compared to private consumption (35 per cent of GDP), cf. table on Greenland national accounts below. When compared to other countries (Nordic and EU) this characteristic makes Greenland a special case.

Table on trends in key Greenland national accounts indicators, including GDP. Annual (real) growth rates (in per cent). 2017-2023

	Share of GDP in 2019	2017	2018	2019	2020	2021	2022	2023
		GEC forecast						
Household consumption expenditure	35.0	0.9	1.5	-0.1	1.6	1.5	0.2	0.3
Government consumption expenditure	43.8	1.7	3.0	4.4	-2.1	1.0	0.4	0.4
Gross investments (fixed capital formation)	33.3	-4.1	-6.9	53.3	5.9	3.3	5.2	-4.4
Export of goods and services	41.1	-3.8	3.6	-10.4	-6.2	1.5	2.0	2.0
Final demand	151.2	-1.4	1.7	6.8	-0.7	1.7	1.8	0.5
Import of goods and services	51.1	-3.5	2.4	14.5	-2.8	2.8	2.2	-2.9
Gross domestic product	100.0	0.1	0.6	2.3	0.4	1.2	1.6	0.8*

Note: 2017-2018 are final figures; 2019-21 are provisional figures; 2022-23 are forecast estimates made by the Economic Council.

Sources: Greenland Economic Council, Annual Report 2022, Autumn 2022. *GEC Report 1st half year 2023.

Of the total population of 56,735 (April 2023), the proportion of the working population relative to the total population is 67% (the employment rate). Greenland has a high rate of employment compared with the Inuit-

majority Canadian territory of Nunavut (and Canada generally) and is on par with the EU. The employment rate constitutes one indicator out of eighteen performance indicators that GoG applies to monitor progress¹⁸ in achieving overarching policy goals on sustainability and to tackle underlying structural socioeconomic problems. market Employment in 2022 was in progress as judged by the number of registered jobseekers reaching its lowest level ever. Unemployment has fallen throughout the country for a number of years to 5% of the labour force (18-65 years of age) in 2022. There is a shortage of skilled labour, and the pressure on the labour market is very significant, especially in Nuuk and in larger cities to the north, where the need for foreign labour is increasing. According to population statistics for 2022, there were 1,928 foreign nationals living in Greenland, which is a doubling since 2008. In particular, the number of nationals from Thailand and the Philippines has increased.

According to the Greenland Economic Council (GEC), the low unemployment rates indicate a particular need to attract foreign labour to avoid an overheating of the labour market. Structurally, the main challenge is the significant differences in the population's connection to the labour market, which are inextricably linked to education and vocational skills. Unemployment among people without education after primary school was 8.4 per cent in 2019 against 2.5 per cent for persons with vocational education and 0.4 per cent for people with a higher education. The objectives of the Greenland Education Programme – which benefits from a budget support programme by the EU - aims at raising the education seeking behaviour of the young population groups finalising primary and secondary school and efforts to reduce dependency of imported high skilled labour therefore still holds high relevance. According to the GEC Greenland's economy has managed comparatively well through the crises of recent years. The observed trend is expected to continue in 2023 with GEC forecasts on 0.8% growth in real GDP, cf. table above, in line with the forecasted EU average growth rate on 0.8% for 2023¹⁹.

The economy grew by 1.2% in 2021 with economic progress continuing in 2022, due mainly to the construction activity related to the large airports construction projects in the cities of Nuuk and Ilulissat, complemented by contribution from the fishery sector. After some difficult years during the covid pandemic, tourism also rebounded strongly in 2022. The number of cruise ships visiting Greenland have increased significantly in 2022.

The construction sector constitutes a significant indicator for the business cycle and economy in Greenland. Measured by number of jobs and production value, the construction sector is 3-4 times larger than the tourism industry.

In addition to the two main components, construction and consumption, the fisheries sector also contributed to economic growth. The export value for 2022 increased to DKK 5.92 million (EUR 0.79 million) from DKK 5.06 million (EUR 0.68 million) in 2021 (an increase of 17.2%). Exports of fish and fish products make up the bulk of revenue from abroad and are worth over DKK 5 billion (EUR 0.7 billion), equivalent to roughly 91% of total goods exported. This makes the economy very vulnerable to fluctuations in the fisheries sector, for example, with regard to prices and quota sizes.

Inflationary pressure has been modest as compared to other countries. In July 2022, consumer prices were 2.2% higher than the previous year. In particular, energy prices have risen far less than in the rest of the world. The publicly owned company Polaroil also has obligation to supply oil and diesel products to Greenland via a service contract. Before Russia's war of aggression against Ukraine, price protection agreements were concluded for the period 2021 to 2023. The fixed prices for oil products have so far shielded the Greenland economy from price increases on energy products and accordingly the price protection agreements contribute to the modest inflation.

GEC expects inflation just over 5% in 2023, the highest inflation rate observed since 2008-2009. Inflation in Greenland mainly related to international developments. With the expiry of the Polaroil price protection agreement on oil products at the end of 2023, GEC foresees uncertainty for the development of consumer prices in 2024.

Assessment of macroeconomic policies

Greenland's economy has shown sound growth rates before the COVID-19 pandemic with 2.3% in 2019 and the economy also seem to be coping well with the challenges related to the disruptions in global economy related to

¹⁸ The GoG reports progress in these 18 performance indicators in the annual *Political Economic Report* and the indicators relate to the Growth and Sustainability Plan (2016).

¹⁹ Cf. https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/winter-2023-economic-forecast-eu-economy-set-avoid-recession-headwinds-persist_en

Russia's war of aggression against Ukraine, in particular global high inflation This is also due to structural characteristics of the Greenland economy. For instance, fisheries have been affected only marginally by changes in global economic conditions where uncertainty is primarily related to the price development of seafood. Finally, the large public sector and the Danish block grant, constituting more than half of public revenues (approximately 55%:DKK 3.9 billion (EUR 525.6 million) in 2021), provides a significant stabiliser against the economic vulnerability to and dependence on international economic conditions.

The long-term political goal of the Government of Greenland is to establish a more independent economy based on its own resources and with a greater integration into the global economy. A gradual reduction of the Danish block grant as percentage GDP has been identified as one of the GoG policy indicators towards the achievement of a sustainable economy. The share of the Danish block grant as percentage of GDP has been reduced from constituting 30 per cent in 2003 to 19.4 % in 2020 indicating progress in this sustainability indicator²⁰. The main risks relate to inflation depending on the future trend of international prices on the domestic economy. Higher energy and producer prices will eventually be passed on to consumers, but the timing depends on many factors, including price protection agreements, etc.

Due to a pause in exploration permits during the pandemic, the activity within raw material exploration and extraction has also been influenced by the global economic development. In 2020, investments in mineral exploration amounted to DKK 85.5 million (EUR 11.4 million), which is the lowest level in the past 10 years. Activity related to mineral exploration in 2022 is expected to be in the order of DKK 200 million (EUR 26.6 million) on par with pre-pandemic levels. As of September 2022, there were nine advanced mineral projects, of which two were in operation and one project in an initial construction phase. Global price fluctuations as well as the increasing focus on European self-sufficiency is a strong contributing factor to the interest in raw material exploration. GEC therefore emphasises the need for GoG to provide transparent, sustainable and stable framework conditions for resource exploration and mining.

Gender equality

A gender-wage gap exists in Greenland. In 2021, women in Greenland had an average gross income of DKK 240,000 (EUR 32,000), while men had DKK 295,000 (EUR 39,330). Thus, men's average income level is 23% higher than women's²¹. The country acceded the ILO C100 Convention on Equal Pay for Men and Women, there is also a national act ensuring equal pay (Act no. 32 of 4 February 1976). However, equality within the work sphere is questionable. Women are underrepresented in management positions, especially in the top ones. Gender segregation by occupation was mentioned above and the issue continues over women's retirement, facing greater vulnerability, having fewer opportunities regarding a pension.

GoG liquidity and debt

The total net interest-bearing debt - GoG companies is included - is expected to decrease from DKK 5.9 billion (EUR 0.78 billion) in 2023 to DKK 5.1 billion (EUR 0.68 billion) in 2025. However, in the projection of the GoG debt, the loans for the implementation of major hydropower investments have not been included.

As there was great uncertainty associated with the extent of the COVID-19 crisis, there has also been great uncertainty about the implied draw on the liquidity reserves and buffers. However, the crisis has been less profound than expected and accordingly the draw on liquidity reserves has been smaller than anticipated. At the end of March 2022, the government's residual debt amounted to DKK 83.2 million (EUR 11.2 million), with liquidity of approximately DKK 1.3 billion (EUR 158.4 million). Since liquidity outweighed debt, the government had net assets of approximately DKK 1.1 billion (EUR 147.3 million).

Climate change

Climate change is expected to directly affect the fisheries and hunting sectors in Greenland, where traditional ways of fishing and hunting are already challenged due to the increasingly unpredictable weather patterns and the loss of sea ice cover. An active climate policy is pursued by the Government. Around 70% of the publicly produced electricity comes from renewable energy sources (mainly hydroelectric power) and possible new sites for hydroelectric plants have been identified. However, currently 80% of the total energy supply comes from oil (82%

²⁰ Political Economic Report, 2022. The Ministry of Finance, Government of Greenland.

²¹ Statistics Greenland 2021, Greenland in Numbers, May 2023.

in 2020²²). Further resources are allocated to research and development of renewable energy resources and energy efficiency, including operation of energy facilities requiring technical expertise and skills training in order to supply the sector with a domestically based workforce.

GoG declared that the Paris Agreement ratified by Denmark does not apply to Greenland. However, after the last parliament elections (2021) the GoG is now considering abolishing this reservation. Implications for entering into the Paris Agreement are currently being reviewed by the GoG. According to an independent review²³ by Kammeradvokaten, a possible solution will be that GoG in cooperation with the Danish government develops a separate climate plan for Greenland in addition to the Nationally Determined Contribution NDC that Denmark already has communicated via the EU. This solution will allow Greenland to uphold preferred exceptions e.g., reduction obligations related to raw mineral exploitation and the shipping sector.

Social inequality

Income inequality - as measured by the Gini-coefficient²⁴ on disposable income (2020) - is greater in Greenland (35%) than the average for all Nordic countries, including Denmark (27%)²⁵. After a declining trend in income inequality from 2005 -2009, the trend in the following years has shown an increasing tendency except for the latest available year of calculation (2020) showing a slight decline²⁶.

Future fiscal sustainability challenges

Even though the Government of Greenland has pursued a balanced fiscal policy in recent years up to the COVID-19 crisis, Greenland's economy will face an important future challenge due to demographic changes from a combination of increase in the share of the older population (65+ years) relative to groups at working age (20-64 years) and shrinking income sources in the coming 25 year period²⁷.

This trend puts increasing pressure on the public finances, which results in a deficit on the public balance. The deficit will be around 3 per cent of GDP from around 2035, when the share of elderly people in relation to the population are highest. This corresponds to an annual gap in funding of approx. DKK 1 billion/EUR 133 million (calculated at 2020 level). According to the recent report from the GEC²⁸, this shows the pressing need for reform for the public economy. The forthcoming GoG *Growth and Sustainability Plan* (2023) is expected to address these sustainability issues.

In conclusion, the authorities are pursuing a stability-oriented macroeconomic policy and the eligibility criterion is met.

2.3.3 Public Financial Management

The EU budget support modality has been a key reform driver in the Greenland public finance management system, well acknowledged by the Government of Greenland with the Public Finance Management (PFM) reform monitored and evaluated in the annual PFM progress reports according to the multi-annual PFM Action Plan. Based upon a recommendation by the external auditor the Audit Committee of Inatsisartut (Parliament) has since 2018 received the annual PFM Progress Report prepared for the European Commission.

The last Public Expenditure and Financial Accountability (PEFA) assessment 2021/2022 confirmed the previous PEFA assessment from 2014 that the Greenland PFM system is functioning to good quality standards. Overall,

²² https://www.irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical_Profiles/North%20America/Greenland_North%20America_RE_SP.pdf

²³ As stated in an assessment of consequences and policy options for the GoG on accessing the Paris agreement, *Notat om konsekvenserne for Grønland ved tiltrædelse af Parisaftalen*, Kammeradvokat "Poul Schmidt", January 2023. Cf. https://naalakkersuisut.gl/-/media/horinger/2023/02/0602_parisaftale/da-bilag-2--notat-om-konsekvenserne-for-grnland-ved-tiltrdelse-af-parisaftalen-poul-schmith-kammerad.pdf

²⁴ A Gini coefficient with the value 0 represents a perfectly equal distribution, while the value 100 represents a perfectly unequal distribution.

²⁵ Statistics Greenland 2023, *Greenland in Numbers*, May 2023.

²⁶ Statistics Greenland, *Income Statistics*. October 2021.

²⁷ Source: Report Greenland Economic Council 2017 and GEC Annual Report 2022.

²⁸ *GEC Annual Report 2022: Business cycle, Economic Policy Assessment and Sustainability, Autumn 2022*. September 2022.

comparison of 2020/2021 performance with in the PEFA of 2014 shows that 10 indicators have improved, 5 declined, and 13 stayed the same signifying commendable performance.

However, despite the observed progress, the PEFA assessment 2021/2022 also identified some weaknesses, which are being addressed in the PFM Action Plan. The 2022-2024 PFM Action Plan provides a structured approach to address the identified weaknesses and monitor continued reform progress over time. Based on the Greenland 2021/2022 Agile PEFA assessment the following six main areas have been identified to be included in the PFM Action Plan 2022-2024:

- Presentation format of the draft fiscal bill and the fiscal bill (PI-05)
- Sector planning, sector budgeting and monitoring (PI-08)
- Fiscal risk reporting (PI-10)
- Procurement (PI-24)
- Internal Audit (PI-26)
- Cross-cutting improvements in ERP underpinning of the PFM system

The on-going PFM Action Plan provides a structured approach to monitor reform progress over time according to the following framework:

- Follow-up is done informally on a regular basis by the implementing entities and in the form of presentations at the six-monthly Policy Dialogue meetings with the European Commission, and formally through the annual progress reporting;
- The PFM Action Plan has political buy-in, and it is well-understood among politicians (and within the administration) that satisfactory progress in developing PFM. The Ministry of Finance (MoF) and its underlying agencies are all supportive of the PFM reform process.

As proposed in the PFM Action Plan the GoG has established a PFM Reform Steering Committee and a working group to prepare and manage a detailed masterplan following the outline of the PFM reform document. As per most recent PFM progress update (May 2022) the following eight targets under the six areas of the PFM Action Plan 2022-2024 were met, cf. table on targets and achievements below. A total of 4 out 8 targets were met making a 50% achievement as per May 2022.

Area	Focus areas for improvement	Targets Met/Total #
PI-05	Macroeconomic and macro fiscal-context in the draft to the Finance Act	1/1
PI-08	Sector planning, sector budgeting and monitoring	0/1
PI-10	Fiscal risk reporting	0/1
PI-24	Procurement management	2/2
PI-26	Internal Audit	1/2
Overall	Cross-cutting improvements in the ERP system	1/1
Result in total		4/8 = 50%

Domestic revenue mobilisation

After a number of years with GoG Fiscal Act (the GoG budget) in surplus, there has been a marked shift to a significant deficit in 2020 and 2021.

The Fiscal Act for 2023 operates with an aggregated surplus of DKK 16.2 million (EUR 2.2 million) for the entire period budget 2023-2026. The Fiscal Act thus fulfils the Budget Law requirement that the budget must - *on average* - balance or be in surplus over a mid-term 4-year horizon (including the fiscal year and the three projected budget years).

The GEC also points to a significant and increasing risk exposure for the Treasury from the GoG owned companies, which must be included in the assessment of the degrees of freedom for the future GoG economic policy. A negative economic development in one or more of these companies can have major consequences for the Treasury. Activities carried out by fully or partly GoG owned companies are often systemic and of crucial importance to society, such as airports and air transport, and these companies therefore cannot be shut down in the event of financial challenges putting the financial risk on the GoG.

A recent analysis of the DANMARKS NATIONALBANK indicates that the tax base is relatively narrow, with a strong emphasis on the taxation of earned income, taxes on imported goods and the economic rent tax on fish and shellfish. Income taxation is characterised by an imbalance between high taxation of earned income and very lenient taxation of income from capital. Homes are not subject to regular taxation via, for example, a value tax or a tax on the right to use of land. Land is common property in Greenland, but the right of use can be transferred to a private user. The lack of housing taxation increases inequality in society, as homes are typically owned by families with higher-than-average incomes.

Taxes are levied on a number of goods, in particular imports. However, taxes on imported oil and diesel products are remarkably low, which helps make the consumption of fossil fuels inexpensive. About 82 per cent of Greenland's total energy consumption is still covered by fossil fuels despite increasing use of hydroelectric power and waste heating. Compared to other countries, the taxation of fossil fuels and thus greenhouse gases are lenient in Greenland.

GoG has announced the initiation on introducing a tax reform. The GEC²⁹ has pointed to a number of problems in the current tax system also with the interplay between the tax system, the social benefits system and the housing policy. GEC recommends that a forthcoming tax reform should be aligned with a green reform agenda e.g., by introducing taxation on CO2 emissions.

In conclusion, the public finance management reform strategy is sufficiently relevant and credible, including on domestic revenue mobilisation, and the eligibility criterion is met.

2.3.4 Transparency and Oversight of the Budget

The annual Finance Law process starts with the preparation of the political-economic report, which describes the economic situation and priorities in the upcoming Finance Bill. The report is written at the beginning of the year and will be discussed at the Parliament/Inatsisartut's spring collection. During the spring, the Ministry of Finance prepares a so-called basic budget, adjusting for expected revenue and expenditure, which is followed by negotiations. Once GoG/Naalakkersuisut has approved the final financial bill, it is presented to the public in mid-August, where it is also submitted to Parliament.

Government must present to Parliament the annual accounts and the audit report at the latest at its Autumn Session, which in practical terms means by early September of the following year. However, both documents are generally submitted to Parliament during the Spring Session (year N+1) where they undergo a first reading and are then referred to the Audit Committee. The 'entry point' remains met as Naalakkersuisut's the Finance Act proposal 2023 was published in August 2022, with the 2023 Finance Act passed and published on 14 November 2022.

In conclusion, the relevant budget documentation has been published and the eligibility criterion is met.

3 DESCRIPTION OF THE ACTION

3.1 Objectives and Expected Outputs

The Overall Objective of this action is to support Greenland's sustainable development and economic diversification

The Specific Objective of this action are to

²⁹ Greenland Economic Council (GEC): *Annual Report 2022: Business cycle, Economic Policy Assessment and Sustainability, Autumn 2022*. September 2022.

1. Increase the use of renewable energy for clean fuels production
2. Enhance the sustainable development of new raw material value chains
3. Expand the protection of biodiversity and the environment as well as promote climate action and gender equality

The Outputs to be delivered by this action contributing to the corresponding Specific Objectives are:

Contributing to Specific Objective 1:

- 1.1 Increased capacity of the government of Greenland in renewable fuels industry
- 1.2 Enhanced knowledge and data on renewable energy solutions and clean fuels production, particularly hydropower offtake industries
- 1.3 Improved access to finance in the energy sector

Contributing to Specific Objective 2:

- 2.1 Improved geological knowledge and data access for mining sector stakeholders
- 2.2 Improved capacities of Ministry of Mineral Resources and Justice staff in regulatory framework as well as licensing and environmental, social and governance standards in the mining sector
- 2.3 Improved access to sustainable finance in the mining sector

Contributing to Specific Objective 3:

- 3.1 Increased knowledge of national stakeholders on marine ecosystems
- 3.2 Strengthened capacities of the government of Greenland to protect of the environment and biodiversity
- 3.3 Strengthened capacity of the Arctic Hub to coordinate research and scientific outreach
- 3.4 Strengthened capacities of the government of Greenland to support development of sustainable tourism
- 3.5 Improved actions of local stakeholders on gender balance in relevant employment fields

3.2 Indicative Activities

Activities relating to Output 1.1

- Staffing up and building competencies of the department of energy to handle investment cases and attract investors for Power-to-X
- Support to a new renewable energy strategy and climate strategy, including a regulatory framework for hydrogen

Activities relating to Output 1.2

- Studies and technical reports on hydropower offtake industries and industrial parks
- Exploration of wind power potential

Activities relating to Output 1.3

- Development of hybrid renewable energy solutions, including for off-grid industrial/mining projects
- Support to development of business cases and marketing
- Matchmaking, engagement with finance institutions and structures, such as InvestEU

Activities relating to Output 2.1:

- Geological, geochemical and geophysical surveys, mineral mapping and data analysis
- Digitalisation of geological data, creation of a database on geological data to facilitate investment

Activities relating to Output 2.2:

- Capacity building of Ministry of Mineral Resources and Justice staff on licensing and standards
- Support to joining the Extractive Industries Transparency Initiative

Activities relating to Output 2.3:

- Business forums and matchmaking for sector stakeholders, engagement with finance institutions and programmes, such as InvestEU
- Support to the development of investment projects, e.g., through the European Raw Materials Alliance

Activities relating to Output 3.1:

- Studies on marine ecosystems

Activities relating to Output 3.2:

- Creation of additional nature protection areas
- Outreach activities and dissemination campaigns on biodiversity and nature protection

Activities relating to Output 3.3:

- Capacity reinforcement of the Arctic Hub for improved coordination of international research in Greenland
- Outreach activities and dissemination campaigns on research work

Activities relating to Output 3.4:

- Development of visitor centres and signage to protect natural sights
- Engagement with and outreach to local communities
- Development of a framework for sustainable cruise ship industry practices

Activities relating to Output 3.5

- Outreach campaigns and dedicated training

3.3 Mainstreaming

Environmental Protection & Climate Change

The main final beneficiaries of the action will benefit from improved income opportunities, social protection and social security. Specifically, the action will aim at improving women's participation in the value chain, through adopting gender transformative approaches. The green transition will contribute to the efforts of mitigating the effects of climate change and environmental degradation. Nature-positive tourism will protect biodiversity and will contribute to multiple provisioning, regulating and supporting services of the ecosystem that will build resilience to Climate Change. These efforts can be further integrated into the results of the proposed action to capture data disaggregated by sex. Digitalisation will be among the cross-cutting issues in all the dimensions of the action for the development of innovative services and solutions to economic actors and populations.

Outcomes of the SEA screening (relevant for budget support and strategic-level interventions)

The Strategic Environmental Assessment (SEA) screening concluded that an SEA should be undertaken.

As the action includes activities implying large construction activities, including hydropower and mining, to be established in natural habitats located in a fragile environmental context with specific geographically related key environmental and climate-related aspects, these need to be addressed.

Outcomes of the EIA (Environmental Impact Assessment) screening (relevant for projects and/or specific interventions within a project)

The EIA (Environment Impact Assessment) screening classified the action as Category B (for which an EIA should be undertaken). As the action includes support to the establishment of activities such as and the construction of hydropower plants and related PtX industry and mining projects with potential hazardous environmental risks in fragile natural habitat areas with existence of possible cultural heritage, and areas local population use for hunting and recreational purposes today, an EIA should be undertaken at the level of the partner government before these activities are carried out to inform on any direct and indirect significant impact of the projects whose development is supported by this action, related to environmental factors, including and among other potential aspects, population health, and biodiversity.

Outcome of the CRA (Climate Risk Assessment) screening (relevant for projects and/or specific interventions within a project)

The Climate Risk Assessment (CRA) screening concluded that this action is no or low risk (no need for further assessment), as the action addresses key aspects related to decarbonising the largest emitters of carbon dioxide in key Greenlandic business industries, such as the fishery and shipping industry, as well as the action will support

the Government of Greenland's strategies related to green transition in energy supply percentage of renewables in the public energy supply from currently 70% close to 90%,

Gender equality and empowerment of women and girls

In 2021, the Committee on the Elimination of Discrimination Against Women (the CEDAW Committee) examined Greenland's fulfilment of the rights stipulated in the Convention on the Elimination of All Forms of Discrimination against Women (the CEDAW Convention)³⁰. The key reason for focusing on women's rights in Greenland is the intersectional identity of most Greenlandic women as being indigenous (Inuit) and spread out over a vast territory. Therefore, the majority of Greenlandic women could be categorised as indigenous and rural³¹. The CEDAW Committee has repeatedly expressed its concerns regarding lacking adequate information and disaggregated data on gender equality³², another area of concern is impact of climate change on rural women. That is why this action shall partially address this outstanding issue and collect a basic set of data on women in all their diversity through the action's indicators and targets as outlined in the document's logframe.

As per the OECD Gender DAC codes identified in section 1.1, this action is labelled as G1. This implies that in its implementation, Green Growth will mainstream gender equality in including gender analysis in design of activities and in aiming at increasing gender balance in employment field as relevant to this action. Data collection and specific research on the gender-specific impact of the climate crisis potentially affecting indigenous women, especially those dependent on traditional Inuit livelihoods, can be envisaged by this action.

OCTs are part of the territory of the Member States and are subject to the respective national legislations which include a progressive application of the European legislation in this matter even though OCTs are not bound by the Community acquis. The outlined action shall pay attention to the 2021 CEDAW Committee concern regarding rural women and their potential displacement caused by resource extraction and infrastructure projects. The EU has to be sure that no unsolicited and involuntary population displacements take place as a consequence of this action.

While not directly applicable, the action will be gender mainstreamed and aligned with the EU Gender Action Plan III (GAP III), namely to the thematic area of engagement: '*Addressing the challenges and harnessing the opportunities offered by the green transition and the digital transformation*', Specific Thematic Objective – 2 '*Strategies and agreements on climate mitigation, adaptation, disaster risk reduction and sustainable management of natural resources and biodiversity are more gender-responsive, at local, national, regional and international level*'.

Human Rights

The action underpins the overall self-government of Greenland and the aspirations of preserving the Inuit culture, identity, rights and values. The action will respect the 5 working principles of the human rights-based approach: respecting all human rights, non-discrimination, accountability, and transparency principles, as well as ensuring participation of all stakeholders. The action will equally reinforce the capacities of the duty bearers/public authorities, through improved capacity on enforcement and compliance with social regulations. The Action is aligned with the EU's Action Plan on Human Rights and Democracy 2020-2024.³³

Disability

As per OECD Disability DAC codes identified in section 1.1, this action is labelled as D0. Nonetheless, the action will ensure that the rights of women and men with disabilities are going to be respected, and the envisaged interventions are disability responsive and inclusive. The action is going to invite the organisations representing persons with disabilities when possible and it will make sure that (at least physical) accessibility of planned events is guaranteed.

³⁰ The examination covered also Denmark and the Faroe Islands

³¹ KJÆRGAARD, S.F. (2023). *Examining Gender Equality in Greenland in the Last Thirty Years: An Investigation through the Lens of the CEDAW Convention's Examinations* Siberica Vol. 22, No. 1, Spring 2023: 82–108

³² Ibid.

³³ EU Action Plan on Human Rights and Democracy 2020-2024, JOIN(2020)5

Reduction of inequalities

Reduction of regional disparities is targeted through the piloting of small-scale renewable energy. Actions will give special attention to keeping value creation in Greenland and economic developments profiting local communities and Greenlandic society at large.

Democracy

The action supports a green transition of the economy lead within the self-government framework of Greenland. Active involvement of communities and civil society through consultations during identification, implementation and monitoring.

Conflict sensitivity, peace and resilience

Rights holders and duty bearers' consultations before and during implementation will seek to avoid contention around the action's activities. Support for the green transition of Greenland's economy based on local resources and solutions makes the economy more resilient.

Disaster Risk Reduction

Support to the coordination of research and increased engagement of international research missions with local populations and issues may increase knowledge conducive to improved disaster risk preparedness, particularly in regard to consequences of climate change hazards. Renewable energy solutions for remote locations and less dependency on imports will make Greenland's society less vulnerable, including in the case of disasters.

Other considerations if relevant

None

3.4 Risks and Lessons Learnt

Risks	Likelihood	Impact	Mitigating measures
Strategies of Greenland relevant for the priority area are not being adequately implemented.	Medium	Medium	Policy Dialogue Support measures Monitoring
Lack of external investment for renewable energy and raw materials sector	Medium	High	Matchmaking Mobilisation of investment instruments Technical assistance
Economic diversification results in increased environmental damage.	Medium	Medium	Impact studies of relevant projects Rights holders and duty bearers' consultations
Political instability and change of priorities	Medium	High	Collaboration Advisory support to GoG on key areas
Limited GoG capacity to handle administration of the action activities/projects	High	High	Support to Human Resources/GoG staff scale up on identified areas TA provision for Monitoring and Evaluation and reporting requirements
A gender-blind, neutral, or negative context and problem analysis could reinforce existing	Medium	Medium	Knowledge and tools of gender mainstreaming are available.

gender inequalities and lack of upholding of human rights in the sector and hinder the efficiency and sustainability of the action.			Gender-sensitive monitoring, use of sex disaggregated data, and gender-sensitive indicators. Gender mainstreaming is applied in all phases of the support services.
Lack of political acceptance of local population of large scale mining and hydropower project	Medium	High	Outreach to affected populations. Policy dialogue

3.5 The Intervention Logic

The action has the overall objective of contributing to a sustainable diversification of the Greenlandic economy. It consists of three objectives: (i) increased production of renewable energy for clean fuels production; (ii) enhance the development of new raw material value chains; (iii) expand the protection of biodiversity, environment as well as promote climate action and gender equality.

To increase the use of renewable energy and to diversify economic output, this action will support green fuel (e.g., hydrogen) value chain development and the decarbonisation of society and industry. Greenland can produce electricity through hydropower from meltwater of the ice cap for a competitively low price. It is therefore in a unique position to become an important producer of renewable green hydrogen, ammonia, and other derivatives for use in in hard-to-decarbonise sectors, and in energy-intensive processes; both for domestic use and for export including to European industries. With ongoing investment schemes into large scale hydropower for commercial use, this action will support the government of Greenland to create the enabling environment for a green hydrogen economy as an offtake use (policy development, regulatory framework, government capacity, investment assessment, business cooperation, access to finance). While Greenland has been successful in reducing its carbon emissions related to electricity in the past years, heating, transport and industry highly depend on fossil fuels. This action supports the government of Greenland in its efforts to increasingly decarbonise these sectors, e.g., through renewable energy solutions for upcoming mining operations.

Greenland has important deposits of Critical Raw Materials (25 of 34 minerals listed by the Commission) and will sign a MoU with the EU in November 2022³⁴ on CRM. To contribute to the diversification of Greenland's economy, European supply chain security and the global green transition, this action proposes support to the government of Greenland in their efforts to attract investment (e.g., data collection, analysis and availability) and in making sure that resources exploitation benefits Greenlandic society and environmental, social and governmental standards are upheld and enforced.

Particularly renewable energy and mineral resources are evolving sectors. EU action will have to flexibly adapt to arising needs and opportunities. Therefore, this pillar will have a flexible set-up in the way it provides support. As these two sectors require substantial investment, they will also be the focus of promotion of European investment and business cooperation, in close coordination with development bank such as EIB and making use of InvestEU mechanisms.

This action will also support measures by the government of Greenland to protect Greenland's biodiversity and environment, under menace by climate change and human activity. To protect wildlife and to engage with the population on these issues, development and establishment of a new national park in the West of the country (extensive national parks only exist in the North-East) may also be supported, as well as projects to promote sustainable tourism and monitor biodiversity. This will protect local species and increase knowledge, while at the same time allowing for local economic development. In addition, information campaigns and engagement with the local population and Greenlandic youth will increase awareness and promote (traditional) knowledge exchange.

To improve the coordination of research and to make it more accessible to Greenland's population, the Arctic Hub, a body created and funded by the Danish and Greenlandic governments, will also be supported by this action.

This action will be implemented by a sector reform performance contract complemented by a contribution agreement with a or several specialised entrusted entities for the implementation on goals related to Critical Raw Material and Power-to-X value chains, or, as a fallback option, procurement and grants.

³⁴ The EU also recently updated its CRM legislation.

3.6 Logical Framework Matrix

This indicative logframe constitutes the basis for the monitoring, reporting and evaluation of the intervention.

On the basis of this logframe matrix, a more detailed logframe (or several) may be developed at contracting stage. In case baselines and targets are not available for the action, they should be informed for each indicator at signature of the contract(s) linked to this AD, or in the first progress report at the latest. New columns may be added to set intermediary targets (milestones) for the Output and Outcome indicators whenever it is relevant.

- At inception, the first progress report should include the complete logframe (e.g., including baselines/targets).
- Progress reports should provide an updated logframe with current values for each indicator.
- The final report should enclose the logframe with baseline and final values for each indicator.

The indicative logical framework matrix may evolve during the lifetime of the action depending on the different implementation modalities of this action.

The activities, the expected Outputs and related indicators, targets and baselines included in the logframe matrix may be updated during the implementation of the action, no amendment being required to the Financing Decision.

Results	Results chain (@): Main expected results (maximum 10)	Indicators (@): (at least one indicator per expected result)	Baselines (values and years)	Targets (values and years)	Sources of data	Assumptions
Impact	To contribute to a sustainable diversification of the Greenlandic economy	1 Share of GDP that is neither fisheries nor public services	1. TBD	1. TBD	1. Statistics Greenland, Political and Economic Report to Parliament	<i>Not applicable</i>
Outcome 1	1 Increase the use of renewable energy for clean fuels production	1.1 Percentage of renewables in public utility energy supply (provided by Nukissiorfiit)*	1.1. 70% by 2023	1.1. 90% by 2030	1.1. National Inventory Report	Investment for the expansion of hydropower is mobilized
		1.2. Greenhouse Gas (GHG) emissions avoided (tonnes CO ₂ eq) with EU support <i>(Aligned with GEF 2.7)</i>	1.2. 510,659 (2021)	1.2. TBD (2030)	1.2. The Global Carbon Project	
Outcome 2	2 Enhance the development of new raw material value chains	2.1. Number of Critical Raw Materials (CRM) extraction concessions	2.1. xx number of extraction concessions by end of 2025	2.1. xx number of extraction concessions by end of 2027	2.1. Ministry of Mineral Resources and Justice	Investor interest in CRM extraction forthcoming
Outcome 3	3 Expand the protection of biodiversity and the environment as well as promote climate action and gender equality	3.1 Number of visitors to the designated new national park areas 3.2. Extent to which proposed climate and environmental policies, strategies and plans (incl. energy policies/strategies) are based on a gender analysis of risk, need, demand, barriers, and supply (GAP III indicator)	3.1. xx number of <i>guided visits</i> in the national parks by 2024 3.2.	3.1. xx number of <i>guided visits</i> in the national parks by 2027	3.1. Visit Greenland online portal	Number of tourist arrivals will increase as predicted by Visit Greenland
Output 1 relating to Outcome 1	1.1 Increased capacity of the government of Greenland in renewable energy – based clean fuels industry	1.1.1. Status of sector Plan for Energy and Green Transition 1.1.2. Number of new appointments at energy department with improved	1.1.1. Old Sector plan 2018	1.1.1. New/updated sector plan 2025	1.1.1. Latest Energy and Water Sector Plan	Political consensus on renewable energy maintained

		skills in handling investment cases and attracting investors for Power-to-X, disaggregated by sex, age and disability status	1.1.2. 0 by 2023	1.1.2. 3 by 2025	1.1.2. Pre and post training assessment	
Output 2 relating to Outcome 1	1.2 Enhanced knowledge and data for development of renewable energy solutions and clean fuels production, particularly hydropower offtake industries	1.2.1. Status of Business case for third expansion of Buksefjordsværket, and for industry parks for PtX testing	1.2.1. Non-existent by 2023	1.2.1. Business case developed by 2026	1.2.1. Official copy of business case	Political consensus on renewable energy maintained Investor interest in PtX forthcoming
Output 3 relating to Outcome 1	1.3.1 Improved access to finance in the energy sector	1.3.1. Number of energy sector beneficiaries with access to financial services with EU support: (a) firms <i>(Aligned with GEF 2.7)</i>	1.3.1. TBD (2023)	1.3.1. TBD (2027)	1.3.1. Progress reports/updates	
Output 1 relating to Outcome 2	2.1 Improved geological knowledge and data access for mining sector stakeholders	2.1.1. Status of CRM geological and production database	2.1.1. Raw Materials geochemical database implemented by end of 2024	2.1.1. Raw Materials geochemical database full operation by end of 2025	2.1.1. Ministry of Mineral Resources and Justice	
Output 2 relating to Outcome 2	2.2 Improved capacities of Ministry of Mineral Resources and Justice staff in regulatory framework as well as licensing and environmental, social and governance standards in the mining sector	2.2.1. Number of new/improved regulatory framework reforms, licensing as well as environmental, social and governance standards developed for the mining sector	2.2.1. 0 (2023)	2.2.1. TBD (2027)	2.3.1. Copies of new/improved standards for the mining sector	
Output 3 relating to Outcome 2	2.3 Improved access to sustainable finance in the mining sector	2.3.1. Number of mining sector beneficiaries with access to financial services with EU support: (a) firms <i>(Aligned with GEF 2.7)</i>	2.3.1. TBD (2023)	2.3.1. TBD (2027)	2.3.1. Progress Reports/updates	
Output 1 relating to Outcome 3	3.1 Increased knowledge of national stakeholders on marine ecosystems	3.1.1 Number of ecosystem monitoring programmes established	3.1.1. 0 (2023)	3.1.1. 1 (2027)	3.1.1. Progress report	
Output 2 relating to Outcome 3	3.2 Strengthened capacities of the government of Greenland to protect of the environment and biodiversity	3.2.1 Status of the new national park	3.2.1 Non-existent by 2023	3.2.1 Established and Phase I completed by 2027	3.2.1 Biodiversity Department	Public hearings support the park establishments

Output 3 relating to Outcome 3	3.3. Strengthened capacity of the Arctic Hub to coordinate of research and scientific outreach	3.3.1 Number of scientific dialogues/outreach events/seminars /research missions facilitated or coordinated by the International Arctic Hub*	3.3.1. TBD by 2024	3.3.1. TBD by 2027	3.3.1. Event archive of Arctic Hub	
Output 4 relating to Outcome 3	3.4 Strengthened capacities of the government of Greenland to support development of sustainable tourism	3.4.1. Number of new initiatives successfully completed with the support of this Action to promote sustainable tourism	3.4.1. 0 (2023)	3.4.1. TBD (2027)	3.4.1. Progress Reports/updates	
Output 5 relating to Outcome 3	3.5 Improved actions of local stakeholders on gender balance in relevant employment fields	3.5.1. Estimated number of people reached by outreach campaigns financed by the EU	3.5.1. 0 (2023)	3.5.1. TBD (2027)	3.5.1. Campaign report	

BUDGET SUPPORT MODALITY as reflected by the national/sector public policy supported (4 levels of results / indicators / Baselines / Targets / Source of Data - no activities)

Caveat: the indicators used in the LFM refer to the budget support intervention logic. They help monitoring the implementation of the programme in view of its objectives and later evaluate its contribution to country policy's achievements. The list of indicators below should not be understood as the list of indicators informing the disbursement of variable tranches and spelled out in the relevant part of the financing agreement signed with the partner country, although some indicators may be used for both purposes and will be marked accordingly (in bold).

Results	Results chain	Indicators (max. 15)	Baselines (year)	Targets by the end of the budget support contract (year)	Sources of data (1 per indicator)
Indicative Impact of the policy	To contribute to a sustainable diversification of the Greenlandic economy	1. Share of GDP that is neither fisheries nor public services	1. TBD	TBD	Annual Political Economic Report (MoF) Same as above Same as above
Expected Outcomes of the policy	1 Use of renewable energy for different applications and Critical Raw Materials increased 2 Research coordination and biodiversity preservation supported	1.1 Percentage of renewables in public energy supply 2.1 Number of scientific dialogues/outreach events/seminars /research missions facilitated or coordinated by the Arctic Hub	1.1 70% in 2023 2.1 x events facilitated in 2023	1.1 90% by 2030 2.1 y events by 2027	1.1 Greenland's Energy and Water Sector Plan (2017) 2.1 Reports by the Arctic Hub

<p>Induced Outputs</p>	<p>1.1 An enabling environment for the production of clean fuels as an offtake use of hydropower</p> <p>2.1 Strengthened coordination of research and monitoring on biodiversity and climate change</p> <p>2.2 Increased protected areas in Greenland</p>	<p>1.1.1 Sector Plan for Energy and Green Transition updated, and a new climate strategy drafted</p> <p>1.2.1a1.1.2. Number of new appointments at energy department with improved skills in handling investment cases and attracting investors for Power-to-X, disaggregated by sex and age positions established and occupied to process hydropower tender for large scale industry disaggregated by sex, age and disability status</p> <p>1.1b1.3 Number of B2B, G2B and G2G matchmaking events for renewable energy applications</p> <p>2.1.1 Monitoring programme of benthic ecosystems established</p> <p>2.2.1. Establishment of a national park, phase 1, completed</p>	<p>1.1.1 Sector Plan for Energy and Green Transition (2017)</p> <p>1.2.1: 2023: 1 additional staff position filled by GoG in Energy Section, Dept. of Energy</p> <p>1.2.2 2023: Limited number of matchmaking events</p> <p>2.1.1 0 by 2024</p> <p>2.2.1 0 by 2023</p>	<p>1.1.1 2027: A new sector Plan for Energy and Green Transition and a new climate strategy adopted by GoG</p> <p>1.2.1. 2024 to 2028: 4 additional staff member positions filled in Energy Section attaining gender parity</p> <p>1.2.2 2029: 2 events per year</p> <p>2.1.1 1 by 2027</p> <p>2.2.1 1 by 2027</p>	<p>1.1.1 Government of Greenland</p> <p>1.2.1 Department of Energy</p> <p>1.2.2 Department of Energy</p> <p>2.1.1 Greenland Institute of Natural Resources</p> <p>2.2.1 Department of Biodiversity</p>
<p>Direct Outputs</p>	<p>3 Improved coordination of government action and EU-Greenland cooperation for Green Growth</p>	<p>3.1. Status of steering body with gender parity for coordination and active</p>	<p>3.1. Non-existent by 2023</p>	<p>3.1. Steering body established by 2023</p>	<p>3.1. Minutes of meetings</p>

4 IMPLEMENTATION ARRANGEMENTS

4.1 Financing Agreement

In order to implement this action, it is envisaged to conclude a financing agreement with the territory.

4.2 Indicative Implementation Period

The indicative operational implementation period of this action, during which the activities described in section 3 will be carried out and the corresponding contracts and agreements implemented, is 72 months from the date of entry into force of the financing agreement.

Extensions of the implementation period may be agreed by the Commission's responsible authorising officer by amending this Financing Decision and the relevant contracts and agreements.

4.3 Implementation of the Budget Support Component

4.3.1 Rationale for the Amounts Allocated to Budget Support

The amount allocated for the budget support component is EUR 15 000 000, and complementary support is EUR 7 500 000. This amount is based on the considerable financing needs to build the government of Greenland's own capacity in the policies supported by this action, positive experiences with the use of budget support in Greenland since 2007, and continuous progress in public finance management in the past years.

Greenland is not only characterised by the modest size of the population but has also the lowest population density in the world, implying long and costly transport distances, and a strongly specialised production structure. These economies are typically disadvantaged by diseconomies of small scale in their public service delivery, which tends in the direction of a larger public sector and larger unit cost. Accordingly, the budget support will result in targeted financial assistance to Greenland's sustainable economic development by both providing a financial basis for the GoG to focus on priority areas than would otherwise be the case.

Finally, another aim of the budget support is to strengthen ties and enhance cooperation between the EU and Greenland. Energy, critical raw materials, combatting climate change and biodiversity loss is by all actors and duty bearers across the political spectrum considered as the primary enabler of better welfare and more prosperity by creating jobs, boosting competitiveness and diversifying the economy.

The main inputs for implementing the budget support package are policy dialogue, financial transfer, performance assessment, and capacity development.

Policy dialogue

The present action will build on the experiences gained with past and ongoing education budget support programmes of the EU in Greenland since 2007. The Government of Greenland and the Commission has regularly and since 2007 engaged in policy dialogue via two annual meetings, normally in February/March and another in August. The Government of Denmark is invited to attend these meetings. During the dialogue meetings recent developments in specific cooperation areas are presented by the Government of Greenland, including the Education Sector Policy and its implementation, as well updates on the Greenland's macro-economic situation and reform of the public finance management system. A common understanding, recorded in an Aide Memoire, is reached through these dialogue meetings on the Government reform priorities, progress achieved as well as actions required for continued eligibility of EU budget support. Since 2017, the municipalities have been invited to take part in the bi-annual policy dialogue meeting between the Commission and the GoG which is indicative of the key role played by the municipalities, cf. also section 3.4 Risks and Lessons Learnt above.

Commitment of GoG to improve its tax policy and tax administration in mobilising revenue.

The last PEFA assessment 2021/2022 confirmed the previous PEFA assessment from 2014 that the Greenland PFM system is functioning to good quality standards. Overall, comparison of current performance with the

PFM system performance assessed in 2014 shows that 10 indicators have improved, 5 declined, and 13 stayed the same signifying commendable performance.

Added value and contribution of budget support

The budget support will reinforce the internal capacity of the Greenlandic administration and allow the government to undertake necessary measures under their own ownership and direction to achieve the policy goals in the priority areas addressed in this action.

There is a positive track record in implementing Budget Support in Greenland, over the past years around 95% of the planned disbursements were executed. As outlined in section 2.3.4 on Public Finance Management above, the budget support has assisted improving the national PFM system.

The following disbursement calendar and profile proposed for the action is indicative. The actual disbursement calendar and profile will be set out in the financing agreement and may remain subject to change.

Second semester of 2024: Fixed tranche

Second semester of 2025: Fixed and variable tranche

Second semester of 2026: Fixed and variable tranche

Second semester of 2027: Fixed and variable tranche

4.3.2 Criteria for Disbursement of Budget Support

a) Conditions.

The general conditions for disbursement of all tranches are as follows:

- Satisfactory progress in the implementation of the upcoming Sustainability and Growth Plan II; the biodiversity strategy, the energy and water sector plan, the mineral strategy and the research strategy, and continued credibility and relevance thereof or of the subsequent policies.
- Maintenance of a credible and relevant stability-oriented macroeconomic policy or progress made towards restoring key balances.
- Satisfactory progress in the implementation of reforms to improve public financial management, including domestic revenue mobilisation, and continued relevance and credibility of the reform programme.
- Satisfactory progress with regard to the public availability of accessible, timely, comprehensive, and sound budgetary information.

b) The performance indicators for disbursement to be used for variable tranches may focus on the following policy priorities:

- Increased capacity of the government of Greenland for the creation of a renewable energy – based clean fuels industry;
- Improved knowledge and data for development of off-grid renewable energy solutions, and clean fuels production;
- Improved access to finance in the energy sector;
- Increased knowledge of ecosystems;
- Extended protection of the environment and biodiversity as well as climate action;
- Improved coordination of research and scientific outreach.

c) Modifications.

The chosen performance indicators and targets to be used for the disbursement of variable tranches will apply for the duration of the action. However, in duly justified cases, the partner country and the Commission may agree on changes to indicators or on upward/downward revisions of targets. Such changes shall be authorised in writing ex-ante, at the latest at the beginning of the period under review applicable to the indicators and targets.

In exceptional and/or duly justified cases, for instance where unexpected events, external shocks or changing circumstances have made the indicator or the target irrelevant and could not be anticipated, a variable tranche indicator may be waived. In these cases, the related amount could either be reallocated to the other indicators of the variable tranche the same year or be transferred to the next variable tranche the following year (in accordance with the original weighting of the indicators). It could also be decided to re-assess an indicator

the following year against the original target, if there was a positive trend and the authorities did not reach the target because of factors beyond their control. The use of this provision shall be requested by the partner country and approved in writing by the Commission.

d) Fundamental values

In case of a significant deterioration of fundamental values, budget support disbursements may be suspended, reduced or cancelled, in accordance with the relevant provisions of the financing agreement.

4.3.3 Budget Support Details

Budget support is provided as direct untargeted budget support to the national treasury. The crediting of the Euro transfers disbursed into Danish kroner will be undertaken at the appropriate exchange rates in line with the relevant provisions of the financing agreement.

Budget support will be provided through a mix of variable and fixed tranches. The share of variable tranches will be 20%.

4.4 Implementation Modalities

A key bottleneck pursuing policy goals and for attracting investment in Green Growth sectors is government capacity. Therefore, this action will make use of sector performance budget support to Greenland's energy, biodiversity and research policy so as to be in a stronger position to reinforce the expertise of the administration sustainably. Budget support has been successfully used in Greenland since 2007; stability-oriented macroeconomic policy has remained in place and the public finance management system is performing well and continuously improving. Additional capacity through technical assistance as well as the increased fiscal space through budget support will bring the government of Greenland in the position to finance measures such as data collection and analysis, feasibility and impact studies (including environmental, particularly with regards to major investments in mining, hydropower, hydrogen), bid evaluation, formulation of a new tax regime, in order to attract and facilitate investment in the renewable energy sector, hydrogen value chains and improve biodiversity protection as well as research and knowledge dissemination.

To support development of sustainable critical raw material value chains as well as additional support in the energy sector, a specialised entrusted entity will provide technical assistance, as well as support to investment, improved data availability, and studies. The considerable needs for investment in energy- and mining-related projects calls for supporting through this action also potential mobilisation of InvestEU and close cooperation notably with the European Investment Bank.

The Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures.

4.4.1 Indirect Management with an entrusted entity

Specific objectives 1.2, 1.3, 2.1, 2.2 and 2.3 may be implemented in indirect management with an entity, which will be selected by the Commission's services using the following criteria:

- Proven competence in support to the development of critical raw material and power to x value chains
- Pillar-assessed or consortium linked to European Commission agencies or EU institutions
- Demonstrated capacity to carry out or manage the sub-contracting of the activities listed below

The implementation by this entity entails the following indicative activities:

- Geological, geochemical and geophysical surveys, mineral mapping and data analysis
- Digitalisation of geological data, creation of a database on geological data to facilitate investment
- Capacity building of department of mineral resources staff on licensing and standards
- Capacity building in the sector of energy
- Provision of expertise on power to x value chains and design of power to x pilot projects as well as studies and data collection
- Support to joining the Extractive Industries Transparency Initiative

- Business forums and matchmaking for sector stakeholders (CRM and energy)
Support to the development of investment projects, e.g., through the European Raw Materials Alliance

If negotiations with the above-mentioned entity fail, that part of this action may be implemented in direct management in accordance with the implementation modalities identified in section 4.4.2

4.4.2 Changes from indirect to direct management mode due to exceptional circumstances

In the case that it is not possible to carry out one or several of the indicative activities as listed under 4.4.1 with entrusted entities in indirect management, they may be carried out in direct management using procurement and grants (with legal entities, public bodies and economic operators with specialised expertise and knowledge relative to the outputs and activities of Specific Objective 1 and 2) for the value of parts or the full amount foreseen for indirect management. Grants could for instance be provided to geological survey organisations to support quality of and access to geological data. Procurement could be used to provide technical assistance such as the provision of expertise and studies on power to x, capacity building in energy and mineral resources, and support to investment.

4.5. Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of services in the markets of the countries or territories concerned, or in other duly substantiated cases where application of the eligibility rules would make the realisation of this action impossible or exceedingly difficult (Article 28(10) NDICI-Global Europe Regulation and Article 28(8), applicable also to the OCTs by virtue of OAD-Article 79).

4.6. Indicative Budget

Indicative Budget components	EU contribution (amount in EUR)
Budget support - cf. section 4.3	15 000 000
Implementation modalities - cf. section 4.4	
Specific Objective 2 and Output 1.2 composed of	
Indirect management with an entrusted entity– cf. sections 4.4.1	7 500 000
Totals	22 500 000

4.7 Organisational Set-up and Responsibilities

A steering committee for Green Growth involving concerned Greenlandic ministries, the European Commission, a representative for the Danish administration and other duty bearers may be set up to oversee the implementation of the action, to improve coordination, to exchange on arising challenges and ensure close monitoring and coherence. Those are to be defined in the financing agreement but could include international financing institutions to improve access to finance (such as the EIB and NIB) as well as, on an ad-hoc basis and for consultations, the private sector and civil society organisations, including those representing women in all their diversity and persons with disabilities). The composition of the steering committee shall strive for equal representation of women and men in the committee.

Since 2006 the Government of Greenland and the Commission have been regularly engaged in policy dialogue via bi-annual meetings. During these dialogue meetings recent developments in specific cooperation areas are presented by the Government of Greenland as well as bi-lateral discussions are facilitated based on the Government updates on performance of the sectors supported, Greenland's macro-economic situation and reform of the public finance management system. An Aide Memoire is reached through these dialogue meetings on the Government reform priorities and progress achieved as well as actions required for meeting the conditions for the disbursement of EU budget support. Also, the Government of Denmark is invited to attend these meetings. The policy dialogue arrangements are embedded in the domestic setup and process, avoiding ad hoc structures and rather strengthening existing ones. Continuous exchanges and consultations will in addition be reinforced by the upcoming Commission office in Nuuk.

As part of its prerogative of budget implementation and to safeguard the financial interests of the Union, the Commission may participate in the above governance structures set up for governing the implementation of the action and may sign or enter into joint declarations or statements, for the purpose of enhancing the visibility of the EU and its contribution to this action and ensuring effective coordination.

5 PERFORMANCE MEASUREMENT

5.1 Monitoring and Reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process, and part of the implementing partner's responsibilities. To this aim, the implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (Outputs and direct Outcomes) as measured by corresponding indicators, using as reference the logframe matrix (for project modality) and the partner's strategy, policy or reform action plan list (for budget support).

The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

Roles and responsibilities for data collection, analysis and monitoring:

The statistical and monitoring systems as well as the quality of official data in the policy field covered have been assessed. Monitoring and reporting will assess gender equality results and the implementation of the human rights-based approach working principles (applying all human rights for all; meaningful and inclusive participation and access to decision-making; non-discrimination and equality; accountability and rule of law for all; and transparency and access to information supported by disaggregated data). Monitoring and reporting will be based on indicators that are disaggregated by sex, age and disability when applicable. In order to monitor development and equal access, data/indicators will be disaggregated even further when applicable.

5.2 Evaluation

Having regard to the nature of the action an ex-post evaluation may be carried out for this action or its components via independent consultants contracted by the Commission.

It will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the new and innovative nature of the action and possible continuations of the sectors involved in Green Growth in the framework of future EU-Greenland cooperation.

In case an evaluation is not planned, the Commission may, during implementation, decide to undertake such an evaluation for duly justified reasons either on its own decision or on the initiative of the partner.

The Commission shall inform the implementing partner at least three months in advance of the dates envisaged for the evaluation missions. The implementing partner shall collaborate efficiently and effectively

with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities. All evaluations shall assess to what extent the action is considering the human rights-based and disability mainstreaming approach as well as how it contributes to gender equality and women's empowerment. Expertise on human rights and gender equality will be ensured in the evaluation teams.

The evaluation reports may be shared with the partners and other key stakeholders following the best practice of evaluation dissemination. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, apply the necessary adjustments.

Evaluation services may be contracted under a framework contract.

5.3 Audit and Verifications

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audit or verification assignments for one or several contracts or agreements.

6 STRATEGIC COMMUNICATION AND PUBLIC DIPLOMACY

The 2021-2027 programming cycle will adopt a new approach to pooling, programming and deploying strategic communication and public diplomacy resources.

In line with the 2022 “Communicating and Raising EU Visibility: Guidance for External Actions”, it will remain a contractual obligation for all entities implementing EU-funded external actions to inform the relevant audiences of the Union's support for their work by displaying the EU emblem and a short funding statement as appropriate on all communication materials related to the actions concerned. This obligation will continue to apply equally, regardless of whether the actions concerned are implemented by the Commission, partner countries, service providers, grant beneficiaries or entrusted or delegated entities such as UN agencies, international financial institutions and agencies of EU Member States.

However, action documents for specific sector programmes are in principle no longer required to include a provision for communication and visibility actions promoting the programmes concerned. These resources will instead be consolidated in Cooperation Facilities established by support measure action documents, allowing Delegations to plan and execute multiannual strategic communication and public diplomacy actions with sufficient critical mass to be effective on a national scale.

Appendix 1 REPORTING IN OPSYS

A Primary Intervention (project/programme) is a coherent set of activities and results structured in a logical framework aiming at delivering development change or progress. Identifying the level of the primary intervention will allow for:

Articulating Actions or Contracts according to an expected chain of results and therefore allowing them to ensure efficient monitoring and reporting of performance;

Differentiating these Actions or Contracts from those that do not produce direct reportable development results, defined as support entities (i.e., audits, evaluations);

Having a complete and exhaustive mapping of all results-bearing Actions and Contracts.

Primary Interventions are identified during the design of each action by the responsible service (Delegation or Headquarters operational Unit).

The level of the Primary Intervention chosen can be modified (directly in OPSYS) and the modification does not constitute an amendment of the action document.

The intervention level for the present Action identifies as (tick one of the 4 following options);

Action level (i.e., Budget Support, blending)		
<input checked="" type="checkbox"/>	Single action	Present action: all contracts in the present action
Group of actions level (i.e., top-up cases, different phases of a single programme)		
<input type="checkbox"/>	Group of actions	Actions reference (CRIS#/OPSY#):
Contract level		
<input type="checkbox"/>	Single Contract 1	
<input type="checkbox"/>	Single Contract 2	
	(...)	
Group of contracts level (i.e., series of programme estimates, cases in which an Action includes for example four contracts and two of them, a technical assistance contract and a contribution agreement, aim at the same objectives and complement each other)		
<input type="checkbox"/>	Group of contracts 1	