Ministry of Foreign Affairs – Department for Green Diplomacy and Climate, KLIMA

Meeting in the Council for Development Policy on 12 September 2024
Agenda Item No. 5

1. Overall purpose:	*For discussion and recommendation to the Minister*
2. Title:	Danish Support to the Climate Technology Network and Centre (CTCN) 2024-2027
3. Presentation for Programme Committee:	21 May 2024
4. Previous Danish support presented to UPR:	No

Danish support to the Climate Technology Centre & Network (CTCN) 2024-2027

Key results:
The Danish support to CTCN's third Programme of Work (PoW) will contribute to:

- Support at least 50 developing countries to accelerate climate technology transfer, innovation and uptake to build climate resilience and mitigate emissions.
- 20 -25 developing countries have identified and prioritized climate technology needs to enhance innovation policy frameworks, regulation and planning aligned with National Determined Contributions (NDC) and Adaptation Plans.
- CTCN technical assistances have supported at least 100 country-driven proposals to design and implement climate adaptation and mitigation projects, incl. applying gender sensitive approaches and engaging vulnerable groups.
- Global network and training at national, regional, and global level have strengthened learnings across public, private and civil societies on relevant climate technologies.

Justification for support:

- Access to climate-related technology is a key enabler for developing countries to strengthen climate adaptation and mitigation, incl. achieving SDG 7 and SDG 13.
- The CTCN work programme aligns closely with Danish priorities and strategies, including the strategy for development cooperation and how-to-notes.
- Strong mobilization of multiple stakeholders and beneficiaries to allow more technology transfer based on country needs and demand.

Major risks and challenges:

- Risk of limited national ability to scale-up CTCN technical assistance. This is mitigated through collaboration with climate funds such as GEF, Adaptation Fund and GCF.
- Limited capacity and resources of recipient countries (NDE's) can reduce ability to up-take recommendations. This is mitigated by setting up national Steering Committees and ensure close alignment with NDC's and/or NAP's in the selection process.

File No.	24/23319					
Country	Interregional					
Responsible Unit	KLIMA					
Sector	Climate					
Partner	CTCN ((UNEP host organisation)					
DKK million	**2024**	**2025**	**2026**	**2027**		**Total**
Commitment	30					30
Projected disbursement	0	15	15	0		30
Duration	2024-2027					
Previous grants	Yes, DKK 69 mill. since 2013 (3 grants)					
Finance Act code	06.34.01.40					
Head of unit	Anne Hougaard Jensen					
Desk officer	Morten Blomqvist					
Reviewed by CFO	Jacob Strange-Thomsen					

Relevant SDGs

Strategic objective

Environmentally sound technologies are developed, transferred, and deployed for low-carbon and climate resilient development at the request of developing countries to support implementation of National Determined Contributions, National Adaptation Plans and Sustainable Development Goals, incl. securing gender balance and socio-economic benefits for poor and vulnerable groups.

Environment and climate targeting - Principal objective (100%); Significant objective (50%)

	Climate adaptation	Climate mitigation	Biodiversity	Other green/environment
Indicate 0, 50% or 100%	100%	100%		100%
Total green budget (DKK)				**30 DKK million**

Justification for choice of partner:

CTCN is the operational arm of the UNFCCC Technology Mechanism. Its mandate and track-record as a catalyst and convener of climate technology transfer aligns with the Danish priorities of raising ambitions to meet the Paris Agreement and an inclusive sustainable development through private sector engagement, civil society participation, gender equality and technology cooperation across countries.

Summary:

The Danish support to CTCN will promote technology transfer at the request of developing countries as they seek to meet their Nationally Determined Contribution (NDC) targets and Paris Agreement commitment. The Danish contribution will support CTCN to be responsive to demand-driven climate-related technology needs from developing countries while introducing a more programmatic approach to technology innovation. Key priorities for the Danish support will be to ensure that African countries and fragile states can gain access to relevant climate technology, and to strengthen CTCN's work on gender, poverty orientation and climate adaptation in tech innovation.

Budget (engagement as defined in FMI**):**

Engagement 1: Five outcome-areas	25,488,966
Engagement 2 : CTCN operational management	2,548,417
Engagement 3: Programme Support Cost (7%)	1,962,617
Total	**30 DKK million**

Danish support to the

Climate and Technology Centre and Network (CTCN) 2024-2027

26th August, 2024.

360 no. 24/23319

Content

Abbreviations and acronyms

AB	Advisory Board
AI	Artificial Intelligence
COP	UNFCCC Conference of the Parties
CTCN	Technology Centre and Network
EV	Electrical Vehicle
FTA	Fast Technical Assistance
GCF	Green Climate Fund
GEF	Global Environment Fund
GHG	Green House Gas
GGGI	Global Green Growth Institute
ILO	International Labour Organisation
LDC	Least Developed Countries
MDB	Multilateral Development Bank
NDC	National Determined Contributions
NDE	National Designated Entities
PoW	Programme of Work (2023-2027)
SDG	Sustainable Development Goals
SIDS	Small Island Development States
TA	Technical Assistance
TEC	Technical Executive Committee
ToC	Theory of Change
TNA	Technical Needs Assessments
UNEP	UN Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WGC	Women and Gender Constituency

1. Introduction

The present project document outlines the background, rationale and justification, objectives and management arrangements for the development cooperation concerning the Danish support to the Climate Technology Centre and Network (CTCN) as agreed between the parties: The CTCN and the Green Diplomacy and Climate office in the Ministry of Foreign Affairs of Denmark. The project document is an annex to the bilateral agreement with the implementing partner and constitutes an integral part hereof together with the documentation specified below. The Danish support amounts a total of DKK 30,0 million for the period 2024-2027.

The CTCN is the implementation arm of the Technology Mechanism of the United Nations Framework Convention on Climate Change (UNFCCC). It promotes technology transfer and innovation at the request of developing countries as they seek to meet their Nationally Determined Contributions (NDC) targets and Paris Agreement commitments. CTCN headquartered in the UN City Copenhagen and is hosted by the UN Environment Programme (UNEP). Denmark has a longstanding commitment to support the CTCN since its establishment in 2014 and pro-actively made diplomatic outreach to host the Centre in Copenhagen when it was established. Denmark has previously supported CTCN with DKK 30,0 million in 2013, DKK 11,0 million in 2016 and DKK 28,0 million in 2020.

The CTCN has since its inception in 2014 served over 113 developing countries, providing access to over 467 targeted mitigation and adaptation technologies. Almost 50% of the support has been targeted Africa. In 2023, the CTCN introduced a more programmatic approach while still maintaining its demand-driven responsiveness to request from developing countries. The CTCN has in 2023 introduced a more programmatic approach focusing on five system transformation areas: (i) water-energy-food nexus, (ii) buildings and infrastructure, (iii) sustainable mobility, (iv) energy systems, and (v) business and industry. Furthermore, it is well coordinated with other UNFCCC agencies such as the Green Climate Fund (GCF), Adaptation Fund and Global Environment Fund (GEF). The Danish contribution will not be earmarked but Denmark has identified clear priorities which it will monitor and promote through the bi-annual advisory board meetings and in collaboration with other donors. The preparation of the present project document has been elaborated in constructive dialogue with the CTCN secretariat.

CTCN is considered a very relevant organization to support with its clear UNFCCC mandate and position in the international climate landscape with well-defined niche to respond to developing countries' need for climate technology. The organization is demand-driven and the advisory board has 30 members representing donors, beneficiary countries, youth, women, indigenous peoples' and private sector representatives. It is responsive to meet developing countries request for climate change-related technology equipment, methods, capacity development and policy advisory. Many of these technologies and responses to climate change impacts are also critical for lifting people out of poverty and deliver on several of the SDG's.

2. Context, justification and strategic considerations

2.1. Context and rationale

Climate change is impacting all societies today. The consequences range from deadly heat waves to droughts, wildfires, storms and floods. At the same time, global carbon emissions are record high and we are off-track to meet the Paris Agreement. The World Bank estimates that climate change could push more than 100 million people back into extreme poverty by 2030 and climate change impacts are likely to undermine progress to achieve the Sustainable Development Goals (SDGs).

New and existing technologies[1] will be key to achieve the goals of the Paris Agreement and the SDG's. Technology is considered vital for building climate-resilient societies and enable a transitioning to low-carbon economies and achieving most of the SDG's. Majority of developing countries' Nationally Determined Contributions (NDC's) include needs for technological support and capacity development in order to implement and achieve their indicated commitments. Many of the necessary technologies exist already. The real challenge is to get them where they are needed, adapt them to the context of developing countries and develop national institutional capacities to scale up relevant technology deployment. CTCN is an important entry point for many developing countries to access support for specific technology development and innovation needs. The strategic CTCN support can be a catalytic enabler for progressing on national strategies, regulations and standards within a given area which can lead to more transformative change by adopting or leapfrogging to new technologies.

There is a strong link between sustainable development, climate vulnerability and transfer of technology. Limited economic, social and institutional resources lead to low adaptive capacity of new technologies that otherwise could mitigate emissions and build climate resilience. Technology is not a quick fix but needs to be embedded into the regulatory and socio-economic context of the host country. However, without transfer of technology developing countries are likely to be left without adequate means to adapt to climate change and to be locked into a fossil-fuel based economy. Furthermore, majority of green technologies also present opportunities to contribute to poverty alleviation and progress towards achieving the SDG's. For example, off-grid energy contributes to electrifying health clinics, establish cool chain for food value chains, solar-powered water pumps for irrigation or allow communities to access real-time weather information to forecast weather extremes.

The next generation National Determined Contributions (NDC's), many of them covering both mitigation and adaptation, needs to be submitted early 2025 ahead of COP30 in Brazil. It is very likely that technology transfer will be an even higher priority in the next generation NDC's. Therefore, it will be relevant to stimulate further uptake of climate technologies in support of NDC implementation. Recent IPCC and UNFCCC reports and COP28 outcome document all emphasize that rapid and scaled-up deployment and adoption of clean technologies, as well as access to new emerging technologies, will be critical to stay on track on limiting global warming to 1.5°C.

[1] Technologies is defined by UNFCCC as climate technologies that reduce GHG emission which include renewable energies such as wind, solar and hydro power. It also technologies that allows to adapt to the adverse effects of climate change where technologies can be drought-resistant crops, early warning systems and sea wall. It can also be more 'soft' technologies such as energy-efficient practices and training of equipment.

However, up-take of climate technology will often require the adequate enabling frameworks and support from international sources of concessional finance. In some countries, and for some technologies, vested political interest might work against the up-take of new climate-relevant technologies. Furthermore, many developing countries financial, governance or institutional barriers makes even basic technologies out of reach, e.g., stoves for clean cooking or solar-powered water pumps.

Technology is not gender neutral. In fact, technological solutions are often developed and produced by men and targeting men. Therefore, both women and men need to be engaged in the development and use of technologies, including in the decision-making process and ability to access technology. This is particular important as women commonly face higher risks and greater burdens of climate change. Thus, bringing in women's perspectives, needs and innovations will be pivotal for a just energy transition. Furthermore, it is also relevant to consider how adopting indigenous knowledge and traditional practices can complement new technological solutions. Thus, engagement of indigenous peoples and considering local community knowledge are vital to design the up-take of new climate relevant technology. CTCN has a strong gender dimension in its general work with clear policies, guidelines, and earmarked budgets in all its activities, but there is still a need for mainstreaming gender across all country-specific Technical Assistances (TA).

In 2020, out of the 20 countries most vulnerable and least prepared to adapt to climate change, 12 were in conflict. Growing evidence suggests that climate change and environmental degradation act as catalysts, drivers, and multipliers of instability, large-scale displacement and exacerbate already volatile food prices. It will be important to develop innovative conflict-sensitive and cost-effective climate technologies solutions that can assist conflict-prone countries to prepare for climate change and take advantage of new low-carbon technologies. Furthermore, technical assistance and technology assessment can support countries in accessing greater development and climate financing.

Digitalisation and artificial intelligence (AI) are becoming a game-changer in adapting to climate change, but there is a digital divide between developing countries and more advanced economies. Yet, new technologies have already demonstrated the impact of digitalization, e.g., when mobile phones were introduced and Kenya spearheaded the introduction of mobile pay. Emerging digital technologies, such as blockchain, Artificial Intelligence (AI) or open data platforms have the potential to unlock and accelerate global climate actions, e.g., by transforming energy systems into smart grids, introducing multi-hazard early warning systems, and by improving accuracy and access to weather forecasts for crop management. Digital technology transfer will be an important tool for development and adapting to climate change.

2.2. Rationale and justification for Danish support

Justification

As a global leader in green technology development and strong engagement in the global climate diplomacy, Denmark has a key role and responsibility to support developing countries accessing relevant climate technologies. Therefore, it is highly relevant to support and host the CTCN as the implementation arm of UNFCCC. The CTCN mandate is to promote accelerated, diversified and scaled-up transfer of environmentally sound technologies for climate change mitigation and adaptation, in developing countries, in line with their sustainable development priorities. Denmark made pro-active efforts to become the host of the CTCN secretariat when it was established, and it is today located in the UN City, Copenhagen. The

mandate and Programme of Work (PoW) of the CTCN is still in line with recent Danish priorities for development assistance where technology can be a key driver of climate action but also to achieve the sustainable development goals (SDG's).

The Danish support to CTCN will particularly support progress on SDG7 Clean Energy and SDG13 Climate Action as well as the goals under the Paris Agreement. It is in line with the Government's priorities for Danish development Cooperation 2024, which has set out the target of 30% of Danish development assistance is to be allocated for climate efforts, where approx. 60% should be targeted climate adaptation. This will also support the effort to meet the ambition of the Paris Agreement and deliver on the Global Stocktake outcome document from COP28. Furthermore, the five transformative areas of CTCN are aligned to several other SDG's including SDG5, SDG6, SDG9 and SDG11.

The mandate and vision of CTCN is well aligned with key priorities in the Danish Strategy for Development Cooperation 'The World We Share'. For example, the vision statement in the Danish Strategy emphasizes the need to "*strengthen resilience to climate change, with focus on poor and vulnerable countries and people. We will reduce global CO2 emissions and promote a socially just green transition. And we will ensure that increased climate ambition in developing countries and fulfilment of the Paris Agreement deliver sustainable development and growth for the world's poor*." A green transition and adapting to a changing climate will require new technology and CTCN can contribute to not leaving the poorest and most vulnerable countries behind in accessing relevant climate technologies.

The Ministry of Foreign Affairs' (MFA) how-to-note on climate adaptation highlights the use of new technology and digitalization as important for climate action, such as for climate smart-food production. Further, it emphasizes that particular poor and fragile countries in Africa tend to face technological barriers in carrying out successful climate adaptation. The how-to-note on energy transition also highlights that many developing countries might continue using fossil fuel technologies if access to cleaner technologies for cooking and productive uses of energy are not accessible. Finally, the project document has also been informed by valuable comments provided by both the Programme Committee and the Appraisal Team, which has been reflected in the project document.

Rationale

Many developing countries indicate a strong need for technology transfer in their Nationally Determined Contributions (NDC's) which is needs to be re-submitted by COP30 in 2025. The Danish support to CTCN will allow to respond to more demand-driven requests from developing countries to meet a specific need for climate change-related technology assessments, capacity development and policy advice defined in the NDC's and National Adaptation Plans (NAP). CTCN is thereby also a relevant stakeholder for the NDC partnership where Denmark is co-chairing for the period of 2024-2025.

Despite the relatively small size and lean institutional set-up, CTCN has a well-defined UN mandate which it has turned into serving as a catalyst for climate innovation and technology advancement that creates new pathways for national climate strategies and opening opportunities for scaling up and leveraging climate finance. Upon the request of designated national focal points – often NDE's – CTCN technical assistance frequently serves as an early-stage technical support that may be too small for MDBs and larger climate funds.

CTCN has during the past ten years strengthened its cooperation and coalition building with many multilateral institutions such as TEC, UNEP, GCF, GEF, GGGI and Adaptation Fund. CTCN has formalized collaboration with the GCF, GEF and Adaptation Fund Climate Innovation Accelerator. It has also close collaboration with UNEP Copenhagen Climate Centre (UNEP CCC) in relation to development and use of the Technology Needs Assessments (TNA) and other areas of work. Collaboration with MDB's exist as well, but with room for further strengthening to ensure further up-take of TA and leverage further capital for implementation. The collaborative approach has proven to be important to scale, coordinate and secure longer term transformative changes from the CTCN technical assistances. The global network of CTCN is also important and brings together more than 800 stakeholders where eight Danish companies also are members, including Ramboll, NIRAS, DHI and Novonesis. The latter is currently is representing the Business and Industry in the CTCN Advisory Board.

In this context, the Danish support to CTCN fits well into the global "climate action landscape" as it provides early-stage technical support to access funding with other global climate funds also supported by Denmark. CTCN technical assistances can in particular be of importance for fragile states and the poorest countries who has the least capabilities to apply for the larger climate funds.

Justification of programme design based on the six OECD DAC evaluation criteria:

- ***Relevance:*** The selected programme is fully aligned with the Danish strategy for development cooperation and is providing a core contribution to achieve progress on SDG 7 and SDG 13 by providing better access to technologies to adapt to climate change and promote low-carbon development pathways.
- **Coherence:** The external coherence is clear as CTCN has an UN-based mandate and is an implementing arm of the UNFCCC. CTCN also brings together a number of multilateral, civil society and private sector stakeholders. Several supported by Denmark and aims to build on national entities and collaboration with international agencies and multilateral organisations.
- ***Impact:*** CTCN assistance is estimated to reduce 12,230,000 tonnes of CO2 eq. per year based on full implementation of proposed technological solutions. Leveraged its original funding of approx. 100 million USD to more than 1.5 billion USD in anticipated funding for developing countries to implement climate technology. More than 90 million people have benefited from the outcomes of technical assistance that the CTCN is providing in 113 developing countries upon their request. Strong interconnection and co-benefits between climate action, poverty alleviation and achieving the SDG's. However, more focus should be placed on actual implementation rather than on potential impact.
- ***Effectiveness:*** The CTCN serves as a trusted broker to developing countries by mobilizing a global network of technology, finance, policy, private sector and capacity development experts (including multilateral organizations such as the GCF, GEF, Adaptation Fund, MDB's and the NDC Partnership). It is the only party with formal responsibility of transferring knowledge under the UNFCCC. Close collaboration with subsidiary bodies under the UNFCCC, the countries' NDE's and other donor and multilateral agencies.
- ***Efficiency:*** The CTCN, operated by a small Secretariat based in Copenhagen, utilizes multilateral partnerships and a global network of technology expert institutions to efficiently respond to a broad range of climate technology needs across more than 100 countries. The CTCN provides assistance of up to 250.000 USD and on average each technical assistance intervention was valued at 215.000 USD in 2023. The more than 800 CTCN members serve as trusted and validated implementing agencies.
- ***Sustainability:*** The CTCN, as the implementation arm of the Technology Mechanism, is a core component of the UN Framework Convention on Climate Change. It has 16 bilateral donors and 6 multilateral donors. All its projects are implemented through NDE's and since 2024 it is mandatory for each granted TA to have a Steering

Committee across relevant public authorities and is now an integral part of Terms of References for each TA. Furthermore, each TA has to conduct a post-implementation impact assessment to track the progress and receive updates on the implementation of recommendations after the end of CTCN support to monitor long-term impact, inform on the long-term impact, and to potentially provide follow-on support was adopted at the last AB. CTCN has managed to leveraging approximately USD 1.24 billion dollars from MDB's, climate funds and other donors from a total of USD 95 million raised in the CTCN Trust Fund.

2.3. Target groups, cross-cutting topics and Danish priorities

CTCN builds on a demand-driven approach responsive to developing countries' needs submitted through their NDEs or another designated focal point. A broad global network of more than 800 different members have been established and is steadily growing. CTCN has made it mandatory to set up a project steering committee with relevant institutions and stakeholders to ensure strong ownership to the technical assistance. Many of the technical assistances have direct benefits to poor and low-income households and communities. Gender, youth, indigenous people and the private sector have specific CTCN focus in trainings, stakeholder consultation and have a dedicated seat in the advisory board.

CTCN also has a dedicated focus on fragile and conflict affected countries and the EU has earmarked funding to develop innovative conflict-sensitive and field-focused climate technology solutions to 10 conflict-prone countries. Since the start of CTCN technical assistance in 2014, approx. 50 % of the CTCN TA has been targeted towards Africa (followed by Asia Pacific 29 % and LAC by 21%) with an additional focus on LDCs and SIDs. This also aligns with Danish priorities.

CTCN case stories:

Burundi is one of the 20 countries in the world most vulnerable and least prepared for climate change. Particular high risk of flooding and droughts. However, the country does not have the capacity or means to invest in infrastructure improvements for flood prevention. Based on request for support, CTCN identified a low-cost, reusable and mobile flood preventing technology. The so-called "slamdam" technology is an easily deployable technology that consist of a water-filled flood barrier that can be used to prevent damage from flooding and to store water to ensure water availability in times of drought. A pilot was implemented with positive response from local communities and the Government decided to scale the approach up through an application to the Adaptation Fund. Target group benefitting from pilot was approx. 25.000 people. The next phase will target the four most flood and drought prone provinces in Burundi with a total population of approx. 2.1 million people.

Papua New Guinea's Climate Change and Development Authority requested CTCN technical assistance to develop a national policy to deploy and scale up e-mobility and support sustainable infrastructure in 2021. The purpose is to find more sustainable transport solution as vehicles is estimated to increase from 155,000 to over 600,000 by 2030, including public transportation. CTCN delivered a draft a National Electric vehicle (EV) Policy, a feasibility study on selected interventions, and a Green Climate Fund (GCF) concept note. The policy is under national consultation and the process is now supported by Global Green Growth Institute. Today, the Department of Transport implements two large-scale projects: one to create a Sustainable Urban Mobility Plan funded by the Asian Development Bank (ADB), and another one to introduce e-buses, in partnership with a Swiss e-mobility company.

Cameroon reached out CTCN to develop innovative low-carbon solutions for the entire dairy value-chain in North Cameroon aligned with Cameroon's NDC and its National Adaptation Plan of 2021. Working with the municipalities

of Petté and Wina (70,00 inhabitants) and the communities (including women's constituencies) engaged in farming and dairy production, CTCN identified the appropriate type of technology for dairy processing and piloted the creation of a solar-powered dairy processing facility and equipment. For the engaged dairy farmers in Petté, the increase in the production and consumption of dairy products, and the reduction of food waste, has led to increased income for the families. The project has potential to be further scaled up in Northern Cameroon.

Mali requested CTCN technical assistance to define, select, develop and pilot an agrometeorological information system in 2021. Reliable and accessible weather forecasts are crucial in countries like Mali, where farming employs about 75% of the population and 50% of the GDP. CTCN partnered WeatherForce to build MaliCrop, a mobile app that can analyse 10 years' worth of data, which significantly increases the accuracy of weather forecasts. It predicts temperature, humidity and precipitation. However, many farmers do not have access to high-speed internet. Therefore, the forecast is read from the mobile app and is broadcasted through a local radio station in French and several local languages. It regularly reaches over 110,000 people.

CTCN has a long tradition of mainstreaming gender, but evaluations have identified that gender focus is less visible in country-specific TA. There, CTCN has set-up a Gender Task Force in 2022 comprised of several of its Advisory Board members and led by the UNFCCC Women and Gender Constituency[2] to revise the CTCN Gender Policy for the period 2023–2027 and formulate its Action Plan for 2023–2024. The updated Policy and Action Plan was endorsed by the Advisory Board in 2023. Furthermore, CTCN has a longstanding partnership with the Women and Gender Constituency to support Gender Just Climate Solutions (GJCS), a programme designed to showcase, support and amplify grassroots initiatives that prioritize gender equality and women's rights in climate action. Furthermore, the CTCN launched a new Climate Technology & Gender Expert Rooster and an ambitious gender policy and monitoring system. To ensure a stronger gender-focus in country-specific TA, CTCN has introduced an allocation of a minimum of 5% of its funds to gender mainstreaming activities.

Human rights and poverty orientation is also a priority of the CTCN. The advisory board has a permanent seat to indigenous people and some activities but limited focus on technical training which indicate opportunities to strengthen this work. The voice of youth also has a seat in the advisory board and operates the Youth Innovation Climate Labs and many training sessions targeted youth entrepreneurs. CTCN also follow a human rights approach based on the UN system's guidelines and regulation, including the operations of UNEP as the host of the CTCN.

The Danish contribution to CTCN will not be earmarked but form part of the multi-donor fund in line with several other donors. CTCN has confirmed that the multi-donor fund will only support OECD-DAC eligible developing countries. Denmark supports the recent introduced programmatic approach into five thematic system transformation areas while maintaining the demand-driven nature of CTCN TA. Furthermore, the priority given to support African countries, with a specific focus on fragile and conflict-affected countries and a 5% allocation to gender activities in TA are all well-aligned with the Danish strategy for development assistance. CTCN has also formalised several specific collaborations with climate funds such as GCF and Adaptation Fund.

[2] The Women and Gender Constituency (WGC) is one of the nine stakeholder groups of the UNFCCC. Established in 2009, the WGC now consists of 33 women's and environmental civil society organizations.

Against this backdrop, Denmark has identified six areas of the CTCN programme of work that will be a priority to monitor and influence towards 2027: (i) CTCN should continue to prioritise support to the poorest and most climate vulnerable countries, particular in Sub-Saharan Africa and conflict-affected countries, (ii) CTCN should strengthen mainstreaming and implementation of gender and poverty orientation in the individual CTCN TA activities, (iii) Focus on the implementation of a more programmatic approach, including harvesting co-benefits of bundling activities into the five transformative areas, (iv) CTCN should promote early stage engagement and more formal collaboration with other multilateral agencies, private sector or donors to ensure stronger up-take of the TA, (v) CTCN should strengthen monitoring and evaluation on the up-take of technical assistances to enable more long-term transformative changes, (vi) CTCN should encourage stronger focus country-driven TA's targeted climate-technologies related to climate adaptation.

The Danish MFA will pursue progress on the six identified priority areas through a pro-active observer role or as a member of the CTCN Advisory Board. The yearly bilateral consultation with the CTCN secretariat will also be an opportunity to review and assess CTCN progress report up against the Danish priorities. Denmark will also establish a close dialogue with relevant donors and members of the advisory committee on certain priorities. Denmark has already established a positive dialogue with several donors and ongoing dialogue with the CTCN secretariat.

Finally, Denmark will also on a yearly basis assess the up-dated list of country-driven processes supported by CTCN and seek opportunities for potential synergies with relevant Danish bilateral programmes, engagements and policy priorities (see full list TAs in Annex 10).

2.4. Lessons learned and partnerships

Since its inception in 2014, CTCN has provided TA to 115 developing countries for a broad spectrum of both mitigation and adaptation technologies in support of achieving progress on the implementation of their NDCs. These country-driven TA processes has both informed climate-relevant policies and regulations, built national capacity, assessed technology needs, creation of national markets and facilitated access to finance. In the current work plan, it will critical to strengthen a further focus on the up-take and scale-up of the TA support. It has also proven to be important to increase collaboration with other climate funds and multilateral agencies/banks to move closer to implementation. The evaluation in 2021 included an NDE Survey that found for more than 80 per cent of respondents, their countries had implemented recommendations from CTCN technical assistance through activities such as submission of funding proposals and implementation of policy recommendations.

A recent review of the CTCN was completed in May 2024 by UNEP's evaluation office (funded by EU) which covered implementation up to 2022. It does therefore not not consider the recent changes in new PoW. It recognizes the high importance of the technology transfer for achieving the Paris Agreement and the relevance of the CTCN as a key agency to implement the objectives of the UNFCCC by promoting adaptation and mitigation technology transfer through small size catalytic projects. It also found that the demand-driven approach is adequate but more focus is needed to operationalise the anticipated impacts of the TA's. Key findings are briefly summarised in Box 1.

Box 1: Key findings of the 2024 evaluation of the CTCN

- Recognizing that CTCN has worked in different ways in different contexts with high level of diversity. The different stakeholder groups also had different expectations of the CTCN – from fragile states and least developed countries to middle countries. While this diversity was a benefit in terms of being able to respond to the needs of the countries, it also created challenges in systematizing processes and learnings across countries.

- Implementation of TA from network members was considered efficient but external driven processes can limit the country's ownership and the country's ability to maintain a relevant role in the planning and implementation of the technical assistance. Furthermore, it limits the more strategic considerations at global level and technology database or as an easy-to-use technology catalogue would be useful knowledge platform.

- It was found that TA projects that were designed from the start with a link to other financing mechanisms such as GCF tended to be more successful in leveraging the funding needed for further piloting or technology transfer, and thus also increasing the CTCN catalytic effect and the likelihood of impact deriving from an individual TA. These cases highlighted the catalytic role and the potential of small-scale TA support for technology transfer.

- Gender focus, policies and guidelines were found adequate but was not a guarantee for securing a gender-responsive TA implementation or sufficient assessments of gendered impacts of climate change within the implementation process. This means that specific attention for rolling out the guidelines and training is needed for meaningful integration of gender perspectives in climate technology programming. Similar case with human rights-based approach.

- It was also found that CTCN results monitoring mainly focused on anticipated impacts and limited connection to actual impacts could be found in the six country cases. Yet, it was also acknowledged that it was difficult and that six years being a short time before a technology transfer is turned into impact. However, more focus on realization and monitoring of long-term impacts was recommended to enable the CTCN catalytic effect and likelihood of impact.

- Areas that would have benefited from further attention in the implementation of TA were financial sustainability and responsiveness to human rights and gender equality.

The Danish MFA has noted that the CTCN already has addressed several of the findings third PoW 2023-2027. CTCN has introduced five system transformation areas to strengthen a more programmatic approach that can complement the country-driven response to the climate technology needs. This approach moves beyond the "single project approach" by clustering the demand-driven CTCN technical assistance and the five transformative areas in a more strategic direction where learnings across countries and regions can be shared.

CTCN has also aligned closer to GCF where a new small CTCN branch office has been opened in Songdo, launched a joined programme with TEC (PoW 2023-2027). CTCN also forms part of the Adaptation Fund's Climate Innovation Accelerator (AFCIA) and it is an implementing partner for GEF's Piloting innovative

Financing for Climate Adaptation Technologies in Medium-sized Cities. Further collaboration with MDB's and other multilateral agencies, particular in the early stage of the TA and in the later follow-up process.

In 2023, CTCN has also introduced a minimum allocation of 5 % of its funds to gender mainstreaming activities (before it was 1-3%). Since 2024, It has also been made mandatory to establish a national Steering Committee with multiple stakeholders to increase ownership of CTCN technical assistance. It has also become mandatory that each TA presents a closure report and a post-implementation impact assessment to monitor the long-term impact and additional finance leveraged.

It is evident that the CTCN matured and implemented lessons-learned based on recommendations from the NDEs, Advisory Board and the independents reviews during its 10 years of operation. However, it will be critical to continue focusing on delivering transformational change and impacts, and by this enable the catalytic potential of the relatively small TA's. In its donor role, Denmark will work for more focus on post-impact monitoring and strengthening financial/policy sustainability as well as better integration of gender and human rights in individual technical assistances.

3. Work Programme 2023-2027 and CTCN mandate

The CTCN's mandate is to promote accelerated, diversified and scaled-up transfer of environmentally sound technologies for climate change mitigation and adaptation in developing countries in line with their development priorities.

CTCN's 3rd Programme of Work 2023–2027 was for the first time launched as part of the TEC-CTCN Joint Work Programme. The goal is to enable the CTCN to continue and strengthen its mandate to respond to country-driven requests for building and supporting developing country capacity to address technology challenges and opportunities for climate adaptation and mitigation.

The third PoW builds on the CTCN achievements of the past 10 years and the mandate provide by the Conference of the Parties (COP). While it is continuing its demand-driven, it is also introducing a stronger programmatic approach to enable broader system transformations. A major shift is the introduction of two enablers (National Systems of Innovation and Digitalisation) that shape the five system transformations areas as described below.

1. *The Water-Energy-Food Nexus* is interconnected and technology can contribute to new and efficient use of scarce resources and be a gateway to reduce emissions, build local climate resilience, and meet the SDGs.
2. *Buildings & Infrastructure* need to be made more resilient, but new technologies and regulations also present opportunities for increased emissions reductions using new building standards, business models, nature-based solutions and digital technologies.
3. *Sustainable Mobility* has rapidly picked up speed across the globe and is increasingly essential for climate mitigation and broader quality of life and development concerns; and developing countries should not be left behind.
4. *Energy Systems transformations* remain fundamental to reducing emissions, as cities and urban systems offer substantial opportunities for decarbonization and are key enablers for actions to enhance climate adaptation.

5. *Business & Industry* are both a major source of emissions and an essential sector for developing and implementing climate technology solutions in developing countries.

Introducing a more programmatic approach is a direct response to the independent reviews and learnings during the past decade. CTCN aims to improve the efficiency and impact country-driven interventions to drive forward more transformative change and learnings across regions and globally. The purpose is to catalyse the demand-driven and short-term technical assistance into substantial long-term impacts and results. It can be done in many different ways such as by enabling relevant policy and regulatory frameworks, introduce new planning tools. CTCN technical assistance can also catalyse access to financing to scale-up the access to technology. To deliver these results, the third PoW has a major focus on enhancing partnerships with the private sector and multilateral finance mechanisms but also to enhance systemic approach to gender and engagement of youth.

The third PoW will still continue to facilitate a country-driven process by providing technical assistance and capacity building. It will build on planning tools and processes such as Technology Needs Assessments (TNAs) and enable the implementation of their results to shape national adaptation plans, technology road maps, and enhanced enabling environments. By supporting developing countries' needs for climate-relevant technologies, CTCN is supporting countries to drive forward critical climate technology innovations as well as prepare relevant policy and regulatory framework for national systems of innovations.

The PoW will continue to operate through CTCN's three core services (i) *Technical assistance* at the request of developing countries (NDE's) to accelerate and unlock the transfer of climate technologies valued at a maximum of 250.000 USD per request; (ii) a worldwide network fostering collaboration and innovation among different climate technology stakeholders and leveraging the CTCN's expertise from over 840 network members and 160 NDEs in the global South and North, (iii) Knowledge sharing & capacity development through a broad range capacity development workshops and training on adaptation and mitigation technologies, financing and enabling environments at global/regional/and national levels.

As the CTCN is demand-driven to ensure tailor made responses in developing countries when carrying out technological assistance, the CTCN cannot predict future demands across the five systems transformations. Based on data since 2014, however, there is a reasonable assumption that, barring any significant changes or deviating developments, technical assistance requests will continue along the same patterns as before.

4. Theory of change and key assumptions

The Danish contribution to CTCN will not be earmarked to specific areas but rather support the transformation process initiated in the third PoW. Therefore, the Danish support will build on CTCN's own Theory of Change (ToC), which was developed in consultation with the Advisory Board and donors (see Annex 3). The ToC aims to embrace the formal mandate of CTCN, its vision and mission and not least the new priorities outlined in the PoW 2023-2027. By doing so, it also aligns with the original five themes of the Paris Agreement's Technology Framework: (i) innovation, (ii) implementation, (iii) Enabling environment and capacity building, (iv) Stakeholder engagement and collaboration, and (v) Support. Furthermore, the ToC also builds on the three "core service areas" and the two "enablers" and "five transformative system areas" as explained in the former sections.

The ToC also illustrates a continued focus on country-driven approaches but also the more programmatic approach which was introduced in the third PoW. The multiple dimensions makes the ToC comprehensive but also complex to understand at first sight. Therefore, the Danish MFA has made it a key priority to monitor the progress on turning the ToC into results on the ground.

In this context, the Danish support to CTCN will contribute to achieve the Theory of Change in following way.

If Denmark provides financial support to CTCN's PoW 2023-2027, it will contribute to enable CTCN to operationalise its mandate of promoting technology transfer at the request of developing countries in more programmatic approach as the countries seek to meet their Nationally Determined Contribution (NDC) targets, Paris Agreement commitments and enable co-benefits related to the SDGs, gender and poverty alleviation.

And if CTCN responds to developing countries requests for TA with a focus on building and strengthening national capacity to address technology innovation, challenges and opportunities for adaptation and mitigation submitted by NDE's.

And if CTCN facilitates and mobilises its global network of climate technology expects to support, design and deliver customised solutions tailored to local needs, incl. mainstreaming gender equality principles and poverty orientation into its operational work.

And if CTCN, continues to seek engagement with climate funds under UNFCCC and other multilateral agencies and banks to facilitate access to finance and up-take of the TA recommendation.

And if CTCN facilitate a global network of national, regional, sectoral and international technology networks, organizations and initiatives to share knowledge and promote south-south and triangular collaboration.

Then developing countries will have increased capabilities enable climate technology transfer and innovation through adequate policies, regulatory structures, and market creation which takes gender and socio-economic development perspectives into account.

Then developing countries can improve readiness to access financial resources to scale-up their technology needs to benefit a people-centred sustainable development and climate goals aligned to the Paris Agreement.

Then developing countries and non-governmental stakeholders will have benefitted from global exchange of best practices, experiences and knowledge sharing to inform accelerated up-take of climate-relevant technology development and innovation.

The ToC builds on an overall assumption and mandate of the CTCN that climate change constitutes one of the most serious challenges faced by society. Tackling these challenges will require holistic and global efforts, particularly by supporting developing countries and leaving no one behind. It also presumes that there is a large demand by developing countries for enhancing climate technology transfer, innovation and up-take.

The CTCN also builds on the assumption that CTCN can serve as a trusted matchmaker, delivering technology solutions by mobilizing the public and private sector and technology action. It assumes that by supporting developing countries in identifying priority technology needs, establishing an enabling policy environment and building capacity among all stakeholders then it will be possible to access finance and investment to improve climate resilience and mitigate climate change.

5. Objective and summary of the results framework

The overall objective of the CTCN's is to support Parties to achieve their commitments of the Paris Agreement through technology development whilst transferring to implement their NDCs, improve resilience to climate change impacts, and to mitigate climate change.

Denmark will support CTCN's PoW 2023-2027 and follow the progress on the work programme through annual reports, advisory board meetings and assessment of progress up against the agreed results framework approved by the CTCN Advisory Board. The full result framework that CTCN will report on annually is inserted in Annex 3. The table below is a representative number of outcomes that have been selected for annual reporting in Open Aid.

Thematic Programme		Climate Technology Centre & Network (CTCN) Global Technology Support	
Programme Objective for Danish contribution		Environmentally sound technologies are developed, transferred, and deployed for low-carbon and climate resilient development at the request of developing countries to support implementation of National Determined Contributions, National Adaptation Plans and national plans.	
Impact Indicator[3]		• Anticipated number of policies, strategies, plans, laws, agreements or regulations proposed, adopted or implemented informed by CTCN technical assistance. • Anticipated metric tons of CO2 equivalent (tCO2e) emissions reduced or avoided as a result of CTCN technical assistance (disaggregated by annual and life of project).	
Baseline		2023	As reported in the 2023 Annual Operating Plan Report
Target	Year	2027	N/A (specific targets under outcomes due to demand-driven approach)

UNFCCC Theme	**Intended Outcome**	**Selected indicators**	**2023 (base line[4])**	**2027 (target)**	**Means of Verification**
Innovation	Countries have accelerated innovation at different stages of the technology cycle through collaborative approaches.	Number of countries with strengthened National System of Innovation as a result of CTCN support[5]	8	Target is set at 4-5 per year which represents 20 – 25 over the PoW period	TA Closure report

[3] Is monitored in the annual progress report

[4] As presented at the 24th meeting of the CTCN Advisory Board in the 2023 Annual Operating Plan Report available here

[5] This indicator is measured by the number of countries that have completed technical assistance projects within the reporting year.

Implementation	Countries have clear pathways and options to enhance inclusive, gender responsive technology development and transfer, including endogenous and indigenous technologies.	Number of TAs supported [6]	25 (1 FTA; 24 Tas, incl. 4 TNAs)	Target set at 30 TAs completed per year which represents 150 TAs completed over the PoW period.	
Collaboration	Countries have enhanced enabling environments, including policy and regulatory environments to develop, transfer and deploy climate technologies	Number of policies, strategies, plans, laws, agreements or regulations supported by the technical assistance [7]	22	Target set at 10 per year which represents 50 over the PoW period.	TA Closure report
Capacity building	Stakeholders are actively engaged and have strengthened capacity to implement climate action through collaboration	Number of collaborations with international organizations and stakeholders for the co-development of activities, trainings and knowledge products	46	Target set at 10-15 per year which represents 50 - 75 over the PoW period.	CTCN Knowledge Management System and Event reporting template

6. Inputs/budget

The Danish contribution to the CTCN amounts DKK 30.000.000 DKK and will contribute to the multi-donor fund. In total, the CTCN accessed more than USD 112 million during it lifetime from different bilateral donors and multilateral funds. Major bilateral donors are EU, Japan, Sweden, South Korea, Norway Canada and USA and multilateral funds include GCF, GEF and Adaptation Fund. The indicative five-year cycle budget for CTCN is USD 50,0 million. In addition to the present grant, Denmark is also contributing to CTCN's operational costs through partially covering office costs in the UN City Copenhagen, which is approx. USD 110.000 per year.

The budget includes 7% for administrative costs. Denmark will not earmark its support to CTCN and the grant will therefore not be subject to a 1% levy to the fund of the United Nations Resident Coordinator System. The Danish grant is expected be divided on the following five outcome-based on five themes as defined in the Paris Agreement's Technology Framework. Due to the demand-driven nature of CTCN, it is not possible to predict the exact distribution of funds. The below estimate is based on previously allocation of CTCN funding.

The MFA expects to conduct a financial monitoring visit during the programme period to get a better insight of the spending procedures and balancing of funding to the different programmatic activities as well as adherence to financial policies and procedures.

[6] This indicator is measured by the number of completed technical assistance projects within the reporting year.
[7] This indicator is measured by the number of policies, strategies, plans, laws, agreements or regulations supported by the technical assistance completed within the reporting year.

Estimated budget of Denmarks contribution to CTCN (DKK)

Outcomes	Y1	Y2	Y3	TOTAL
Innovation	4,859,643	5,798,828	7,158,889	17,817,359
Implementation	975,123	1,072,555	1,179,571	3,227,250
Collaboration and Stakeholder Engagement	249,171	311,464	389,730	950,366
Establishing environment and Capacity Building	274,728	343,409	428,862	1,046,999
Support	798,627	798,627	849,739	2,446,992
CTCN Operations	715,569	832,169	1,000,679	2,548,417
TOTAL (net of PSC)	**7,872,861**	**9,157,052**	**11,007,470**	**28,037,383**
Programme Support Cost (PSC) 7%				1,962,617
TOTAL				**30,000,000**

7. Institutional and Management arrangement

The Climate Technology Centre and Network is part of the United Nations Framework Convention on Climate Change Technology Mechanism (Diagram 1). Within this mechanism, the CTCN is considered the implementation arm providing technical assistance, capacity development and knowledge sharing at the request of developing countries, while its sister organisation, the Technology Executive Committee, reviews and provides recommendations on technology-related policies. The CTCN coordinates directly with National Determined Entities (NDEs) to solicit and manage requests for assistance. It also ensures its accountability to the UNFCCC Conference of Parties through the oversight of the CTCN Advisory Board.

The CTCN's governance is provided by the UNFCCC Conference of the Parties by providing guidance and entering a hosting memorandum of understanding. The CTCN reports to the Conference of the Parties, through the subsidiary bodies, on their respective activities and the performance of their respective functions. The Advisory Board of the CTCN determines its operational modalities and rules of procedure. The CTCN Advisory Board has 30 members, meetings are every six months for 2-3 days, and they guide CTCN, approve procedures and the annual operating plans including annual budgets, endorse financial

statements, monitor CTCN activities and results. Denmark participates currently as an observer of the Advisory Board and is inviting to all meetings as the host country of the CTCN.

The CTCN is hosted by UNEP, which is responsible for the CTCN's operations, staffing and financial management. The CTCN's Secretariat is based in UN City Copenhagen, with additional support and technical staff based in UNEP offices. New smaller CTCN offices have been opened, e.g., Partnership and Liaison Office in Korea. The regional technical team works closely with each country's NDE and partner organisations to deliver technical assistance, capacity development and networking opportunities. The CTCN relies upon the technical and administrative expertise of staff from its host institution, UNEP, together with the ability to hire short term consultants as needed, to enable the CTCN to effectively deliver upon its mandate including on the CTCN´s cross-cutting activities and ensuring that lessons learnt and knowledge sharing opportunities are transmitted globally.

UNEP hosts the CTCN as a dedicated entity within UNEP consistent with UNEP regulations, rules, procedures, and the provisions of the host agreement. As such, administrative, reporting, and contractual aspects are managed by UNEP. The administrational set-up between UNEP and CTCN has been rated as 'satisfaction able' in the recent evaluation financed by EU, though some learning aspects could be made more efficient.

The partnership between the Government of Denmark and the CTCN will be overseen on the Centre's side by the CTCN Director, and supported by the Donor Engagement and Resource Mobilization Specialist and the Finance Specialist. An annual meeting between the MFA and CTCN leadership in order to discuss progress and implementation will be arranged. The meeting will be held in connection with the spring meeting of the Advisory Board in March/April, where reporting from the previous year must be available. Furthermore, CTCN must submit the annua report, audited financial statement, work plans (as approved by the Advisory Board on the autumn session) as well as progress of the updated Results Framework based on the annual plan and with updated indicators for the year as relevant. This documentation must at the latest be made available to MFA by 30th June of the following year of the reporting period (six month after end of the fiscal year). UNFCCC will conduct an independent review of CTCN (likely to take place in 2026) and Denmark does not expect to carry out a separate Mid-Term Review. In addition, the European Commission has two reviews planned during the PoW period (one recently completed)

Anti-corruption and SEAH measures: The overall governance and management of the CTCN is structured according to decisions made by the UNFCCC Conference of the Parties (COP) and are detailed in a Memorandum of Understanding (MoU) between the COP and the United Nations Environment Programme, as leader of the CTCN's Consortium, regarding the hosting of the Climate Technology Centre. UNEP hosts the Centre as a dedicated entity within UNEP consistent with UNEP regulations, rules, procedures, UNEP Governing Council decisions, and the provisions of the host agreement. As such, administrative, reporting, and contractual aspects are managed by UNEP.

The CTCN does not conduct fund transfers to partner countries and hence, anti-corruption measures in the partner countries are focused on the process of tendering, award, or execution of contracts with local consultants. Procurement of goods and services is conducted via the procurement systems of UNEP and are subject to the guidelines and regulations of UNEP. Attention is given to detecting that no offer, payment, consideration or benefit of any kind, which could be regarded as an illegal or corrupt practice, are made, promised, sought or accepted - neither directly nor indirectly - as an inducement or reward in relation to

activities funded under the CTCN in the partner countries. Any such practice will be grounds for the immediate cancellation of the engagement or parts of it, and additional action, civil and/or criminal, as may be appropriate. Similarly, the same measures shall be exercised towards CTCN in any tendering, award, or execution of contracts with local and international consultants.

As aligned with UNEP, CTCN has a strict zero tolerance policy for any sexual harassment and sexual exploitation and abuse and follows UNEP policies covering SEAH such as ST/SGB/2019/8 Addressing discrimination, harassment, including sexual harassment and abuse of authority; ST/SGB/2003/13 Special Measures for protection against sexual exploitation and sexual abuse; ST/AI/2017/1 Unsatisfactory conduct investigation and the disciplinary process and a Code of Conduct to prevent harassment.

Communicating results: The CTCN employs a Knowledge & Communications Manager and a Communications Specialist and communications to conduct the CTCN's communications, outreach and knowledge sharing activities. The CTCN utilizes its own website, events, annual Progress Report, reporting to the COP, videos, and social media channels to generate awareness of the CTCN's services, ensure visibility and transparency, communicate the results of its work to the countries it serves, its development partners, and host institutions. In addition, the CTCN utilizes the communications platforms of its host agency, UNEP, as well as that of the UNFCCC to further disseminate its communications (see Annex 7).

8. Financial Management and reporting

Management of the contribution and expenditures shall be governed by the regulations, rules, and directives of UNEP. UNEP shall ensure that the contribution is recorded in the accounts of UNEP and reported together with all other funds to the CTCN Trust Fund. Furthermore, the Danish funds should also be compliant to the Danish Aid Management Guidelines as outlined in the present document.

The CTCN is mandated to serve countries classified as Non-Annex I countries by the UNFCCC. This classification includes a few countries that are not represented on the OECD Development Assistance Committee's list of overseas development assistance recipients. The CTCN therefore commits to ensure that no Danish funds will be utilised in the delivery of assistance to non-ODA countries and will document this in its reporting to the Ministry of Foreign Affairs.

The transfer of funds should follow the plan outlined on the cover pager and it will be subject to evaluation of the spending of funds. The CTCN will be responsible for submitting disbursement requests and should confirm once funds have registered on the account of the CTCN/UNEP.

CTCN is responsible for submitting the financial audited accounts of the CTCN, annual report and annual progress up against the results framework to the focal point at the MFA after approval of the Advisory Board. The submission should be made in a separate email and form part as the broader package to the advisory board meetings. The Danish contribution to CTCN is not earmarked and no specific report for Denmark is expected.

Within six months after the date of completion or termination of the Agreement, a final report summarizing activities and impact of activities as well as financial data will be delivered. Upon completion of the grant any unspent funds must be returned to MFA. Interest accrued on the Danish grant will not be calculated

separately and thus not returned to the MFA, rather CTCN will strive to ensure that disbursement requests to the MFA match liquidity needs for activities in the best possible manner.

The responsible MFA unit holds the right to carry out any technical or financial missions that is considered necessary to monitor the implementation of the programme. After termination of the programme support, the Green Diplomacy and Climate within the Ministry of Foreign Affairs of Denmark reserves the right to carry out evaluation in accordance with this article.

9. Risk Management

The CTCN has a very clear mandate from the UNFCCC and the Paris Agreement to support the implementation of climate technology development and transfer. The CTCN technical assistances are relatively small in scale and often aims to be catalytic in nature and represent the initial steps towards larger-scale projects and more systemic transformative change. In this context, the following contextual, programmatic and institutional risk should be understood (see risk matrix in Annex 4).

The contextual risk for this programme is increasingly influenced by a more uncertain geopolitical situation where work of the CTCN could become more politicized. Particular in case of increasing uncertainty of trade and technology development. Furthermore, high levels of debt, inflation and exchange rate fluctuation are becoming a barrier for financing and investing in new technologies in many developing countries. This is so far mitigated by keeping the Advisory Board meeting highly technical and TA projects promoting the first analytical steps in technology policy making. All TA projects are country demand-driven by the NDE's and aligned with country's own national priorities and broader national Steering Committees are established to include broader perspective on up-take and implementation of the TA.

The main programmatic risk is that CTCN outputs which create enabling environment for technology scale up are reversed due to change in national political affiliations and as well limited resources by the countries' NDE's. The CTCN is countering this risk by basing its interventions on a country-driven approach which is tailormade to the country and reflected in the national NDC's and climate planning. Furthermore, national Steering Committees have become mandatory to reflect the often cross-cutting nature of many technologies. High level of staff turn-over in NDE's continue to be a challenge. At the global level, CTCN has faced challenges setting the global agenda on technology transfer. The new programmatic approach with five system transformation areas is expected to cluster the learnings to share knowledge across stakeholders at regional and global levels.

The institutional risks are related to the limited capacity of many of the National Designated Entities (NDEs) and also limited influence on national planning and budgets. Furthermore, and the relatively small and time-bound support provided by the CTCN. The CTCN aims to reduce these risks by connecting NDEs closer to UNFCCC Financial Mechanism such as GCF, GEF and Adaptation Fund. It is also a priority for CTCN to enhance a closer collaboration with donors and climate funds to scale up the processes and knowledge initiated by the small CTCN TA support. Furthermore, it is critical that CTCN network members become more active and supporting the international agenda. More than 50% of the members are from the private sector which is critical for accelerating technology transfer.

10. Closure and sustainability

The recent 2024 evaluation of CTCN found that the demand-driven nature of the CTCN TAs and close alignment with national climate priorities was important to enable sustainability. Furthermore, it was found that CTCN TA's, that was connected to international financing, had better opportunities for further implementation and up-take of the technologies. As all CTCN TA's are designed as short-termed support, sustainability is already integrated in the approach. In recent years, additional initiatives have been promoted to encourage even stronger incentives of up-take of the TA recommendations and analysis.

Denmark is, with this financial contribution, only committing support to end of 2027 where the current PoW is ending. A potential exit strategy for the Danish support to CTCN 2023-2027 will be discussed during the annual meetings between CTCN and the MFA. Currently, CTCN has several donors, and an end of the Danish support would primarily lower the ability of CTCN to meet the growing country demands for TA.

CTCN's final report to the MFA for present contribution should be submitted no later than end of Q2, 2028. The MFA's final results report will follow CTCN's final report to the MFA. Closure of accounts, final audit, administrative closure will be completed by mid-2028.

Annexes:

Annex 1: Context analysis

Summary context analysis

Climate change is considered one of the greatest threats to global development and stability in our time, with potentially dire impacts to food systems, livelihoods, and human safety. Indeed, according to the UNDP 2023 Human Development Report, climate change has the potential to trigger political instability, further entrench inequalities and drive back many of sustainable development's achievements attained in previous decades. The World Bank estimates that climate change can push up to 130 million back into extreme poverty by 2030.

Addressing climate change will not only avoid negative consequences. It also presents an opportunity to improve health, reduce inequalities, create growth in "green" jobs and improve economic competitiveness, while ensuring cleaner air and more secure supplies of energy and other vital resources. Likewise, incorporating gender and multi-generational considerations will result in more inclusive and sustainable outcomes which further improve equality. By interconnecting climate action (Paris Agreement) and sustainable development (Agenda 2030) can bridge trillions of dollars of investment in co-benefits and mutually reinforcing investment.

Technologies are considered vital to building climate-resilient societies, transitioning to low-carbon economies, and bridging an ever-expanding reliance on modern technical know-how in order to compete in the global marketplace. An overwhelming number of developing countries' Nationally Determined Contributions indicate a requirement for technology support and capacity development in order to implement their commitments. Many of the necessary technologies exist already. The real challenge is to get them where they are needed, to adapt them and to scale up. To do this requires a global effort to coordinate the delivery of tools, skills, knowledge, and financing between those with specific needs and those that can fulfil them. Support for innovation and de-risking ambitious efforts will help to fill gaps and raise impact. A strong facilitation system, participation of the private sector, and trust are key factors for success. However, more is needed to ensure gender perspectives, engagement of youth and indigenous peoples and ensure a stronger focus of fragile and conflict-affected states to benefit from climate technology and financing.

The interlinkages between climate change and sustainable development are strong in CTCN. The programme's aim is to support developing countries to implement their Nationally Determined Contributions and other key climate change planning documents to meet global goals for low-carbon, climate resilient economies and sustainable development.

The number of world's population living in fragile and conflict affected countries is increasing due to a combination of factors, including threats posed by climate change. Programme activities that include a focus on gender equality, youth educational and employment generation and private sector development together with the primary climate change focus to contribute to increased resilience in countries.

Climate change and efforts to address it have the potential to affect women, men, and youth in different ways. For example, entrenched and systemic discrimination can make some women and girls more vulnerable to climate change with respect to health, food security, livelihoods and human mobility while excluding women and youth from climate action makes it less effective and can further exacerbate climate harms.

By encouraging implementation with adherence to human rights principles of participation, accountability, non-discrimination, and transparency, and supporting the meaningful and informed participation of women

and youth in relevant decision-making processes and activities, the programme will ensure more inclusive, effective and impactful climate change and sustainable development outcomes.

The capacity of the public sector to plan and implement national climate change goals and commitments varies widely across developing countries but is a crucial factor in promoting and facilitating climate change action at the national and local level. The programme will provide support to developing countries to build institutional capacity to identify technology priorities, strengthen enabling environments, make informed decisions, and provide economic incentives to transition to a low-carbon and more climate resilient society.

Overall, the proposed programme is closely aligned to Denmark's interests and areas of expertise and offers considerable opportunity for Danish companies and organizations to engage in climate change and technology work in developing countries.

The analysis demonstrates that there is a wide range of stakeholders interested in or potentially positively affected by the programme. Among the stakeholders, the Climate Technology Centre & Network offers the best overall prospect for partnership, given their considerable experience, global adaptation and mitigation focus, efficient multi-stakeholder technology broker implementation model, strong oversight and engagement of 2 key UN agencies, and ability to provide bespoke assistance to developing countries in overcoming technology, capacity, and financial access challenges in order to unlock more transformational climate outcomes and NDC implementation.

1. Poverty and Inequality analysis

Status regarding multidimensional poverty:

The UN Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) published a report measuring multidimensional poverty, which demonstrates that 25 countries halved their Multidimensional Poverty Index (MPI) in four- to twelve-year periods. It demonstrates in other words that it is possible to half poverty according to national definitions within 15 years (SDG target 1.2).

Yet, 1.1 billion out of 6.1 billion people across 110 countries (just over 18%) still live in acute multidimensional poverty, according to the report. Approximately five out of six poor people live in Sub-Saharan Africa (534 million) and South Asia (389 million). Almost two-thirds of all poor people (730 million) reside in middle-income countries (MICs). And although low-income countries (LICs) make up only 10% of the population covered by the MPI, they are home to 35% of all poor people. Furthermore, the World Bank estimates that up to 130 million people can be pushed back into extreme poverty by 2030 due to climate change. CTCN has been supporting more than 100 countries but particular benefitting countries on the African continent with clear focus on ensuring co-benefits of other SDG's.

Disaggregating poverty data by subnational region, age group and rural-urban area illuminates stark inequalities within countries and reveals what groups are being left behind. Over half (566 million) of the 1.1 billion poor people are children under age 18 and almost 84 percent of poor people live in rural areas, and rural poverty dominates in every world region. Furthermore, women and indigenous peoples tend to be more vulnerable.

Climate change and gaps in technology access & skills have the potential to drive back previous development and equality achievements if not addressed adequately. Rapid technological progress is paving the way for green solutions, as seen with the falling cost of renewable energy to competitive levels, but these advances will not occur fast enough on their own. The magnitude of the response must match its scale and valuable opportunities exist to accelerate progress by leveraging interlinkages across key development goals. The CTCN will utilise the established framework of the Sustainable Development Goals and the Paris Agreement to assist developing countries in meeting their climate change commitments. A new generation of global inequalities fuelled by a post-COVID 19 environment, the effects of climate change and lack of technologies and related skills could trigger a backslide on previous SDG achievements if left unchecked.

The climate crisis is already hitting the poorest hardest, while technological advances such as artificial intelligence and access to green technologies threaten to leave behind entire groups of people. These issues may also serve to further entrench gender inequalities as well as the ability of young people in developing countries to attain stable and supportive livelihoods. However, valuable opportunities exist to accelerate SDG progress by leveraging interlinkages across key development goals. For example, reducing greenhouse gas emissions can create new jobs, build more liveable cities, and improve health and prosperity for all.

Status and progress in relation to SDG 1 No Poverty:

At the half-way point toward 2030, the SDGs are far off track with only 2 out of 36 targets reviewed in the Global Sustainable Development Report 2023 on track to be achieved. Implementation has been too slow and even regressing in areas such as climate action, biodiversity loss and inequality before the pandemic and has now suffered massive setbacks including in poverty eradication, gender equality, education and eliminating hunger. Entwined shocks such as the COVID-19 pandemic, conflicts in many regions, a cost-of-living-and debt crisis, and climate related disasters are connected through environmental, economic and social systems that create intensifying SDG backslides. The SDGs are interlinked and must be approached holistically based on context specific analysis.

For SDG 1 in particular, the progress is bleak with COVID-19 and climate change taking a significant toll. Since 2015, global poverty reduction was already slowing down and the impacts of the COVID-19 pandemic reversed three decades of steady progress with the number of people living in extreme poverty increasing for the first time in a generation. Recovery from the pandemic has been slow and uneven as the world is presently facing multiple geopolitical, socioeconomic, and climatic risks. Given current trends, 575 million people (nearly 7% of the world's population) will still be living in extreme poverty in 2030 compared to 800 million in 2015 (or 10.8%). Eradicating extreme poverty will be particularly difficult in sub-Saharan Africa and conflict-affected areas. Despite the expansion of social protection during COVID-19, over 4 billion people globally remain entirely unprotected. A surge in action and investment to enhance job opportunities and extend social services to the most excluded is crucial to delivering on the central commitment to ending poverty.

Increasing the interlinkages between climate action and achieving the SDG's will be critical. A stronger interconnection and synergistic action is needed otherwise it will not be possible to realise progress on

both the Paris Agreement and Agenda 2030. A recent report by UNDESA/UNFCCC's expert group showed that by maximizing these synergies, investment gaps worth trillions of dollars could be bridged. Through strategic synergist action, resource allocation could be optimized to address the ongoing immense financial challenges for climate and development objectives. Despite climate finance almost doubling in the last decade, a shortfall of over USD 9 trillion in annual finance flows by 2030 remains to meet the 1.5°C global climate scenario of the Paris Agreement, with severe impacts and consequences especially for low-income countries.

Status and progress in relation to SDG 10 Reduce Inequality within and among countries

Inequality is at the heart of many of the gravest issues facing the world, including development, climate, and peace. It affects people and structures across societies and borders and threatens to thwart hard-fought development gains. A recent United Nations report shows that 20% of development progress was lost in recent years due to the unequal distribution of education, health, and living standards. Likewise, the World Economic Forum has calculated that it will still take women almost 100 years to reach gender equality. Exclusionary practices in security, justice, and politics are at the heart of many violent conflicts today. Indeed, it is seen as a key factor in the rise of current protests around the globe. The 2023 Human Development Report stresses that inequality will be impacted by both climate change and technology in the near future, and therefore approaches to these issues must take into consideration issues of equality.

Before the pandemic, the incomes of the bottom 40% of the population grew faster than the national average in a majority of countries. The impacts of the pandemic and uneven recoveries in different regions of the world threaten to reverse that trend and further worsen global inequality. Record numbers are being forced to flee conflicts and economic hardship. By mid-2022, one in 251 people worldwide was a refugee, the highest proportion ever documented. Achieving SDG 10 requires concerted efforts to address the root causes of wage disparities and access to resources both within- and between-country inequality.

2. Political Economy and Stakeholder Analysis

Economy: In general, governments, especially in developing countries, are trying to balance today's pressing needs with long term planning and risks. Particular developing countries is increasingly facing challenges with rising interest and depreciating exchange rates which are increasingly closing doors to credit for developing countries. It forces developing countries to borrow at higher interest rates, further exacerbating the ballooning level of global debt. The interest cost on external borrowing is on average three times more for developing countries than for developed countries, according to Brookings. Developing countries in particular saw external debt levels grow by 15% last year compared to pre-pandemic levels, according to the United Nations. This particular a challenge for investing in green technologies which often impose higher upfront investment in infrastructure compared traditional fossil-fuel technologies. High inflation, unsustainable levels of debt and currency depreciation are other economic challenges making climate technology transfer to LDC's and fragile countries particular difficult. This unfavorable situation is further exacerbated by higher raw material prices to build sustainable infrastructure and renewable energy. Despite climate finance almost doubling in the last decade, a

shortfall of over USD 9 trillion in annual finance flows by 2030 remains to meet the 1.5°C global climate scenario of the Paris Agreement, with severe impacts and consequences especially for low-income countries. Climate funds and new guarantee scheme can mitigate some of challenges and barriers for accelerate investment in much need climate-relevant technology but it also requires transparent national policies and regulations.

Sustainable development: At the same time, 2020 ushers in the ten-year countdown to deliver on the Sustainable Development Goals (SDGs) and is a crucial year for ensuring that policies, financing, and ambition align to reach the Goals by 2030. To be sure, the world has made substantial strides: The extreme poverty rate has fallen below 8%, the lowest recorded level in human history. For the first time since the start of the SDGs, the number of people in extreme poverty in Africa is decreasing. India, once a global hot spot for poverty, is now on track to end extreme poverty. Children around the world are living longer and healthier lives. The mortality rate in children under five has nearly halved over the last twenty years and more children than ever are receiving an education, getting necessary vaccinations, and drinking clean water. More people have access to electricity and nearly three-quarters of the world has essential health services. Despite these achievements, there are several important challenges ahead.

However, climate change is considered the defining crisis of our time and is happening even more quickly than anticipated. Rising temperatures are fuelling environmental degradation, natural disasters, weather extremes, food and water insecurity, economic disruption, and conflict. In addition, a growing global movement of young people impatient for change is pushing climate protection to the forefront global awareness. The 2015 Paris Agreement on climate change calls for holding warming well below two degrees Celsius, and for efforts to limit the increase even further, to 1.5 degrees. But if global emissions are not drastically diminished, temperatures could rise to above three degrees Celsius by 2100, causing further irreversible damage to global ecosystems.

Inequality: Inequality is at the heart of many of the gravest issues facing the world, including development, climate, and peace. It affects people and structures across societies and borders and threatens to thwart hard-fought development gains. A recent United Nations report shows that 20% of development progress was lost in recent years due to the unequal distribution of education, health, and living standards. Likewise, the World Economic Forum has calculated that it will still take women almost 100 years to reach gender equality. Exclusionary practices in security, justice, and politics are at the heart of many violent conflicts today. Indeed, it is seen as a key factor in the rise of current protests around the globe. The 2019 Human Development Report stresses that inequality will be impacted by both climate change and technology in the near future, and therefore approaches to these issues must take into consideration issues of equality.

Technology: Technological advances can support and accelerate achievement of each of the 17 Sustainable Development Goals, from ending extreme poverty to combating climate change, promoting sustainable farming and decent work, and achieving universal literacy. But technologies can also threaten privacy, erode security, and fuel inequality if access to technology access and requisite skills are lacking.

Shifting Demographics: The world's population is expected to increase by two billion people, from 7.7 billion at present to 9.7 billion in 2050. In terms of migration, while the percentage of international migrants has remained around 3 per cent of the global population over the past two decades, their number has increased by more than half since 2000. At the same time, the number of people forced to flee their

homes has risen sharply due to conflicts and could increase further due to climate change and environmental degradation.

Corruption: In terms of corruption, the 2019 Corruption Perceptions Index shows more than two-thirds of countries, along with many of the world's most advanced economies, are stagnating or showing signs of backsliding in their anti-corruption efforts. Building out new renewable and climate resilient technologies at scale also opens new opportunities for preventing corruption through more open, transparent and market-based competition.

Stakeholder analysis:

The analysis demonstrates that there are a wide range of stakeholders interested in or potentially affected by the programme, and that most of these stand to benefit from the programme's activities. Among the stakeholders, the Climate Technology Centre & Network offers the best overall prospect for partnership, given their considerable experience, global adaptation and mitigation focus, efficient multi-stakeholder technology broker implementation model, strong oversight and engagement of 3 key UN agencies, and ability to provide bespoke assistance to developing countries in overcoming technology, capacity, and financial access challenges in order to unlock more transformational climate outcomes and NDC implementation. Technology needs and institutional capabilities depends on the context. In some country context basic transfer of technologies can have a live-changing impact on local livelihoods whereas new technologies such as Artificial Intelligence (AI) also need to be considered.

Key stakeholders:

The stakeholders who may be interested in or affected by the program include:

- Developing country constituencies who could be potential direct beneficiaries of the programme (academic, civil society, private sector, research, and public sector entities who may request assistance)
- Women, men, and youth engaged in climate change work
- The private sector as key stakeholder to develop and deploy new technologies relevant for climate mitigation and adaptation measures.
- National Designated Entities (nationally selected UNFCCC climate technology focal points, usually based in Ministries of Environment or Energy, who coordinate CTCN technical assistance requests in-country based upon national climate change priorities)
- The public at large in developing countries who stand to be impacted by the programme
- Technology and capacity building providers who could be eligible to participate in the programme activities as implementers
- Other donors (incl. Canada, the EU Commission, Finland, Ireland, Italy, Japan, Norway, the Republic of Korea, Spain, Sweden, and Switzerland, the U.S.)
- The Adaptation Fund
- Green Climate Fund
- UN Environment Programme (UNEP)
- UN Framework Convention on Climate Change (UNFCCC)

The key stakeholders include:

Stakeholder	Interest	Capacity	Contribution
National Designated Entities (nationally selected focal points on climate technology, usually based in Ministries of Environment or Energy)	To access technology assistance so their countries can implement Nationally Determined Contributions	Varies from country to country	Coordinate CTCN technical assistance requests in-country
Developing country constituencies engaged on climate change: academic, civil society, private sector, research, and public sector	To access technology assistance to achieve their goals vis a vis climate change & SDGs	Varies; some are highly engaged but lack financial and technical resources	Propose ideas for technical assistance; serve as in-country partners
Technology and capacity building providers who could be eligible to participate in the programme activities as implementers (including Danish companies and organizations)	To be contracted to deliver CTCN technical assistance and capacity building or who are interested in technology partnerships, knowledge sharing or expanding their market access	Possess technology, capacity building and/or policy and regulatory guidance expertise	Submit tenders to implement CTCN technical assistance & capacity building; Share knowledge; identify potential partnerships; Invest in technology projects
UN Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP)	To ensure effective delivery of technology services to developing countries as part of achieving the Paris Agreement; The CTCN serves as the implementation arm of its Technology Mechanism, a body of the UNFCCC.	The COP is the supreme decision-making body of the Convention. All States that are Parties to the Convention are represented at the COP, where they review the implement-ation of the Convention bodies and take decisions necessary to promote the effective implementation of the Convention.	Provides guidance to and monitoring of the CTCN's operations through COP negotiations, CTCN Advisory Board & Paris Agreement Technology Framework
UN Environment Programme (UNEP) –	To ensure effective implementation of the	In-house expertise on a variety of climate	Provides administrative & programme support,

Institutional host of the CTCN	CTCN's COP mandate and programme of work.	change-related sectors; Strong institutional guidelines to ensure efficacy and transparency	structure, & oversite to CTCN activities
Gender & youth constituencies	To ensure that gender and youth perspectives/experienc e are incorporated in CTCN service delivery; To access CTCN services	The UNFCCC Women and Gender Constituency and YOUNGO Youth Constituency are knowledgeable and well-organized advocates in the context of climate change	Provide guidance to CTCN operations; Partner with CTCN on knowledge sharing and capacity building activities
Indigenous peoples	Indigenous peoples have particular rights and are among the most vulnerable groups to climate change.	Indigenous peoples' have a representation in the Advisory Board	Provides overall perspectives of indigenous peoples and their need for technologies and risk of adverse impacts on indigenous peoples.
Private sector	A key stakeholder to develop new technologies but also transfer technology to developing countries, incl. financing.	Is represented in the advisory Board and more than 50% of the CTCN member network is private sector.	Provides important knowledge and views on how to transfer technology to developing countries.
Bilateral donors & UNFCCC financial institutions (GCF, GEF, etc)	To ensure sustainability of CTCN services in support of achieving Nationally Determined Contributions	Strong financial and programme capacity; Awareness of ongoing country-level programs of relevance to the CTCN	Provide financial resources and programme partnership to support CTCN mandate

Lead stakeholders and what stakeholders can gain:

The UNFCCC is considered the lead UN agency on the issue of climate change, while developing country constituencies engaged on climate change (i.e. academic, civil society, private sector, research, and public sector institutions) are those the programme aims to serve.

All of the stakeholders are likely to gain from the programme. National Designated Entities and potential beneficiaries will gain increased access to essential technologies and strengthened enabling environments. Current and potential Network members will benefit from participation in tendering opportunities to implement technical assistance, as well as the chance to exchange knowledge and seek partnerships within a global network. Gender and youth organizations will gain a platform to generate greater awareness of the important roles of gender and youth in climate change action; and from which to access CTCN services. Aforementioned UN agencies will appreciate Danish bilateral support to enhance the CTCN's delivery towards its global climate change technology support mandate.

Among the key stakeholders, National Designated Entities and current Network members are engaged through direct email and phone/online calls by the CTCN, annual regional CTCN forums, and bi-weekly e-newsletters. Potential Network members and beneficiaries are engaged at numerous global, regional & national events, the CTCN website, social media, earned media, and bi-weekly e-newsletters.

List the key documentation and sources used for the analysis:

- Global Multidimensional Poverty Index 2023: 2023mpireporten.pdf (undp.org)
- Human Development Report 2023
- SDG progress report SDG Progress Report Special Edition.pdf (un.org)
- Global Sustainable Development Report 2023: Global Sustainable Development Report (GSDR) 2023 | Department of Economic and Social Affairs (un.org)
- Progress on SDG 1 UNDESA Goal 1 | Department of Economic and Social Affairs (un.org)
- Progress on SDG 10 UNDESA Goal 10 | Department of Economic and Social Affairs (un.org)
- International Monetary Fund World Economic Outlook (April 2020) https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/ADVEC/WEOWORLD/OEMDC
- The World Bank https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS
- Sustainable Energy for All (SE4ALL) database from the SE4ALL http://data.worldbank.org/data-catalog/world-development-indicators
- EMDAT (2020): OFDA/CRED International Disaster Database, Université catholique de Louvain – Brussels – Belgium http://www.emdat.be/
- The 2030 Agenda file:///C:/Users/karina.larsen/Downloads/The%20World%202030%20%20Denmarks%20strategy%20for%20development%20cooperation%20and%20humanitarian%20action%20(2).pdf
- The Impact of Technologies https://www.un.org/en/un75/impact-digital-technologies
- 2019 SDG Report https://www.un.org/sustainabledevelopment/progress-report/

- United Nations Statistics Division https://unstats.un.org/sdgs/indicators/database/
- World Bank Country and lending Groups https://datahelpdesk.worldbank.org/knowledgebase/articles/906519
- World Bank 2021: When poverty meets climate change: A critical challenge that demands cross-cutting solutions (worldbank.org)
- World Economic Outlook, April 2020: The Great Lockdown https://www.imf.org/en/Publications/WEO
- UN Issue Brief: Inequality – Bridging the Divide https://www.un.org/en/un75/inequality-bridging-divide
- UN DESA Thematic Report on Finance-060824.pdf (un.org)
- Corruption Perception Index 2019: https://images.transparencycdn.org/images/2019_CPI_Report_EN_200331_141425.pdf

3. Fragility, Conflict and Resilience

The number of world's population living in fragile and conflict affected countries is increasing due to a combination of factors, including threats posed by climate change. Programme activities that include a focus on gender equality, youth educational and employment generation and private sector development together with the primary climate change focus have the ability to contribute to increased resilience in countries.

In 2030, it is expected that 60% of the world's poor people will live in fragile and conflict-affected countries. Although wars between countries have been declining, violence within states is on

the increase. Over the last two decades, civil conflicts have more than doubled, increasing from 30 in 2001 to 70 in 2016. Such conflicts are concentrated in poor countries with a toxic combination of fragile institutions, inequality, discrimination, and social conflict. These factors, together with others such as the intensity of natural disasters, food crises, increasing threats posed by climate change, terrorism, and record numbers of displaced persons, are shaping a new international landscape. These challenges can place developing countries' hard-won development progress under pressure.

Though conflict and fragile countries are those in most need of climate financing and technology transfer, these countries also have the most limited ability to access climate funding. CTCN small grants can be first step to identify technology needs and funding opportunities for implementation.

Key drivers of conflict and fragility:

Major causes of conflict and instability include political, economic, and social inequalities; extreme poverty; economic stagnation; poor government services; high unemployment; environmental degradation; and individual (economic) incentives to fight. Inequitable and non-transparent distribution of economic benefits, such as revenue from extractive industries, can also fuel conflict. Furthermore, -related change can be an influencing factor that can lead to or exacerbate conflict. Reduced access to water and extreme weather events may increase local competition over resources or simply negatively affect food security and undermine the livelihoods of vulnerable households and communities. This can lead to conflict between different user groups, e.g. farmers and pastoralists. In the longer-term, it can also impost a risk of competition over resources between countries, e.g. over water resources in large river basins. New technologies can be a solution but also introduce new values to certain natural resources.

Factors which improve resilience and stability: To reduce the likelihood of conflict, it is essential to promote inclusive development; reduce inequalities between groups; protect natural resources, tackle unemployment; and, via national and international control over illicit trade, reduce private incentives for conflict. Gender equality also plays a prominent role in ensuring stability, as empirical data shows:

Gender equality is the best indicator for ensuring peace, over and above other parameters such as the country's level of democracy, wealth or religious or ethnic composition. When women participate actively in the peace process, peace is more sustainable. There is a positive correlation between the influencing capacity of women in peace agreements and the probability that such agreements will be reached and implemented.

How conflict and fragility affect inclusive private sector development and women and youth:

In countries plagued by violence and conflict, security risks and instability as well as lack of infrastructure, access to finance, and workforce skills can stunt private sector-led growth and job creation. Fragile and conflict-affected countries on average exhibit lower economic growth and higher rates of people in extreme poverty. Their economies are more concentrated in extractive industries and agriculture with high shares of informal employment. Many jobs are informal, typified by subsistence farming, family hiring, and self-employment in micro and small enterprises in urban areas. To overcome these challenges to inclusive growth and jobs requires strategies and interventions that sequence and prioritize support for private sector development. For example, human capital and infrastructure development, especially in the areas of electricity, transport, and water, are areas with strong linkages to private sector development. Fragile countries often face difficulties to attract private investment and to deploy new climate-relevant technologies due to higher up-front investment costs.

Gender inequality, conflict and fragility are key challenges to sustainable development, and they are inextricably linked: women's active participation in conflict resolution contributes to peace and resilience, while unequal gender relations can drive conflict and violence. In terms of the impacts of conflict, women and youth are disproportionately affected. They are actively targeted as a tactic of war to humiliate, terrorize, punish, or forcibly displace them. Women and girls are also disproportionately exposed to sexual violence during conflict. And, as more men die, more women and families are left destitute.

In fragile contexts, fundamental human needs continue to go unsatisfied. Young women are unsafe and exploited, children are malnourished and not able to attend school, and communities are divided and insecure. A major factor contributing to young people's vulnerability is also unemployment. In the absence of thriving businesses and decent jobs, young men and women are forced to work for

poverty wages. Vulnerable youth are more likely to be susceptible to violence, and to increase instability and irregular migration if the millions of young people entering the labour market every year cannot see a future for themselves.

4. Human rights, Gender, Youth and applying a Human Rights Based Approach

Briefly summarise the key conclusions and implications for the programme of the analysis of the below points:

Climate change and efforts to address it have the potential to affect women, men, and youth in different ways. For example, entrenched and systemic discrimination can make some women and girls more vulnerable to climate change with respect to health, food security, livelihoods and human mobility, while excluding women and youth from climate action makes it less effective and can further exacerbate climate harms. Women also tend to less targeted by technology transfer and other public-private investments.

By encouraging implementation with adherence to human rights principles of participation, accountability, non-discrimination, and transparency, and supporting the meaningful and informed participation of women and youth in relevant decision-making processes and activities, the programme will ensure more inclusive, effective and impactful climate change and sustainable development outcomes.

Human Right Standards (international, regional, and national legislation)

In the context of climate change, the Paris Agreement is the overarching global framework that outlines the climate change goals and obligations of member countries. Concluded at COP21 (2015), the Paris Agreement is the first international environmental agreement to refer specifically to human rights. Although the Paris Agreement is not a human rights treaty in the typical sense, it does help to mainstream human rights norms into the implementation of, and support for, global climate change actions. In addition, many multilateral climate finance mechanisms now incorporate social and environmental policies, safeguards, and monitoring systems to ensure better adherence to human rights responsibilities. However, many governments still need to strengthen their commitment and integration of human rights into climate change efforts at the national level.

Climate change presents one of the greatest threats to human rights, posing a serious risk to the fundamental rights to life, health, water and sanitation, food, and an adequate standard of living of individuals across the world.
An emphasis on both mitigation outcomes (in order to limit climate change) and adaptation outcomes (in order to create more resilient, stable societies in the face of climate change) should be prioritised for the programme.

Specifically, a focus should be made on technology support and strengthened climate change policies, planning frameworks and information development.

Identify key rights holders in the programme

Developing country citizens and the civil society organizations that represent them are the key rights holders. All CTCN technical assistance and capacity building programmes are demand-driven and implemented across more tha 100 countries. Thus, it will include many different rights holders in the countries. From urban to rural populations. From farmers to user of low-carbon urban public transportation.

CTCN has representative from youth, gender and indigenous peoples representative bodies.

Identify key duty bearers in the programme

Developing country governments, bilateral and multilateral donors, selected UN agencies, selected technology assistance providers are considered to be the duty bearers. Main duty bearers will be the NDE's and the national Steering Committees in each country.

Human Rights Principles (PANT)

Participation

Women, youth and indigenous peoples are among groups that often face difficulties of being included in consultation processes. Thus, the CTCN Advisory Board has specific representation for these three groups. However, it is a barrier in many countries to ensure gender mainstreaming in many of the TA which has been identified as a priority.

- **List key support elements included to promote participation and inclusion.**

Gender considerations are among the scoring criteria for technical assistance request prioritization. Coalition representatives of various constituencies (gender, indigenous, youth) are invited to participate in advisory board, informational and planning meetings. Efforts are made to generate visibility for knowledge and technology contributions of these aforementioned constituencies. Technology information and learning is available online, in multiple languages, and without cost. Participating developing country governments are encouraged to organize public consultation processes as part of the programme's technology-related policy and regulatory development interventions.

Accountability

- **Identify accountability mechanisms in the relevant area – both horizontal and vertical.**

Horizontal: The programme is accountable to three United Nations organizations, the UN Environment Programme, the UN Industrial Development organization, and the UN Framework Convention on Climate Change.
Vertical: The programme is accountable to the UNFCCC Conference of Parties as well an advisory board comprised of national representatives from the global South and North, as well as representatives of multilateral institutions

and various constituency groups (incl. civil society, research organizations, & the private sector). Additionally, advisory board meetings are open to observers including gender, youth and indigenous constituencies, and meetings and documents are publicly accessible. National focal points based in national government or institutions hold the programme accountable for performance within each country. Bilateral and multilateral donors supporting the programme also monitor its financial and operational activities and outcomes.

- **List any key support elements included to promote accountability**

Surveys of national focal points and implementers are conducted, and their information disseminated. Capacity building is also regularly provided to national focal points, and guidance tools are provided to implementers.

Non-discrimination

- **Identify groups among rights-holders excluded from access and influence in the thematic programme areas identified.**

Technical assistance and capacity building services will be available to all institutions representing rights-holders, including academic centres, civil society, municipal governments, as well as private and public sectors. In addition, knowledge sharing services will be available to all interested individuals. Additionally, the programme will engage directly with coalitions representing groups at risk of marginalisation, including gender, indigenous populations, and youth constituencies. The monitoring and evaluation system will also include gender-differentiated indicators.

The programme is guided by the provision on human rights laid out in the Paris Agreement, the programme's institutional human rights infrastructure, and a gender policy and action plan specific to the programme. Additionally, implementers are required to provide disaggregated data. Online information is available in multiple languages. Finally, capacity building on inclusion of gender considerations has been conducted internally, for the advisory board, and for national focal points and gender mainstreaming tools and guidelines have been developed for processes such as technical assistance and Technology Needs Assessments.

- **Are disaggregated data available on most vulnerable groups?**

The programme will include gender-disaggregated data.

Transparency

- **Assess the extent to which information is accessible to rights holders including marginalised groups.**

The proposed programme will provide climate change technology information and learning opportunities via an online platform. Communication will also be provided directly to organizations representing potentially marginalised groups such as Gender and Women, Youth, and Indigenous Communities.

- **If relevant, ensure that information is available in other than official languages.**

The online platform of the proposed programme is available in the UN languages. In addition, requests for technical assistance can be made in a country's national language. National focal points will convey information to their country's stakeholders in their national languages.

- **List key support elements included to promote Transparency.**

All technical assistance documentation, donor information, and results & financial reporting will be accessible online. National focal points provide information to stakeholder groups in their countries via means of communication appropriate to national context, through events, and in national languages. Information will also be provided directly to organizations representing potentially marginalised groups such as Gender and Women, Youth, and Indigenous Communities so that it can be further disseminated.

Gender

- **Identify key challenges and opportunities for gender equality.**

<u>Challenges:</u>

Gender equality in the context of climate change:

The degree to which people are affected by climate change impacts is largely a function of their social status, gender, poverty, power, and access to and control over resources. Despite the international community's increasing acknowledgement of the varied experiences and skills women and men bring to development and environmental sustainability efforts, women still tend to have less economic, political and legal power and are hence less able to cope with—and are more exposed to—the adverse effects of the changing climate. Only 33% of all submitted Nationally Determined Contributions explicitly integrate a gender dimension. Other national technology planning documents have also traditionally failed to acknowledge gender. Women have less access to climate technologies due to patriarchal rules, societal limitations or limited financial resources. Women are also underrepresented in environment, energy, planning and science ministries where men account for 97% and women only 3%.

Women commonly face higher risks and greater burdens from the impacts of climate change inequality. For example, women and children are 14 times more likely to die than men from natural disasters. Unequal access to information or mobility results in much higher death rates for women.

Women forced to migrate due to climate change are exposed to higher risks of gender-based violence and trafficking. But when left behind, women bear a heavier burden of work and responsibilities.

Gender equality in the context of technology:

Technology is a key tool to addressing climate change mitigation and adaptation around the world. Women are not a special interest group in climate technology transfer projects. They are often the mainstream users and producers. However, technology itself is not gender neutral and entails biases that can occur when the conditions of a given target group (men, women, youth, or other specific groups) are not adequately considered. In these cases, new technologies and interventions can unintentionally create greater inequalites and work burdens. There are a number of interrelated factors which hinder the appropriate development or adaptation of technologies for use by women; and/or limit women's access to relevant technologies and related financing and learning opportunities.

These factors include:

- **Socialisation and gender stereotypes:** Household responsibilities can prevent women from participating in trainings or technology demonstrations. Lack of information can also mean they are not even aware of the services or trainings available. Lack of mobility and restrictions in permitted social interactions can similarly pose challenges for women's participation. Gender norms can also affect the prevailing views of men and women's specific abilities. E.g. girls receive less encouragement to pursue technology-related interests and the STEM field. While the energy workforce is comprised of only 22% women, the perception of gender norms is seen as the most important barrier to entry into this sector.

- **Power relations:** A lack of gender balance in decision-making roles related to technology selection and access impacts which technologies are selected, how resources are allocated, and which stakeholder groups are supported with technology transfer and training. This often leads to over-looking of the needs of those not

represented in the decision-making process. For example, in 2014 more than 140 countries had renewable energy targets and support policies in place, but almost all of these were for the power sector. With this trend, 2.3 billion people will still lack access to clean cooking facilities in 2030.

- **Distribution of resources and women's access to finance:** Women often face greater barriers to accessing finance and have fewer rights to family resources, such as land.

- **Institutional barriers:** Scarcity of female government officials, extension agents and trainers hampers women's access to information, resources and technology provided by external institutions. Formal communications from government officials are sometimes unconsciously gender biased. For instance, letters and invitations to meetings can be addressed to the head of the household who is usually male.

- **Access to knowledge and training:** Research demonstrates that gender stereotypes and traditional beliefs about men and women's roles in society can affect the selection of candidates targeted for technology transfer and training. Men are normally selected for training related to agricultural topics such as technology support for livestock production, while training on processing or household activities generally targets women.

Opportunities:

The growing recognition of the disproportionate impact of climate change on women and girls has been matched in recent years by the rising awareness of their roles as change agents and the tremendous value of gender equality and women's empowerment for producing social, economic, and climate resilience benefits.

There is an opportunity to ensure that both climate change and technology interventions achieve greater and more sustainable impact by involving a more diverse group of stakeholders in decision making and implementation stages. For example, research has demonstrated that more diverse and inclusive efforts made by diverse groups result in better decision making 87% of the time while driving decision-making two times faster. Decisions made and executed by diverse teams delivered 60% better results. Harnessing the capacities of women and other marginalized groups can be a powerful instrument to implementing climate change goals.

At the same time, by involving women more in climate technology decision making and implementation, women can gain a greater voice in determining priorities and methods for climate change action, including disaster risk reduction where women and children have been particularly vulnerable. By incorporating gender mainstreaming in climate change programme implementation and finance, women can also gain greater opportunities for education, entrepreneurship, and economic empowerment.

This represents a tremendous opportunity to leverage development co-benefits between gender equality and climate action.

- **Identify assessments on gender, such as CEDAW-reporting, SDG National Action Plans, UPR, and other relevant gender analysis.**

See Section 1. Overall development challenges, opportunities, and risks: Status and progress in relation to SDGs.

- **Identify opportunities/constraints for addressing gender equality issues.**

Opportunities: The UNFCCC Paris Agreement formally recognized the intersection of climate change and gender equality, empowerment of women, and realization of their rights. Now there is an opportunity to ensure the incorporation of gender equality and women's empowerment strategies in climate change responses at the local and national levels. In order to do so, there is a need to strengthen institutional capacity to better understand and be able to integrate gender considerations. The programme can both build capacity and play a normative role in terms of gender mainstreaming in climate change technology initiatives.

Constraints: Constraints in terms of addressing gender equality at the national level include prevailing social norms and institutionalized discrimination, together with a lack of capacity in terms of gender mainstreaming practices in the context of climate change and technologies.

- **Describe key strategic interventions to promote gender equality within each thematic programme.**

The programme is steered by the gender guidance of the Paris Agreement, the Technology Framework, and programme's own Gender Policy and Action Plan. The Action plan provides for example, instructions on rating technical assistance requests according to gender considerations; and gender mainstreaming tools and guidelines for implementers. Guidelines explain the importance of conducting gender analysis during background assessments; supporting gender considerations during stakeholder consultations; and including gender-differentiated indicators in monitoring and evaluation activities. An example of gender mainstreaming support to national processes includes the development of the publication "Guidance for a gender-responsive Technology Needs Assessments":

The programme will communicate and collaborate with the UNFCCC Women and Gender Constituency, representing a global coalition of organizations engaged in gender and climate change issues. The programme will also provide networking opportunities and capacity building on upscaling to innovative climate change solution providers who incorporate meaningful gender considerations in their initiatives. Internal capacity building will continue to be conducted, including for the advisory board, staff, national focal points, and implementers. Efforts will be made to raise public awareness of the important relationship between gender, technology and climate change including through events, trainings, and the online information portal.

Youth

- **Identify key challenges and opportunities for engagement of youth following the principle of programming not only for, but also with youth.**

Challenges:
The world's population is young: 42 percent of people are under the age of 25. In South Asia and Sub-Saharan Africa, the number of people aged 12-24 has steadily risen to 525 million in 2015 – almost half the global youth population. At the same time, young people represent almost 40 percent of the unemployed people in the world.

Young people are also the cohort which will be most affected by climate change in the future, but they often feel left out of climate change decision making in their countries, and feel uncertain about how to best play a positive role in climate change action. According to a World Economic Forum survey with more than 30,000 respondents under age 30 from 186 countries, 84% of youth claim they lack access to information to prevent climate change.

Opportunities:
Young people care about climate change – Young people represent a huge resource as agents of change in the climate change effort, as advocates, entrepreneurs, and active citizens. Youth are demonstrating an increasingly strong social and environmental awareness, which has the power to shift our societies toward a low-carbon and climate resilient future. Surveys show that young people consistently think climate change and the destruction of nature is THE most critical issue the world faces.

They're also optimistic about technology – Technological advances in recent years have sparked concerns within wider society about technology's impact on job displacement and competitiveness. At the same time, 78,6% of youth respondents indicated that they believe that technology is "creating" as opposed to "destroying" jobs.

This creates an opportunity to engage and inform young people on the issue of climate change action, and in particular on the roles of technology and innovation as a vital means to both addressing climate change and creating "green" job growth.

- **Identify opportunities/constraints for addressing youth issues.**

Opportunities: There is a growing awareness of the global trend of youth's climate change concerns and their potential capacity to affect positive change, and this is being reflected in international agreements and programme planning. For example, the Paris Agreement acknowledges the need to "respect, promote and consider respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity, […]". Young people now have a recognized constituency within the climate negotiations and are engaging at the national level as well to demand progress on climate change efforts.

Constraints:

Many youths are still being denied an ability to gain "a seat at the table" in national and local discussions on climate change priorities, planning, and implementation. Likewise, young people face difficulties in accessing relevant learning opportunities and information on climate change methods, tools, technologies, and financing which can support youth entrepreneurs, innovators, advocates, and others willing to support and lead climate action.

- **Describe key strategic interventions to promote youth within each thematic programme.**

The programme will collaborate with the UNFCCC Youth Constituency, academic and innovation centres to build joint work programmes. Cooperation will focus on highlighting the role that youth play in climate change action and technology innovation, providing young people with a platform for making their concerns and priorities known, and accessing technology services and information.

List the key documentation and sources used for the analysis:

- UNEP, 2011, http://bit.ly/1Niu2q7
- UNEP, GlobeScan Survey, 2008, http://bit.ly/1CtR3zZ
- United Nations Joint Framework Initiative on Children, Youth and Climate Change, 2010, http://bit.ly/1FBQsfy]
- Climate Change and Human Rights, UNEP https://wedocs.unep.org/bitstream/handle/20.500.11822/9530/-Climate_Change_and_Human_Rightshuman-rights-climate-change.pdf.pdf?sequence=2&amp%3BisAllowed=

- UNDP, Overview of Gender and Climate Change, http: http://www.undp.org/content/dam/undp/library/gender/Gender%20and%20Environment/PB1-AP-Overview-Gender-and-climate-change.pdf
- World Economic Forum https://www.weforum.org/agenda/2017/08/global-shapers-survey-2017-5-things-we-learned/
- Food and Agricultural Organization http://www.fao.org/3/ae538e/ae538e06.htm#TopOfPage,
- http://www.fao.org/3/ae538e/ae538e07.htm#TopOfPage,
- http://www.fao.org/3/i9047en/I9047EN.pdf
- UNEP Global Gender and Environmetnal Outlook, 2016
- Hacking Diversity with Inclusive Decision Making, Cloverpop, 2017
- UN Women, Women in Polictics 2017 Map
- **The Paris Agreement As a Human Rights Treaty https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3192106**
- International and regional human rights and HRBA principles and HRBA Guidance Note of 2013
- Danish Institute of Human Rights (DIHR) Guide to understand the interlinkages between human rights and the SDGs (http://sdg.humanrights.dk)

- Danish Institute of Human Rights (DIHR) Guide to understand the interlinkages between human rights and the SDGs (http://sdg.humanrights.dk)

Are additional studies / analytic work needed? How and when will it be done?

List additional studies that will be carried out as part of the preparation phase, including studies that will be carried out jointly with others or by partners / other donors.

5. Migration

- **Issues and concerns of relevance to Danish interest in the area of security and migration.**

Humanitarian efforts should be accompanied by more long-term development cooperation, and prioritise efforts to improve children's education during protracted conflicts. Efforts to stem the rise of radicalisation and violent extremism in fragile states is also a priority. The Danish government also engages the private sector, encourages job creation and sustainable growth in developing countries.

- **Identify where Denmark has comparative advantages that may lead to more effective and efficient programming and better results including where Denmark may contribute with deployment of specific expertise and capacities.**

In the context of fragility, conflict, migration and resilience, Denmark maintains competitive advantages in the areas of gender equality, climate change, support for youth and private sector enagagement. Denmark is also among the world's leading humanitarian donors on a per capita basis.

- **Considerations regarding the humanitarian situation, migration, refugee and displacement issues, including the need to integrate humanitarian-development linkages and long term strategies;**

Drivers of migration include economic, demographic factors and environmental factors, and social and political dynamics. People may migrate to access better economic, employment and educational opportunities. Some migrate due to lack of access to fundamental human rights such as health, food or basic education, and due to discrimination, poverty or separation from family. They may move in response to crisis (both natural and human-made) and, increasingly, in response to environmental change.

Economic opportunities, demographics, poverty, and food insecurity are prime influencers in the migration decision-making process and interact to a greater or lesser degree to drive migration. A large number of countries identified as 'climate vulnerable' tend to experience high rates of emigration as well, so it is critical to consider existing environment and climate-related evidence when analyzing current migration patterns and estimating future flows. For example, in Africa, droughts and floods have led to increased reliance on migration as an adaptation measure. Over the past 20 years more than 10 million people in the region have been displaced due to environmental degradation and desertification.

- **Relevant issues and considerations related to radicalisation and violent extremism and the potential for Danish engagement to prevent and counter violent extremism (P/CVE)**

According to the UN, disarming the process of radicalization must begin with human rights and the rule of law, with dialogue across all boundary lines, by empowering all young women and men, and by starting as early as possible. Two interlinked challenges must be addressed in the process: 1) the rise of violent extremism, using a development and peacebuilding approach firmly grounded within human rights principles, and 2) the need to govern increasingly diverse and multi-cultural societies, which requires attention to institutions, political and religious ideologies and people and promotion of human rights-based approaches. Efforts at preventing violent extremism are ultimately about strengthening cohesion in society as well as helping local actors reinforce their resilience to conflict and division. Priorities for engagement include:

1) education, skills development and employment facilitation
2) empowerment of youth
3) strategic communications, the Internet and social media; and
4) gender equality and empowering women.

List the key documentation and sources used for the analysis:

- The World 2030 Denmark's strategy for development cooperation and humanitarian action
- Root causes of violent conflict in developing countries https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1122271/
- The private sector in fragile and conflict-affected states, World Bank Group https://ieg.worldbankgroup.org/ieg-insights-private-sector-fragile-and-conflict-affected-states
- Hudson (2012). What Sex Means for World Peace
- Bowen, Hudson, Nielsen (2015). State Fragility and Structural Gender Inequality in Family Law: An Empirical Investigation.
- 8 Krause, J. Krause, W & Bränfors, P. (2018). Women's Participation in Peace Negotiations and the Durability of Peace 19 Paffenholz et al. (2016). Making Women Count
- Preventing Violent Extremism, UNESCO
- United Nations Joint Framework Initiative on Children, Youth and Climate Change, 2010, http://bit.ly/1FBQsfy
- A. Geddes, W. Neil Adger, N. W. Arnell, R. Black, and D. SG Thomas, 'Migration, environmental change, and the 'challenges of governance', Environment and Planning C: Government and Policy 30, no. 6 (2012), pp. 951-967
- 9 Emily Wilkinson, Lisa Schipper, Catherine Simonet, and Zaneta Kubik, 'Climate change, migration and the 2030 Agenda for Sustainable Development' (Overseas Development Institute: London, 2016); V20 Ministerial Communiqué 2nd Ministerial Dialogue of the Vulnerable Twenty (V20) Group (14 April 2016 – Washington)
- DAC International Network on Conflict and Fragility (INCAF): http://www.oecd.org/dac/governance-peace/conflictfragilityandresilience/
- World Bank - Fragility, Conflict and Violence: http://www.worldbank.org/en/topic/fragilityconflictviolence

Are additional studies / analytic work needed? How and when will it be done?

List additional studies that will be carried out as part of the preparation phase, including studies that will be carried out jointly with others or by partners / other donors.

6. Inclusive sustainable growth, climate change and environment

-

Briefly summarise the key conclusions and implications for the programme of the analysis of the below points:

The interlinkages between climate change and sustainable development are strong. The programme's aim is to support developing countries to implement their Nationally Determined Contributions and other key climate change planning documents in order to meet global goals for low-carbon, climate resilient economies and sustainable development.

- **Assess the overall risks and challenges to inclusive sustainable growth and development from the impact of climate change and environmental degradation**

Climate change is expected to impact the availability of basic necessities like freshwater, food security, and energy, while efforts to both mitigate and adapt to climate change will similarly inform and shape the global development agenda. Poor and developing countries, particularly least developed countries, will be among those most adversely affected and least able to cope with the anticipated shocks of climate change to their social, economic, and natural systems.
Efforts to model the impact of climate change on sustainable growth indicate that:
1) Changes in crop yields and labour productivity are projected to face the largest negative consequences.
2) Damages from seal level rise also gradually become more important, growing most rapidly after the middle of the century.
3) Net economic consequences are projected be negative in 23 of 25 regions/sub-regions modelled. They are especially large in Africa and Asia.
4) The actual magnitude of the regional damages will depend in part on the ability of economies to adapt to climate impacts by changing production technologies, consumption patterns and international trade patterns.
In terms of sustainable development, climate change is more than just one of the 17 SDGs. It is considered a threat multiplier with the potential to worsen some of humanity's greatest challenges, including health, poverty, equality, and hunger.

- **Assess the status of policies and strategies in the country / thematic area / organisation to ensure that development is inclusive and sustainable, avoid harmful environmental and social impacts and respond to climate change**

The climate change work is undertaken in the context of supporting the implementation of the Paris Agreement and its Technology Framework, and overseen by the Conference of Parties.

- **Assess the political will and the institutional and human capacity to implement these policies and strategies**

In December 2015, the Conference of the Parties adopted the Paris Agreement, a universal agreement which aims to keep a global temperature rise for this century well below 2 degrees Celsius, with the goal of driving efforts to limit the temperature rise to 1.5 degrees Celsius above pre-industrial levels.

This is complemented by the 2030 Agenda for Sustainable Development, which conveys the commitment of countries to protect the planet from degradation and take urgent action on climate change. Both frameworks outline the need for integration of climate change measure into national policies, the improviement of education, and insitutional capacity development on climate change mitigation and adaptation.

- **Identify opportunities for mainstreaming support to inclusive green growth and transformation to a low-carbon and climate resilient economies in the programme thematic areas and DEDs.**

Support for and cooperation on climate action are central to achieving mitigation and adaptation objectives and increasing ambition as countries face more and more political, technical, socioeconomic and other barriers. The programme's aim is to support developing countries to implement their Nationally Determined Contributions and other key climate change planning documents in order to meet global goals for low-carbon, climate resilient

economies and sustainable development. It will do so by providing technical assistance and capacity building in response to developing country requests for technology and enabling environment support, including

- Innovation support and facilitating netwroking for collaborative R&D
- Development of decision-making tools and relevant information/data
- Technology identification and prioritization
- Feasibility of technology options & technology adaptation
- Sectoral roadmaps and strategies for NDC implementation
- Policy and regulatory guidance to create enabling environments
- Piloting and deployment of technologies
- Private sector engagement and market creation, and
- De-risking, upscaling, and financing.

- **Identify potential risk and negative impacts related to environment and climate change from the proposed thematic areas and DEDs and consider how these may be mitigated in the design of the programme and the relevant DEDs.**

The programme's main objective is to assist developing countries to adapt to climate change and transition to a low carbon economy. Potential negative impacts to environment and climate change are therefore deemed to be limited. However, all technology interventions will be reviewed by the implementing secretariat, monitored during implementation, and evaluated upon completion.

- **Identify if EIA (Environmental impact assessment) or similar should be carried, including legal requirements in partner countries / organisations.**

This is not applicable given the nature and focus of the programme.

- **Consider rights and access to key natural resources: land, water, energy, food, and agriculture, including impacts on employment for youth, women, and indigenous peoples, etc.**

The issues of rights and access to key natural resources figure into many types of climate change work and intended outcomes and will be taken into consideration where relevant in the design and implementation of technical assistance and capacity building interventions.

List the key documentation and sources used for the analysis:

- European Commission https://ec.europa.eu/clima/citizens/benefits_en
- Schletz, M. C., Konrad, S., Staun, F., & Desgain, D. D. R. (2017). Taking stock of the (I)NDCs of developing countries: regional (I)NDC coverage of mitigation sectors and measures. United Nations Environment Programme, Nairobi

- The Economic Consequences of Climate Change, OECD https://espas.secure.europarl.europa.eu/orbis/sites/default/files/generated/document/en/OECD%20Climate%20Change.pdf
- UN Sustainable Development Progress Report, 2019 https://www.un.org/sustainabledevelopment/progress-report/
- Climate action and support trends (UNFCCC) https://unfccc.int/sites/default/files/resource/Climate_Action_Support_Trends_2019.pdf
- UN High-level Political Forum on Sustainable Development 2019

If this initial assessment shows that further work will be needed during the formulation phase, please list how and when will it be done?

List additional studies that will be carried out as part of the preparation phase, including studies that will be carried out jointly with others or by partners / other donors.

List required EIAs or similar studies to be carried during the formulation or implementation face.

7. Capacity of public sector, public financial management and corruption

Briefly summarise the key conclusions and implications for the programme of the analysis of the below points:

The capacity of the public sector to plan and implement national climate change goals and commitments varies widely across developing countries but is a crucial factor in promoting and facilitating climate change action at the national and local level. The programme will provide support to developing countries to build institutional capacity to identify technology priorities, strengthen enabling environments, make informed decisions, and provide economic incentives in order to transition to a low-carbon and more climate resilient society.

- **Capacity of the public sector for policy making, enforcement and service delivery.**

The capacity of the public sector to plan and implement according to national climate change goals and commitments varies widely across developing countries. Policymakers in developing countries face the challenge of balancing current priorities together with the potential impacts of climate change and the outcomes of the strategies proposed to respond to them. Besides implementing a series of mitigation, adaptation, and development measures themselves, governments play a key role in building required enabling environments to facilitate national and regional technical and technological innovation. Reduced vulnerability, sustainable development, and adaptation processes can be promoted by setting an equitable and fair regulatory framework, supporting development and sustainable natural resource management, and creating economic opportunities through access to markets,

economic incentives, and other key assets. The public sector may lack access to relevant information, data, and best practice examples, as well as the requisite skillset and experience in attempting carrying out these actions.

- **Quality and capacity of PFM, including budget credibility, comprehensiveness, and transparency as well as control and external scrutiny / audit in all phases of the budget process as well as participation of citizens / CSOs in monitoring public budgets and corruption**

As the programme focuses on delivering technical assistance and is not a funding mechanism, the programme model ensures that implementers are contracted directly to provide services to developing country stakeholders (public sector, CSOs, private sector and academic/research institutions). Thus, no funds are received or managed by the public sector.

- **The corruption situation and relevant anti-corruption measures and reforms.**

In terms of corruption, the 2019 Corruption Perceptions Index shows more than two-thirds of countries, along with many of the world's most advanced economies, are stagnating or showing signs of backsliding in their anti-corruption efforts. Anti-corruption measures for this programme include the utilization of a transparent and competitive UN procurement system to contract service providers to implement requested technical assistance and capacity building in developing countries. Publicly accessible financial reporting on the programme's use of funds also contributes to transparency.

List the key documentation and sources used for the analysis:

- Corruption Perception Index 2019: https://images.transparencycdn.org/images/2019_CPI_Report_EN_200331_141425.pdf
- Bapna M., McGray H., Mock G., Withey L. 2009. Enabling Adaptation: Priorities for Supporting the Rural Poor in a Changing Climate. WRI Issue Brief. World Resources Institute (WRI). Washington DC.
- Courtney H., Kirkland J., Viguerie P. 2005. Strategy under Uncertainty. In: Strategy Despite Uncertainty: Cutting Through the Fog. Harvard Business Review 1746.
- Fankhauser S., Smith J., Tol R. 1999. Weathering climate change: some simple rules to guide adaptation decisions. Ecological Economics 30:67-78.
- Folke C. 2006. Resilience: The emergence of a perspective for social-ecological systems analyses. Global Environmental Change 16: 253-267.
- Prato T. 2008. Accounting for risk and uncertainty in determining preferred strategies for adapting to future climate change. Mitig Adapt Strat Glob Change 13:47-60

Are additional studies / analytic work needed? How and when will it be done?

List additional studies that will be carried out as part of the preparation phase, including studies that will be carried out jointly with others or by partners / other donors.

Annex 2: Partner Assessment

Since the establishment of the Technology Mechanism in 2010 (Decision 1/CP.16) and the official launch of CTCN as the implementation arm of the Technology Mechanism at COP19 in November 2013 (Decision 25/CP.19), CTCN has steadily enhanced its technical assistance/service portfolios and has responded to an increasing number of requests from developing countries for climate technology development and transfer. This evolution has been guided by COP decisions and mandates.

By the end of its second programme, CTCN had served 108 developing countries, facilitating access to over 390 mitigation and adaptation technologies in support of NDC implementation and Paris Agreement commitments. Further, learnings had informed the third PoW which among other things led to a more programmatic approach to organise the demand-driven TA and increase gender up-take in TA implementation while maintaining a relatively nimble and lean secretariat.

CTCN has become a stronger partner based on ten years of operational experience. The following is demonstrating some of the

- It has been able to build stronger partnerships and coordination with relevant institution such as TEC, GCF, GEF, Adaptation Fund. It has recognized that the up-take of the often early-stage technical assistances and analysis is depending on partnerships with other donors and agencies. This also include opening a new office in Songdo to enhance collaboration with GCF.

- It has launched the for the Technology Executive Committee (TEC) and CTCN Joint Work Programme for the Technology Mechanism (2023 –2027), signifying a paradigm shift towards enhanced cooperation.

- It has enhanced its focus on transformative change at the global level by introducing a more programmatic approach. While CTCN remains 'demand-driven', responsive to requests from National Designated Entities (NDEs) from developing countries, this new approach are structured around two key enablers of systemic change (national systems of innovation and digitalization) and five system transformation areas (water-energy-food nexus, buildings and infrastructure, sustainable mobility, energy systems, and business and industry)

- It has reach more than 840 members and aims to engage these members more proactively in the CTCN's work.

- CTCN has strengthened its to gender and youth mainstreaming by co-hosting the global Gender-Just Climate Solutions capacity building programme, operates Youth Climate Innovation Labs, and hosts the Technology Mechanism Gender and Climate Technology Expert Roster. Furthermore, 5% of funding is dedicated for gender mainstreaming.

A recent evaluation also demonstrates that CTCN as a partner to EU and other donors, including Denmark, could improve several areas to ensure a more efficient and result-oriented support to developing countries in achieving access to technology transfer. This include considering how (i) external driven processes can increase country ownership and the country's ability to maintain a relevant role in the planning and implementation of the technical assistance, (ii) strengthen more global transformative change, knowledge exchange and access easy-to-use technology catalogue, (iii)

further increase links and synergies to other financing mechanisms and donors to secure more uptake of the early-stage TA, (iv) strong gender focus, policies and guidelines needs to be transferred better into the implementation process of the TA., (v) CTCN should monitor more the post-implementation impact of the TA rather than just the anticipated impacts.

Name of Partner	Core business	Importance	Influence	Contribution	Capacity
	What is the main business, interest and goal of the partner?	*How important is the project/programme for the partner's activity-level (Low, medium high)?*	*How much influence does the partner have over the projectprogramme (low, medium, high)?*	*What will be the partner's main contribution?*	*What are the main issues emerging from the assessment of the partner's capacity?*
Climate Technology Centre & Network (CTCN)	Delivery of technical assistance, capacity building and knowledge sharing at the request of developing countries as they strive to meeting their climate change and sustainable development goals.	Medium. The CTCN has other bilateral as well as multilateral donors. However, Danish support will provide a stable multi-year planning opportunity and send a strong signal to other donors who may be considering renewing their support for the coming years.	Medium. The CTCN responds NDE's and all requests are aligned with NDC's. But TA interventions is demand-driven and not under control of CTCN. However, CTCN has introduced fiver overall cluster of transformation to ensure more global transformative impact.	Provide technical assistance, capacity building and knowledge sharing support to developing countries on relevant technologies, enabling environments and financial linkages.	Strength: Global adaptation and mitigation experience (including gender and youth engagement) and a strong and efficient model for identifying relevant technology experts to implement. Weaknesses: limited availability of funding to secure up-take of TA support and recommendations, Opportunities: Bridges climate technology implementation and negotiations as mechanism under the UNFCCC; and connect to

					UNFCCC financing mechanisms such GCF, GEF and Adaptation Fund. Threats: Insufficient climate funding available and high cost of credits for developing countries imposing a high barrier for technology transfers and private sector investments

1. Summary of stakeholder analysis

The analysis demonstrates that there are a wide range of stakeholders interested in or potentially affected by the program, and that most of these stand to benefit from the program's activities. The stakeholders who may be interested in or affected by the program include:

1. Developing country constituencies who could be potential direct beneficiaries of the program (academic, civil society, private sector, research, and public sector entities who may request assistance)
2. Women, men, and youth engaged in climate change work
3. National Designated Entities (nationally selected UNFCCC climate technology focal points, usually based in Ministries of Environment or Energy, who coordinate CTCN technical assistance requests in-country based upon national climate change priorities)
4. The public at large in developing countries who stand to be impacted by the program
5. Technology and capacity building providers who could be eligible to participate in the program activities as implementers
6. Other donors (incl. Canada, the EU Commission, Finland, Ireland, Italy, Japan, Norway, the Republic of Korea, Spain, Sweden, and Switzerland, the U.S.)
7. The Adaptation Fund
8. Green Climate Fund
9. UN Environment Programme (UNEP)
10. UN Framework Convention on Climate Change (UNFCCC)

For further information, please see Annex 1: Stakeholder Analysis.

2. Criteria for selecting program partners

The criteria utilized for selecting the partner was its adherence to the following:

Objectives:

1. Assist developing countries to adapt to climate change;
2. Assist developing countries with the transition to a low carbon economy; and
3. Prepare developing countries to implement their Nationally Determined Contributions

The specific impact that is targeted:

- Reduced greenhouse gas emissions
- Increased climate resilience specifically for vulnerable and marginalised groups

The following interventions:

- Strengthened national and community-level climate change policies, planning frameworks and information systems
- Scale up of climate-relevant technologies, infrastructure and markets

The following activities:

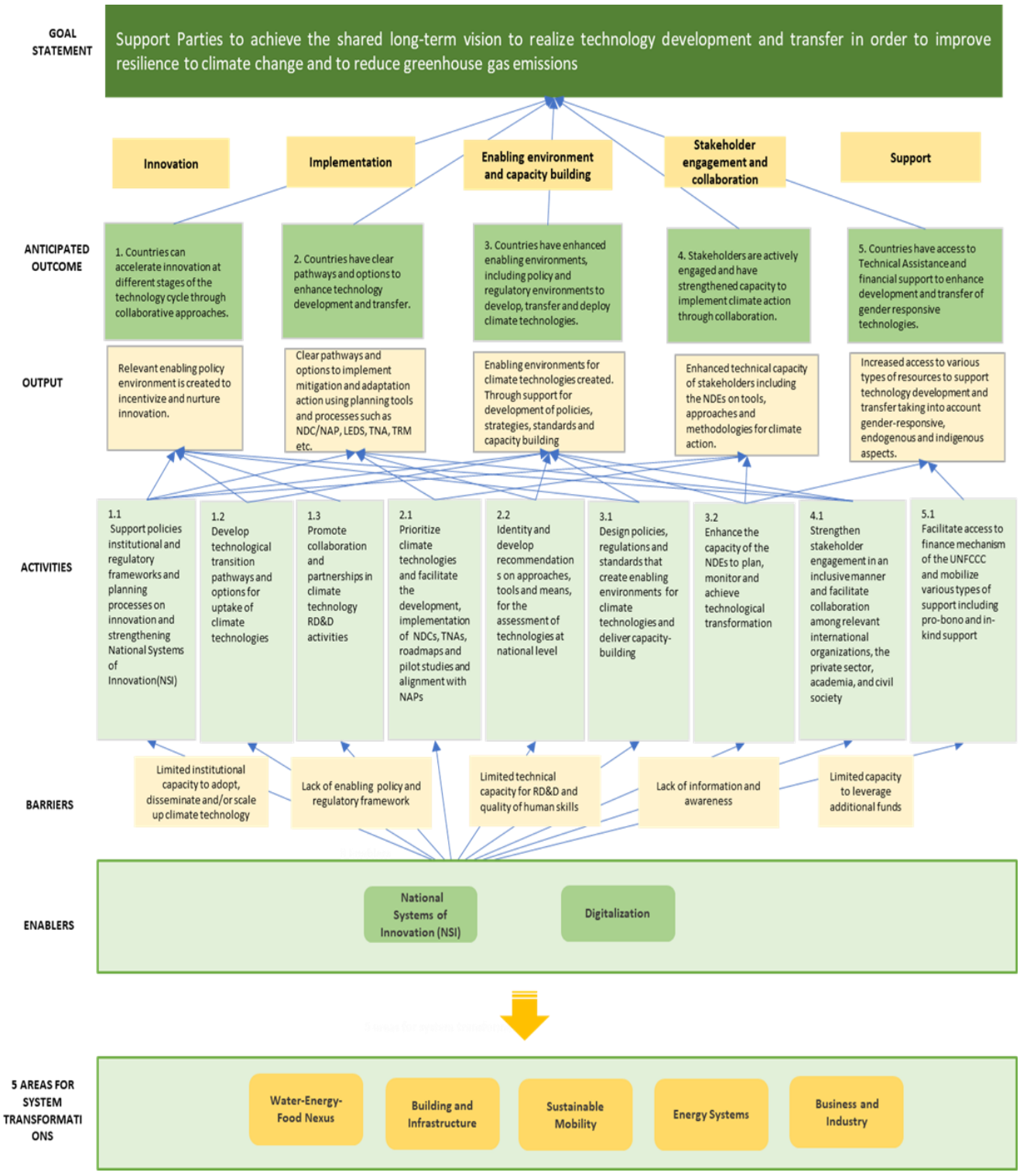
1. Supporting more effective policies and planning (in particular relating to the energy and water sectors)
2. Promoting climate solutions through more effective markets and investments, including
   - Promoting climate-friendly technologies and solutions as well as public and private investments through effective markets, and
   - Encouraging technologies R&D, innovation, and transfer (including south-south)
3. Building more robust international architecture, particularly
4. Promoting the implementation of the international climate agreement, in particular the nationally determined contributions, and
5. Supporting marginalized voices and ensuring accountability to most vulnerable

Funding principles:

- **Intervention logic**: The Climate Envelope activity/project must be aligned with the overall Theory of Change for the Climate Envelope.
- Alignment: Activities to be funded must be based on demand from recipient countries.
- **Balance between adaptation and mitigation:** The aim is to use half of the Climate Envelope funds for mitigation purposes and the other half for adaptation purposes.
- Activities will be identified with a view to follow-on as a new phase to an on-going or previously Danish funded activity and/or with an existing implementing agency
- **National strengths:** Where possible, Climate Envelope funds will be targeted interventions where Denmark can add value in terms of national strengths, competences or interests
- **Leverage:** Leverage of private finance and innovation are seen as important objectives of the Climate Envelope
- **Transformation:** Priority will be given to interventions where chances of achieving transformational change through accompanying changes in policy, markets or finance structures (both public and

private) are largest. Transformational change can be also be in the form of innovation and test of new approaches, changes in existing systems and structures (systemic change), changes in conception and values, changes which are irreversible and change which are based on a clear identification of entry points and opportunities and the presence of a clear vision for change. Increasing chances of achieving transformational change also involves scale in form of national, sectoral or economy wide programmes including policy and technology scale up as well as replicability in terms of programmes that others can copy and accelerate the roll out of.

Annex 3: Theory of Change and Results Framework



CTCN Results framework for PoW 2023-2027

The CTCN results framework is aligned with the Programme of Work (PoW) for 2023-2027 which has been developed in consultation with the CTCN advisory board and other stakeholders. During the 22nd Advisory Board meeting, the Board acknowledged the challenges associated with some issues related to implementing the Results Framework outlined in the CTCN's Programme of Work for 2023-2027. The Board approved a revised version of the Results Framework, which incorporates key performance indicators from the Programme of Work into the CTCN's existing monitoring and evaluation system. The below results framework reflects these adjustments.

The performance measurement framework presented to the Board[8], includes targets for 2023 and 2024 (noting that the reporting period for 2023 had not yet ended). The intention is for the same performance management framework to be applied throughout the Programme of Work period (2023-2027). For the purpose of this document, target figures for the entire five-year period have also been included.

CTCN updated performance measurement framework as presented at the CTCN's 22nd Advisory Board meeting

Actions & Activities (as per the POW)	**Updated Indicators**	**2023** (baseline)	**Targets** (For the PoW period 2023 – 2027)	**Means of Verification**
Impact indicators				
	Anticipated metric tons of CO2 equivalent (tCO2e) emissions reduced or avoided as a result of CTCN TA (disaggregated by annual and life of project)	No target*	No target*	TA Closure Report
	Anticipated number of direct and indirect beneficiaries as a result of the TA	No target*	No target*	TA Closure Report
Innovation				
Intended outcome (from POW): Countries can accelerate innovation at different stages of the technology cycle through collaborative approaches.				
1.1 Support policies, institutional and regulatory frameworks and planning	Number of countries that received. CTCN support for national institutional, legal and regulatory frameworks to encourage	8	Target set at 4-5 per year representing 20 – 25 over the PoW period	TA dashboard

[8] https://www.ctc-n.org/sites/default/files/AB2023.22.25_CTCN%20Annual%20Operationg%20Plan%20and%20Budget_UPDATED_27%20Sept.pdf

processes on innovation and strengthening National Systems of Innovation 1.2 Develop technological transition pathways and options for uptake of climate technologies	climate technology RD&D and uptake (PMF indicator # 1.2.a)			
	Number of countries with strengthened National System of Innovation as a result of CTCN support (PMF indicator # 1.2.b)	6	Target set at 5-7 per year representing 25 – 35 over the PoW period	TA Closure report
1.3 Promote collaboration and partnerships in climate technology RD&D activities	Number of climate technology RD&D and innovation-related events (PMF indicator # 1.1.a)	17	Target set at 5 per year representing 25 over the PoW period	Event reporting template
	Number of participants in climate technology RD&D and innovation-related events (gender-disaggregated) (PMF indicator # 1.1.b)	388 (70% male, 30 % female	Target set at 100-150 per year representing 500 – 750 over the PoW period	Event reporting template
	Number of knowledge resources related to RD&D and new and innovative technologies made available on the CTCN knowledge platform (PMF indicator # 1.1.c).	26	Target set at 25-30 per year representing 125 – 150 over the PoW period	KMS
Implementation				
Intended outcome (from PoW): Countries have clear pathways and options to enhance inclusive, gender responsive, technology development and transfer, including endogenous and indigenous technologies				
2.1 Prioritize climate technologies and facilitate the development and implementation of NDCs, including TNAs, roadmaps and pilot studies and alignment with NAPs	Number of TAs supported (disaggregated by TA and FTA, and TNA/TAP/NDC) (PMF indicator # 2.1.a)	25 (1 FTA; 24 TAs including 4 TNAs 127 TAs were in different phases of implementation in 2023: *25 TAs were completed * 53 TAs were in design stage * 10 in bidding stage * 39 under Implementation	Target set at 30 per year representing 150 over the PoW period	TA dashboard

	NDE feedback on uptake of CTCN TA and non-TA recommendations and outcomes to enhance technology development and transfer	Data available in Sept. 2024	No target	NDE survey
	Percentage of TA budget allocation targeting gender mainstreaming. (new)	Average of 3%	5 per cent of TA budget over the 5 year period	Response plan
	Percentage of TA projects supported with a gender analysis (PMF Indicator # 4.2.e).	72%	100%	TA Closure report
Enabling environment and capacity-building				
Intended outcome (from PoW): Countries have enhanced enabling environments, including policy and regulatory environments to develop, transfer and deploy climate technologies				
3.1 Design policies, regulations and standards that create enabling environments for climate technologies and deliver capacity-building	Number of policies, strategies, plans, laws, agreements or regulations supported by the technical assistance (PMF indicator # 4.2.a)	22	Target set at 10 per year representing 50 over the PoW period	TA Closure report
3.2 Enhance the capacity of the NDEs to plan, monitor and achieve technological transformation	Number of CTCN training sessions and capacity strengthening activities (PMF indicator # 4.2.b)	15	Target set at 10 per year representing 50 over the PoW period	Event reporting template
	Number of participants attending CTCN training sessions and capacity strengthening activities (disaggregated by gender) (PMF indicator # 4.1.d.)	1,163 (65% male; 35% female)	Target set at 1000 – 1500 per year representing 5000 – 7500 over the PoW period	Event reporting template
	Total number of events organized or co-organized by the CTCN (PMF indicator # 4.1.c.)	16	Target set at 15 per year representing 75 over the PoW period	Event reporting template
	Number of technology descriptions, publications, national plans, and other information resources made available on the CTCN knowledge platform (PMF indicator	~110	Target set at 100 per year representing 500 over the PoW period	KMS

	# 4.1.a)			
	Number of site visits to CTCN knowledge portal (indicator 4.1.e)	131% increase 235K views in the last 12 months. (April 2023 – April 2024) 171k views in Jan2023 – December 2023	10% increase annually	Google Analytics
	Number of people reached through CTCN social media channels (PMF indicator # 4.1.f)	Social Media followers increased by: 66.2% on LinkedIN (from 2646 followers to 3996 followers) 61.5% on Facebook (from 2287 to 3719 followers) 131.2% on Twitter – from 3757 to 4930 followers	10% increase annually	Google Analytics Media coverage Social media accounts
	Number of mentions of CTCN in media (PMF indicator # 4.1.g)	We are unable to provide specific figures at this time as we are still in the procurement process for the monitoring platform.	Target set at 30 per year representing 150 over the PoW period	Google Alerts Media coverage CTCN website
Collaboration and stakeholder engagement				
Intended outcome (from PoW): Stakeholders are actively engaged and have strengthened capacity to implement climate action through collaboration				
1.1 Promote collaboration and partnerships in climate technology RD&D activities	Number of partnership and twinning arrangements (new)	6- letters of intent signed	Target et at 5-10 per year representing 25 – 50 over the PoW period	TA and CB teams
1.1 Support policies, institutional and	Number of deliverables produced during the technical assistance)	293	Target set at 80 – 100 per year	TA Closure Report

regulatory frameworks and planning processes on innovation and strengthening National Systems of Innovation (NSI)	(PMF indicator # 3.1.a)		representing 400 – 500 over the PoW period	
4.1 Strengthen knowledge and engagement in an inclusive manner and facilitate collaboration among relevant international organizations, the private sector, academia, and civil society	Total number of members in the CTC Network (PMF indicator # 3.2.a)	4.9% increase compared to 2022	3-5% increase annually	KMS
	Number of collaborations with international organizations, private sector, academia, civil society organizations and Network members for the co-development of activities, including trainings, workshops, and knowledge products. (new)	46	Target set at 10-15 per year representing 50 – 75 over the PoW period	KMS Event reporting template
	Number of matchmaking events organized (new)	6	Target set at 3-5 per year representing 15 – 25 over the PoW period	KMS Event reporting template
Support				
Intended outcome (from PoW): Countries have access to Technical Assistance and financial support to enhance development and transfer of gender responsive technologies				
5.1 Facilitate access to Financial Mechanism of the UNFCCC and mobilize various types of support including pro-bono and in-kind support	Number of events and trainings co-organized with finance institutions including the operating entities of the Financial Mechanism (GEF, GCF), the Adaptation Fund and MDBs (PMF indicator # 5.1.a)	3	Target set at 3-5 per year representing 15 – 25 over the PoW period	Event reporting template
	Percentage increase of funding mobilized from existing bilateral donors and through new donor Parties (revised from PMF indicator # 5.A)	% increase will be calculated at the end of the 5-year period[9]	At least 20% increase of the baseline over the PoW period	CTCN Admin and Financial team

[9]Total contribution from bilateral donors thus far for 2023-2027: 17,021,547 (45% of the total

	Number of CTCN technical assistance supported by the GEF/GCF/AF (PMF indicator # 5.1.c)	10 (4 AFCIA; 6 GCF Readiness)	Target set at 8-10 per year which represents 40 – 50 over the PoW period	TA Closure report
	Percentage increase in funding mobilized through resources from relevant operating entities of the Financial Mechanism, the Adaptation Fund and other international financial institutions (new)	0	At least 100% increase over the PoW period	CTCN Admin and Financial team
	Value of pro bono and in-kind support secured for CTCN activities (PMF indicator # 5.2.a)	1,000,000 USD	At least 10 – 15 % increase over the PoW period	CTCN Admin and Financial team
	Level of donor engagement (disaggregated by bilateral donor Parties, and international financial institutions) (PMF indicator # 5.2.b)	21 (10 bilateral donors; 11 international financial institutions)	20 donors engaged per year	CTCN Policy and Donor team
	Level of engagement with private sector and philanthropic organizations (new)	1partnership approved	Develop partnerships with a minimum of 1 private sector and/or philanthropic organization per year representing 5 partnerships over the PoW period	CTCN Policy and Donor team
	Number of technology proposals developed through CTCN technical assistance anticipated to be supported by the	27 * 2 AFCIA Concept Notes * 4 GCF PPFs	Target is set at 3-5 per year representing 15 – 25 over the	TA Closure Report

funding that was mobilized for the 2nd PoW period has already been mobilized in the first year of the 3rd PoW period)

	GEF/GCF/AF and other finance entities, including matchmaking (PMF indicator # 5.2.c)	* 21 CTCN TAs completed in 2023 with CN s developed)	PoW period	
	Number of impact stories developed and disseminated widely (new)	25 news pieces 13 stories	Target is set at 4-6 per year which represents 20 – 30 over the PoW period	CTCN Website
* No targets can be established because the CTCN operates as a demand-driven mechanism and has no influence over the extent to which technical assistance project requests will impact either the anticipated reduction or avoidance of CO2 equivalent emissions (tCO2e) or the expected number of direct and indirect beneficiaries resulting from the technical assistance projects				

Annex 4: Risk Management

Contextual risks

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
UNFCCC will modify mandate of the CTCN during COP.	Low	Minor	The CTCN Secretariat is closely monitoring the climate negotiations on technology . The CTCN has developed a robust mandate under UNFCCC.	The risk still exists though the CTCN has strong support from the developing countries with more than 100 countries being served	There would be an independent review on the effectiveness of the CTCN operations and its roles in supporting countries as an operational entity of the technology mechanism.
Supported countries does not adopt recommendations.	Low	Major	TA support is requested by NDE's and aligned to NDC's. CTCN has strengthened selection procedures, requirements for national SteerCo and is monitoring post-implementation.	Risk of limited resources to take recommendation further and ensure up-take in policies, regulations and implementation. Closer cooperation with other donors and climate funds increase prospects of impacts.	Majority of NDE's respond that apply or adopt TA recommendations. However, external CTCN network members leading TA can limit national ownership. Furthermore, learnings demonstrate that follow-up funding is important to move from policy to implementation. CTCN should increase up-take of recommendations by aligning closer to climate funds, UN agencies and MDB's.
New technologies impose risk of unintended adverse social and	Low	Major	TA is supporting policies and regulations promoting more climate and environmental friendly technologies that takes gender and human rights into account. CTCN follows UN procedures to comply with	Different political perceptions may exist and have competing social and environmental interest at national and sub-national level.	Climate-related technologies can have unintended social and environmental impacts. Broad stakeholder engagement is therefore important. The CTCN has broad stakeholder engagement in the Advisory Board and NDE's should

environmental impacts.			environmental protection and human rights.		establish national SteerCo's to reflect cross cutting topics.

Programmatic risks

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
CTCN outputs which create enabling environment for technology scale up are reversed due to change in national political affiliations.	Unlikely	Major	CTCN interventions are based on the country planning documents and being a country driven approach the government is engaged throughout the cycle	The risks still exist but reduced due to strong engagements with the national governments. In any case this would be restricted to a few countries at best.	There is political instability in some LDCs in African countries as reported by some agencies. Other countries have limited domestic resources to allow up-take of the recommendation and conrete
CTCN services on technical assistance do not match the programmatic priorities and strategies of host agencies	Likely	Minor	The CTCN follows the guidance of the advisory board on eligibility and prioritization of the request by the countries with a focus on supporting countries meet the implementation of NDCs	The risks still exist but reduced due to strong mandate delivered through the COP on the need to follow country driven approach. This is further strengthened by the Advisory Board guidance on the eligibility and prioritization criterion	The CTCN workplan is as per the guidance from the COP using the elements of Technology Framework with clearly defined climate objectives. The work programme of the host agencies are more broader and is not exclusive to climate change.
Limited implementation of TA analysis recommendation due financial constraints	Likely	Minor	All TA builds on national priorities but financial priority can be a constraint. Stronger alignment with other donors and post-implementation	The impact level is likely to vary. Close collaboration with other donors or available domestic resources will increase the likelihood of more transformative impacts.	2021 evaluation demonstrate 80% uptake and use of TA analysis and capacity building. However, evaluation from 2024 demonstrates that transformative change and impacts takes time. Technological transfer is not a quick fix and important to

			follow up has been strengthened.		secure further long-term funding for implementation.
CTCN not able to mobilize technology transfer at scale.	Likely	Minor	Technology transfer is included in the COP28 outcome document and most NDC's. New programmatic approach with the five transformation areas could allow for more global influence.	Main objective of CTCN is to respond to country request through small catalytic TA and capacity building programmes. Learnings at regional and global level is relevant to promote.	It is beyond CTCN main objective to accelerate global investments in technology transfer. However, there is an untapped potential for more instrumental knowledge sharing on technological transfer and uptake.

Institutional risks

Risk Factor	Likelihood	Impact	Risk response	Residual risk	Background to assessment
Frequent change in the NDE of few respective countries	Low	Minor	The implementation work of the current technical assistance does not stop; however the new requests are delayed. The CTCN provide extra efforts to onboard the new NDE	Short term risks still exist but reduced since the countries are have moved towards institutional structures to host NDEs	There is frequent request to the CTCN secretariat with regards to the services it provides and how the services can be accessed. Furthermore, for communication from the CTCN secretariat to the NDEs there is no response and later there is a request for the change in the NDEs name and focal point.
NDEs unable to fulfil their roles due to lack of capacities and shift in institutional priorities to	Likely	Minor	CTCN is working with the bodies under financial mechanism to have a close coordination mechanism at a national level between focal points of all initiatives like the GCF, NDCs, NAP, GEF etc.	Short term risks still exist but reduced due to COP decisions and increase in engagement of NDEs in the national planning process.	Initiatives and bodies like NDC Partnership, GCF Readiness programme are having a dedicated funding window for capacity building of respective institutions and the NDEs were perceived to be left out of this process.

bodies under financial mechanism					
The Consortium partners and co-hosts request change in roles.	Likely	Minor	The advisory board has asked CTCN to enhance engagement with the network members. The engagement of the network members is increased, and the network membership is growing	Short term risks still exist, though reduced due to continual increase in engagement with the network members	The consortium partners are less keen to develop terms of reference and refine the request for technical assistance, however they are keener on implementation of the technical assistance. The CTCN is working on creating a database of experts which can be hired for developing the response plans.
Political COP negotiations will influence decision-making in CTCN	Unlikely	Major	CTCN is seen as an operational arm of the UNFCCC. The CTCN participates and monitors the political situation.	Risk exist of CTCN to be involved in specific political messages. Risk for Denmark as host country for CTCN and a leading voice in the climate negotiations	The Advisory Board is considered fairly technical

Annex 5: Indicative CTCN Budget

Indicative resource allocation and financial plan of the CTCN PoW 2023-2027 presented as the indicative budget in the PoW.

(in '000 USD)

Outcomes and Activities			Yr 1	Yr 2	Yr 3	Yr 4	Yr5	SubTotal	Budget	Budget by Service
Innovation	Countries can accelerate innovation at different stages of the technology cycle through collaborative approaches.	1.1 Support policies institutional and regulatory framew orks and planning processes on innovation and strengthening National Systems of Innovation (NSI)	$2,500	$3,125	$3,906	$4,883	$6,104	$20,518	$27,615	$31,713
		1.2 Develop technological transition pathw ays and options for uptake of climate technologies	$1,000	$1,100	$1,210	$1,331	$1,597	$6,238		
		1.3 Promote collaboration and partnerships in climate technology RD&D activities	$150	$165	$182	$182	$182	$860		
Implementation	Countries have clear pathways and options to enhance technology development and transfer	2.1 Prioritize climate technologies and facilitate the development, implementation of NDCs, TNAs, roadmaps and pilot studies and alignment w ith NAPs	$650	$715	$787	$865	$1,081	$4,098	$4,098	
		2.2 Identity and develop recommendations on approaches, tools and means, for the assessment of technologies at national level	$1,000	$1,100	$1,221	$1,343	$1,477	$6,142	$6,142	$6,142
Collaboration and stakeholder engagement	Stakeholders are actively engaged and have strengthened capacity to implement climate action through collaboration	3.1 Design policies, regulations and standards that create enabling environments for climate technologies and deliver capacity-building	$100	$125	$156	$195	$244	$820	$1,641	$7,600
		3.2 Enhance the capacity of the NDEs to plan, monitor and achieve technological transformation	$100	$125	$156	$195	$244	$821		
		1.3 Promote collaboration and partnerships in climate technology RD&D activities								
Enabling environment and Capacity Building	Countries have enhanced enabling environments, including policy and regulatory environments to develop, transfer and deploy climate technologies.	1.1 Support policies institutional and regulatory framew orks and planning processes on innovation and strengthening National Systems of Innovation (NSI)								
		4.1 Strengthen know ledge and engagement in an inclusive manner and facilitate collaboration among relevant international organizations, the private sector, academia, and civil society	$220	$275	$344	$430	$537	$1,806	$5,960	
Support	Countries have access to Technical Assistance and financial support to enhance development and	5.1 Facilitate access to Financial Mechanism of the UNFCCC and mobilize various types of support including pro-bono and in-kind support	$490	$600	$1,000	$1,000	$1,064	$4,154		
Budget Total	Budget Total		$6,210	$7,330	$8,961	$10,424	$12,530	$45,455	$45,455	
CTCN Operational Costs	CTCN Operational Costs	Operations and Advisory Board (10%)	$620	$733	$896	$1,042	$1,253	$4,545	$4,545	
Total Outcome Budget	Total Outcome Budget		$6,830	$8,063	$9,857	$11,466	$13,783	$50,000	$50,000	

Annex 6: List of Supplementary Materials

CTCN Progress Report 2023: 2022-2023 CTCN Progress Report | Climate Technology Centre & Network | Fri, 11/24/2023 (ctc-n.org)

CTCN Third Programme of Work: CTCN Third Programme of Work (ctc-n.org)

CTCN 10 Years anniversary report: 10 years of technology solutions & innovation for climate action | Climate Technology Centre & Network | Fri, 03/22/2024 (ctc-n.org)

Founding documents:

Functions of the CTCN Microsoft Word - cp7a1.doc (ctc-n.org)

CTCN ToR untitled (ctc-n.org)

CTCN modalities and procedures untitled (ctc-n.org)

CTCN technical assistance request visualizations: Request visualizations | Climate Technology Centre & Network | Thu, 08/20/2015 (ctc-n.org)

Annex 7: Plan for Communication of Results

The CTCN will guarantee visibility requirements by including the donor logo in CTCN communications templates, and will also promote the signature of this new agreement in coordination with DANIDA The CTCN's service portfolio and the impact and outcomes of its activities are communicated through various platforms, including, CTCN's knowledge platform, social media accounts, and other key media partners' channels (i.e., UNEP's social media). The diverse and targeted user base of our knowledge platform possesses the significant potential to effectively disseminate the CTCN and the donor's best practices on competitive climate solutions and promote the sustainable use of natural resources in developing countries. On average, the CTCN website is consulted by 431,871 users yearly, with an average of 2,380 page views daily. The CTCN can also rely on an engaged community across its social media channels, reaching a total of over 10,000 followers.

The CTCN's communication materials are distributed targeting specific audience profiles. Key audiences including the 164 NDEs of developing and developed countries and 800+ Network members have full access to recorded webinars and newsletters on most recently implemented technical assistance stories and capacity building and networking events. Starting this year, the CTCN plans to participate in the UN Youth and Gender communication campaigns, to: a) raise awareness of climate technology and innovation solutions among these constituencies, b) support the UN in ensuring everybody has access and can benefit from advancement in climate technology and innovation, and c) systems of innovations and digitalisation create inclusive and empowered environments for the future generation.

The CTCN plans to introduce a post-technical assistance implementation series to turn the outcomes and lessons learned stemming from technical assisance into a capacity buidling opportunity for the benefit of all.

Annex 8: Process Action Plan (PAP)

Action/product	Deadlines	Responsible/involved Person and unit	Comment/status
Initial meeting between MFA and CTCN			
Collection of main material for project	15 March		Templates shared with CTCN
Zero draft shared and discussed between CTCN and DK	4 April		
CTCN Advisory Board Meeting	20 April		
Submit early draft to MFA internal Programme Committee	7 May		
Programme Committee Meeting – comments to early draft	21 May		
Incorporate comments and deliver final draft	10 June		
Submit the draft project proposal for appraisal	14 June		Agreement with Consultant Rene Karottki (not signed yet). NOTE, final agreement with LÆRING that KLIMA implements the appraisal
Appraisal finalised	9 August		
Incorporate appraisal comments	19 August		
Internal management review	23 August		
Submit for External Council Meeting	26 August		
External Council Meeting	12 September		

Final document for Minister Approval	10 October		According APD – no need for parliamentary approval (FIU) but maybe double check.
Sign agreement	1 November		
First transfer of funds	Mid January, 2025		

Annex 10: List of all CTCN supported Technical Assistances

Scaling up low-carbon and climate-resilient businesses led by women and young people	Uruguay
Household waste to biochar: an alternative to charcoal in savannah areas. in savannah areas.	Côte d'Ivoire
Development of a Deep Decarbonization Roadmap in the Cement Sector through Advanced Technology Upgradation and Enhanced Standards.	Kenya
Development of a Deep Decarbonization Roadmap in the Cement Sector through Advanced Technology Upgradation and Enhanced Standards.	Ethiopia
Creating tools and innovative processes of agrometeorological services to support farmers and decision-makers to increase resilience in the agricultural sector	Eswatini
Exploring the Green Hydrogen Potential in the Maldives: An Assessment for Sustainable Energy Transition	Maldives
Agrivoltaic project for N'sele	Central African Republic
Technical Assistance to identify and prepare a system of payments for ecosystem services, in order to manage and protect their watersheds	Haiti
Technology Needs Assessment (TNA) and Technology Action Plan (TAP) for Panama´s NDC implementation	Panama
Adoption of climate technologies applicable to MSMEs in the floriculture sector	Ecuador
Feasibility study and technical support for the implementation of a pilot project waste-to-energy pilot project at a cement plant belonging to the Groupe Industriel des Industriel des Ciments d'Algérie.	Algeria
Formulating and Submiting a multicountry request to the GCF readiness to update the Tenchnology Needs Assesment of Madagascar	Madagascar
Developing a blockchain-based national system of metrics on climate change monitoring, reporting and data management	Kenya
Enhance the resilience of Suriname´s water supply system by modelling drought risks and developing a roadmap of prioritized alternatives for aquifer recharge.	Suriname
Organic waste management project, targeting women and young people in particular, using inflatable tanks.	Haiti
Pilot project for the sustainable management of wood resources through the promotion of solar cookers and solar energy for the operation of electric cookers in a context of climate change	Mali
EV readiness studies, capacity building and standards development	Eswatini
Rehabilitation of wells in the commune of Liwa, capital of LIWA (Lake region), using solar-powered pumps and drawing up a guide to good practice for the consumption of this water, depending on the end use (drinking water, agriculture, livestock, sanitary	Chad

Fortalecimiento de las capacidades tecnológicas y de gestión para la implementación del Plan Nacional de Sequía del Ecuador.	Ecuador
Project to support environmental protection and climate risk management.	Central African Republic
Feasibility of improved water management technologies in schools also used as emergency shelters in Saint Lucia	St. Lucia
Reinforcing the implementation of actions to mitigate and adapt to climate change by developing solar energy systems for off-grid agro-industrial facilities through the establishment of a "Community Solar Platform".	Burkina Faso
Developing a Digital Platform for Irrigation Insights Without Using Sensors in Tanzania	Tanzania
Development of a SF6 Phase-out Roadmap and Pilot Projects	Kenya
Study for the Decarbonisation of Transport in cities in Equatorial Guinea	Equatorial Guinea
Technical Assistance Towards the Development of a Project Proposal for the Implementation of Climate Adaptation and Mitigation Technologies to Address Climate Challenges in Specific Sectors Based on Uganda's Technology Needs Assessment Outcomes.	Uganda
Promoting sustainable irrigation technologies: a water-energy-food (WEF) nexus perspective towards reducing climate risk from small farmers in high climate risk in the municipalities of Rabinal, and San Miguel Chicaj in the Dry Corridor of Baja Verapaz	Guatemala
Enhance resilience to floods by introducing technology for flood risk mapping and simulation to formulate relevant policies and counter measures in the most flood affected areas.	Mozambique
Real-time mapping of flood risk in Mali based on rainfall forecasts, remote sensing, and deep learning	Mali
Feasibility Study of Optimal Design Conditions for Biogas Plant for the Improvement of CH4 Capture Efficiency	Tanzania
Feasibility study of Waste to Energy (Livestock Manure to Biogas and Organic Fertilizer) for rural communities in Vietnam, using anaerobic digestion technology	Vietnam
Strengthening the community-based Flood and drought preparedness and early warning system in Sudan using operational and innovative models in addition to Satellite-based transmission technology for real-time automatic water level telemetry system	Sudan
The opportunities of Blockchain Technology for a real-time climate risk insurance system in Thailand's agricultural sector.	Thailand
Market assessment in the application of climate technologies in the agriculture sector for rural development in Cambodia	Cambodia
Integrated Fire Detection and Monitoring System for the Bolivian Chiquitano Forest in the Amazon basin	Bolivia

Technical Assistance for Enhancing longer lead-time flood forecasting and strengthened community dissemination in Bangladesh	Bangladesh
Formulating a National Electricity Grid Code and the Definition of a Net Metering Policy in Timor-Leste	Timor-Leste
Strengthening Waste Management Policymaking in Uganda in Response to Climate Change	Uganda
The Radio-Internet (RANET) climate disruptive technology initiative: Harnessing the combined potential of Radio and Internet to enhance agricultural resilience in rural Kebbi State, Northwestern Nigeria.	Nigeria
Using simple mobile technologies to scale up digital collection & processing of climate observations for adaptation actions in Malawi	Malawi
Pre-feasibility study of the use of photovoltaic systems on the roofs of public buildings in the Comoros, with a connection to the network, and the definition of a net metering policy.	Comoros
Evaluación de la contribución actual y del potencial de las PYMEs a la economía circular de la Región de Los Lagos, Chile	Chile
Establishment of an integrated salinity intrusion data sharing system for adaptation to the climate change impacts in the Mekong Delta of Viet Nam	Vietnam
Incubation programme for innovative companies based on climate technologies in the Democratic Republic of Congo	Congo - Kinshasa
Development of Framework for Real-Time Transport Information Systems for Public Transport in Greater Dhaka	Bangladesh
Develop a renewable energy investment framework to increase the share of renewable energy-based electricity generation to achieve Liberia´s NDC Commitments	Liberia
Development of Green Building Guidelines and Standards for Ghana	Ghana
Promote climate adaptation and food security in Comoros by defining a solar pump irrigation system using surface water for small-scale farmers in a pre-selected site, through innovative financing mechanisms and an enabling policy framework for the regulat	Comoros
Development of national hydrogen strategy and action plan for accelerating Thailand net-zero target	Thailand
The establishment of an Integrated Coastal Zone Management (ICZM) Plan to protect the mangroves through Ecosystem based adaptation solutions	Solomon Islands
Developing a framework and methodology to carbon sinks from the forestry sector using Earth observation in Samoa	Samoa
Coastal zone inundation- capacity development for bathymetry and wave modelling	Palau
Adoption of Green buildings in Pakistan to achieve Pakistan’s Nationally Determined Contribution	Pakistan

Technologies Framework for Implementation of Nationally Determined Contributions for Pakistan	Pakistan
Strengthening frameworks towards MSME financing for circular economy projects and initiatives aligned with National Climate Targets in participating countries	Chile, Colombia, Costa Rica, Peru, Dominican Republic, Uruguay
Technical Capacity Enhancement for Planning Urban Public Transport System in Vientiane, Lao PDR	Laos
Formulation of a Pre-Concept Proposal to the Innovation Facility of the Adaptation Fund, for a holistic watershed management approach including wetland creation for water supply, forest fire fighting and hydropower generation, forest rehabilitation for ec	Seychelles
Predictive models of the hydrological and sedimentary dynamics of ponds and small soil reservoirs in the Sahelian zone.	Niger
Feasibility study of waste water to biogas potential in rural settlements with no centralised sanitation system in Uzbekistan	Uzbekistan
Feasibility study of a combined heat and power supply using green hydrogen	Mongolia
Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique	Mozambique
Soil erosion valuation using advanced laboratory measurement methods to support climate resilient agriculture and food security	Sudan
Development of Green Building Standards for Zimbabwe	Zimbabwe
Development of a Framework and Roadmap for a National Innovation System to foster low-carbon and climate resilient economic development in Zambia	Zambia
Developing a national framework for deploying and scaling up E-Mobility (EM) in Tanzania	Tanzania
Development of Sectoral Technological Action Plans for the implementation of Morocco's long-term strategy for low greenhouse gas emissions	Morocco
Building up integrated monitoring and early warning forest fires detection system in the Borjomi - Kharagauli National Park by innovative remote sensing tools	Georgia
Enhance multi-scalar mapping and research of food security risk, due to the impacts of climate change on rural and urban environments	Jamaica
Análisis del estado actual del sector de la construcción y demolición respecto a la Economía Circular en la Ciudad de México para el desarrollo de una plataforma de Marketplace de materiales	Mexico
Customized weather and climate information system for climate-resilient agriculture in Nepal.	Nepal
Groundwater monitoring for mapping aquifers in Belize as a tool for climate change adaptation planning	Belize
Technical and economic feasibility of solar units and water storage on public buildings in Dominica	Dominica

Localization of water resources management technology to adapt to climate change in Hong-Thai Binh river basin	Vietnam
Aquifer mapping technologies for Zambia	Zambia
Solar based irrigation for women empoerment - "pay as you irrigate" as a means of water management and food security in Mozambique	Mozambique
Promoting and upscaling appropriate solar irrigation technology options for smallholder farmers in Ghana through innovative climate adaptation financing mechanisms, a conducive policy framework for technology regulation and tailored training modules.	Ghana
Diseño de un Plan de Adaptacion del Sector Generacion de Energia en Panama	Panama
Developing an STI-led cross-sectoral Circular Economy Roadmap for abating GHG emissions in South Africa	South Africa
A feasibility study for the utilization of solar energy for sugarcane irrigation pumping to reduce GHG emissions from the use of carbon rich imported electricity for emerging commercial small cane growers in the Eswatini.	Eswatini
Investigación, Desarrollo y Despliegue de tecnologías para la reducción de emisiones de GEI en establecimientos productores de leche, mediante la circularidad de flujos y materiales y el uso de tecnologías de mitigación de emisiones	Uruguay
Diseño del área temática de agua de las medidas de adaptación al cambio climático y el análisis de la sostenibilidad de las fases de desarrollo e implementación, en el marco de la hoja de ruta del componente de adaptación del Sistema de Monitoreo	Peru
Establishment of a skimming well gallery system for agricultural use in HDh.Nolhivaranfaru of Maldives	Maldives
Developing Integrated Water Resources Management (IWRM) Models for Hill Ecosystem in Nepal	Nepal
Developing Institutional Framework for the Energy Efficiency Act and Regulations targeting energy intensive sector (household and industries) in Nigeria	Nigeria
Development of a Multi-Hazard Platform for forecasting Local Level Climate Extremes and Physical Hazards for Iskandar Malaysia	Malaysia
Developing a national framework for the standardization of stalls and procedures for a climate smart street side vendor throughout The Bahamas	Bahamas
Increase the water supply system resilience in SKN by managing aquifers recharge (MAR) and incorporating drought risks modeling as a planning tool for climate change adaptation measures	St. Kitts & Nevis
Upscaling Lowland Rice Production to improve food security through improved solar powered irrigation practices	Liberia
Developing a national policy for deploying and scaling up E-mobility and supporting sustainable infrastructure in Papua New Guinea	Papua New Guinea

Capacity Development for the Deployment of Demand Response (DR) in South Africa to Mitigate against Carbon Emissions and Electricity Supply Shortages	South Africa
Tree Monitoring for Climate Adaptation in the City of Mbombela	South Africa
Easily deployable water-filled flood barrier that can be used to prevent damage from flooding and to store water vapor-tight to ensure water availability in times of drought	Burundi
Improving adaptive capacities of water sector through surface rain water harvesting technology adoption	Pakistan
Climate risk assessment for subnational adaptation and establishment of a local climate information system for climate change adaptation (LISA)	Cambodia
Enhancing climate resilience and economic sustainability of livestock farming in a rural community of Mongolia	Mongolia
Desarrollo de Datos de Dinámicas Marinas en las costas panameñas para evaluar impactos y vulnerabilidad por ascenso del nivel del mar	Panama
Enhancing Vanuatu's market for energy efficient appliances	Vanuatu
Technology Needs Assessment (TNA) and Technology Action Plan (TAP) for Chile`s NDC implementation	Chile
Soluciones basadas en la naturaleza para aumentar la resiliencia de comunidades rurales de montaña en áreas naturales protegidas afectadas por episodios climáticos extremos	Honduras
Apoyo en la transición hacia una Economía Circular en Costa Rica	Costa Rica
Technical Capability Enhancement to Promote Waste-to-Energy Technology in Viet Nam	Vietnam
Development of Action plan for rainwater harvesting system and financing proposals for Mozambique	Mozambique
Feasibility Study for Low Carbon Transport in Solomon Islands	Solomon Islands
Development of agrometeorological information tools and processes for decision-making in the agricultural sector	Mali
Identification and dissemination of technologies and practices for the transition towards a circular economy	Côte d’Ivoire
Technical assistance for the development of a methodology to create climate-smart municipalities in Togo and the preparation of action plans for adaptation and mitigation to climate change for 4 of these municipalities	Togo
Etude d'identification et d'Evaluation des Technologies et Procédés Industriels utilisées dans les industries productrices de ciment au Congo	Congo - Brazzaville
The identification of projects for the greening and resilience of the land and coastal areas of the Commune of Cocody, Abidjan	Côte d’Ivoire
The establishment of an Integrated Coastal Zone Management (ICZM) Plan to protect lives, properties and the environment	Liberia
Identification of technical practices for climate-smart agriculture (CSA) in Indonesia	Indonesia

Updating of Georgia's technology needs assessment (TNA) through development of technology road maps for prioritized technologies	Georgia
Technical assistance for the technology adaptation program for farmers to minimize the impacts of climate change on coconut lands in Puttalam District in Sri Lanka	Sri Lanka
The Clean Environment Company Feasibility Study and Technological Solutions for the Upgrade of Amman's Dirty MRF into an Integrated Solid Waste Management System	Jordan
Technical guidance and support to conduct a technology needs assessment and a technology action plan for Paraguay	Paraguay
Strengthening safe drinking water supply in rural Myanmar based on the gravity-driven membrane (GDM) technology	Myanmar (Burma)
Mitigation options in the waste and industrial processes sectors aligned with the updated NDC	Guatemala
Mapping contribution from private sector to mitigation and adaptation targets in Dominican Republic	Dominican Republic
Developing a systemic vulnerability assessment of the Guatemalan Dry Corridor	Guatemala
Identification of a climate research agenda to include collaboration with academia	Jamaica
Assessment of the current status of the circular economy in the waste sector for developing a waste stream specific roadmap in Malawi	Malawi
Technical and Economic Feasibility of Solar Milling in Women-led Agri-Food SMEs in Senegal	Senegal
Assessment of the current status of the circular economy in the waste sector for developing a waste stream specific roadmap in Zimbabwe	Zimbabwe
Developing Circular Economy Roadmaps for abating GHG emissions from the Waste Sector in Malawi	Malawi
Developing a national eMobility policy and framework for deploying and scaling up E-mobility in Nigeria	Nigeria
Development of climate change adaptation strategy for Buir Lake, Mongolia, using nature-based solutions	Mongolia
Application of the gravity-driven membrane (GDM) technology for supplying sustainable drinking water to rural communities in Cambodia	Cambodia
Developing Circular Economy Roadmaps for abating GHG emissions from the Waste Sector in Kenya	Kenya
Developing Circular Economy Roadmaps for abating GHG emissions from the Waste Sector in Zambia	Zambia
Ocean Energy Technical Pre-Feasibility Study	Nauru
Analysis and technical review of the existing legal framework for the implementation of a circular economy policy in Mexico	Mexico
Feasibility study of anaerobic digestion of the organic fraction of solid wastes in Mauritius	Mauritius

Development of energy audit and reporting guidelines for calculation of the emission factors (EF) for fossil fuel power plants	Vietnam
Capacity assessment on local grid integration of Solar or RE based power and development of grid codes for pilot geographic area in Cambodia	Cambodia
Development of Policy Guidelines on Building Codes for Enhancing Energy Efficiency and Identification of Viable Technologies for Public Buildings in the Kyrgyz Republic	Kyrgyzstan
Developing a national policy for deploying and scaping up E-mobility in Ghana	Ghana
Developing a power to gas masterplan in Lao PDR	Laos
The Technology Needs Assessment(TNA) and Technology Action Plans(TAPs) and Roadmaps for NDC Implementation for Republic of Uzbekistan	Uzbekistan
Developing a national framework for deploying and scaping up E-mobility in Zimbabwe	Zimbabwe
Deployment and scaleup of electric vehicles in Pakistan	Pakistan
Defining Uganda's vulnerability index and updating national level indicators for measuring resilience	Uganda
Updating of Technology Needs Assessment (TNA) and Technology Action Plan (TAP) for the implementation of NDC	Côte d'Ivoire
The technology needs assessment and technology action plans for the Kyrgyz Republic	Kyrgyzstan
Strengthening the National Disaster Management Agency's (NDMA) capacity's application of UAV and Remote sensing technology for vulnerability assessments and response planning to enhance national food security and climate resilience in Eswatini	Eswatini
Improving Resilience of the Education system to climate change impacts in the Eastern Caribbean region for Saint Lucia and Antigua and Barbuda	Antigua & Barbuda, St. Lucia
Feasibility Study for Low Emission Land Transport sector in Vanuatu	Vanuatu
Developing Methodology and Capacity for Monitoring Climate Change and its Impacts on Agriculture in Sudan through Earth Observations	Sudan
Smart drinking water network in Tunisia: first phase in Sousse and Monastir	Tunisia
Conducting a Technology Needs Assessment (TNA) and a Technology Action Plan (TAP) for the implementation of NDCs, Sierra Leone	Sierra Leone
Technical guidance and support to conduct a technology needs assessment and a technology action plan for Equatorial Guinea	Equatorial Guinea
Towards a circular economy of local governments in Costa Rica: The case study of Turrialba	Costa Rica

Technical assistance to identify the most suitable direct use applications and technologies in low to medium temperature geothermal systems in six African countries	Djibouti, Ethiopia, Kenya, Rwanda, Tanzania, Uganda
Development of energy efficient appliances and equipment strategy	Mozambique
Technical Assistance for the Development of a Climate Smart City in Kurunegala (Mitgation Element)	Sri Lanka
Development of institutional framework for the instalment, use and management of solar PV systems in the Gambia	Gambia
Formulation of Kenya's ten year national agroforestry strategy (2020 – 2030)	Kenya
Support for e-mobility transition in Jakarta	Indonesia
Leapfrogging Botswana's market to energy-efficient refrigerators and distribution transformers	Botswana
Updating technology needs assessment and development of technology roadmaps for prioritized technologies	Botswana
Assessment of the current status of the circular economy for developing a roadmap in several countries	Cuba, Dominican Republic, Ecuador, El Salvador, Paraguay
Study on the valorization of forest biomass waste into energy	Cameroon, Central African Republic, Chad, Congo - Brazzaville, Congo - Kinshasa, Côte d'Ivoire, Djibouti, Equatorial Guinea, Gabon, Mali, Senegal
Urban Briquette Making Pilot Project	Kenya
Leapfrogging Malawi's market to energy-efficient refrigerators and distribution transformers	Malawi
Conducting a Technology Needs Assessment (TNA) and a Technology Action Plan (TAP) for the implementation of NDCs in Gabon	Gabon
Conducting a Technology Needs Assessment (TNA) and a Technology Action Plan (TAP) for the implementation of NDCs in DRC	Congo - Kinshasa
Technical guidance and support for conducting the Technology Needs Assessment	Syria
Conducting a Technology Needs Assessment (TNA) and a Technology Action Plan (TAP) for the implementation of NDCs in Cameroon	Cameroon
Capacity building in renewable energy sector, Photovoltaic Solar Cell installation and maintenance for technical level and management	Timor-Leste
Revision of draft Tonga Energy Efficiency Master Plan (TEEMP)	Tonga
Tonga Circular Economy Project- Biogas Feasibility Study	Tonga

Promotion of the use of biomass briquettes for the substitution of charcoal	Burundi
Support to the reinforcement of the technicians' capacities in installation and maintenance of solar equipments for technicians	Burundi
Strengthening the resilience of cities by promoting and deploying green infrastructure in the face of climate change	Burkina Faso
Leapfrogging Lesotho's market to energy-efficient refrigerators and distribution transformers	Lesotho
Framework for Industrial Energy Efficiency Regulations (IEER) in Kenya	Kenya
Water Recycling Technologies in Namibia	Namibia
Leapfrogging Eswatini's market to energy-efficient refrigerators and distribution transformers	Eswatini
Leapfrogging Zambia's market to energy-efficient refrigerators and distribution transformers	Zambia
Feasibility Study for Sustainable Land Transport for Nauru	Nauru
Development of low-emission mobility policies and financing proposal for Cambodia	Cambodia
Technical Guidance and Support for Conducting Technology Needs Assessment	South Sudan
Leapfrogging Zimbabwe's market to energy-efficient refrigerators and distribution transformers	Zimbabwe
Technical Guidance and Support for Conducting Technology Needs Assessment in Iraq	Iraq
Leapfrogging Namibia's market to energy-efficient refrigerators and distribution transformers	Namibia
Development of Energy Efficient Appliance and Equipment Strategy in Tanzania	Tanzania
Study of the circular economy for roadmap development	Brazil, Chile, Mexico, Uruguay
Diagnosis on the vulnerability of three (3) communes of Cameroon in order to establish bases for developing energy and climate action plans	Cameroon
Support to the implementation of an integrated project Water-Energy-Livestock for the dairy value chain in the municipalities of Pette and Wina - North Cameroon	Cameroon
Technical Guidance and Support for Conducting Technology Needs Assessment in Nigeria	Nigeria
Technical support and guidance to conduct a Technology Needs Assessment, develop a Technology Roadmap for the Cook Islands and provide technical assistance to develop a GCF Readiness proposal to fund the project	Cook Islands
Development of a national roadmap for the use of low-temperature geothermal power in thermal conditioning in residential, industrial and commercial sectors	Uruguay
FTA: Designing ecosystem-based solution for building resilience of urban populations in Lao PDR	Laos
Development and enforcement of an efficient appliance strategy in Lebanon	Lebanon
Tkibuli Coal Mine Methane Development project	Georgia

FTA: Technical assessment to enable readiness for up scaling investments in building energy efficiency for achieving NDC goals in Thailand	Thailand
Assessment of appropriate climate technologies to prepare GHG emissions baseline for the cattle sector	Cuba
Technical Assistance for the Development of a Climate Smart City in Kurunegala	Sri Lanka
Development of draft legislation guidelines for a climate change act for Botswana	Botswana
Development of ToR for Performing a Cost Benefit Analysis (CBA) for the Introduction of EU Vehicle Emission Standards in Georgia'	Georgia
Technical Assistance for the development of an integrated and comprehensive agroforestry policy	Belize
Assistance in developing a TOR as a first step in creating an Electricity Masterplan	Seychelles
Solomon Water - Energy Efficiency and Self-generation Plan	Solomon Islands
Sustainable Domestic Water Pumping Using Solar Photovoltaic in Tanzania	Tanzania
Technical assistance for resilience to climate variability in the Building Sector of Antigua and Barbuda	Antigua & Barbuda
Design of an ecological response and restoration platform against fires, for the Chilean silvo-farming sector, as a mechanism for adaptation to climate change	Chile
West African coastal classification, hazard management and standardized communication scheme with the Coastal Hazard Wheel	Benin, Cameroon, Côte d'Ivoire, Gambia, Ghana, Guinea, Senegal, Togo
Accelerating the transition to sustainable mobility and low carbon emissions in Panama City	Panama
Valorization of geomaterials and promotion of environmental habitat	Congo - Brazzaville
Development of a certification course for energy managers and energy auditors of Bangladesh	Bangladesh
Foreign Currency PPA Risk Analysis and Assessment of Local Currency financing options for Renewable Energy Development in Uganda	Uganda
Technical Assitance to Conduct a Country Wide Grid Stability Study	Bahamas
Support for the implementation of an agricultural waste recovery unit	Côte d'Ivoire
Technical assistance for the development of a standard for the utilization of digestate in agriculture	Tunisia
Support for the deployment of solar energy technology in rural areas in Togo	Togo
Capacity Development to Address Risks in the Coastal Zones Associated with Climate Change	Kiribati, Marshall Islands, Palau, Solomon Islands
Improvement of water supply management through a GIS-based monitoring and control system for water loss reduction	Grenada

Technology Road Map for the Implementation of Climate Action Plans (INCR, NAP and NDC)	State of Palestine
National Certification Scheme For Energy Auditors	Pakistan
Technologies for the design and adaptation to climate change of a Regional Strategic Plan for the Coastal Management of the Province of Buenos Aires	Argentina
Determination and evaluation of environmental flows and river basin management plans based on the Tebicuary River priority basin	Paraguay
Technical Assistance for the Animation of the Brazilian Hydrogen Energy Research and Development Network	Brazil
Formulating a National Electricity Grid Code for Seychelles	Seychelles
Technology for Monitoring & Assessment of Climate Change Impact on Geomorphology in the Coastal Areas of Bangladesh	Bangladesh
Technical assistance for saline water purification technology at household level and low-cost durable housing technology for coastal areas of Bangladesh	Bangladesh
Strengthening the capacities of empowering women through PV systems (training, installing and entrepreneurship) at Fandema project	Gambia
Modernization of the district heating system and improvements of energy efficiency of buildings in the City of Belgrade	Serbia
Pilot demonstration of ESCO model for GHG mission reduction in the cement sector in Viet Nam	Vietnam
Cost-benefit Assessment of Mitigation Options in Rice Production: Data compilation, tools and training within the Vietnamese context	Vietnam
Building capacity for climate change science and creating awareness on Nationally Determined Contributions amongst Civil Society in Swaziland	Eswatini
Developing/strengthening existing institutional framework on implementation of Carbon Capture and Storage (CCS) regime in Nigeria	Nigeria
Technical assistance to carry out survey of potential carbon storage sites in geological formation	Nigeria
Technical support for Energy Efficiency on Refrigeration and Air Conditioning Sector Regulations Development options	Papua New Guinea
Piloting of Sustainable Drainage Systems (SuDS) in the Gauteng Province of South Africa	South Africa
Guidance and Support for Promotion of Technologies for Climate Change Mitigation and Adaptation	Armenia
Capacity development for preparing an integrated flood management plan for Dungsumchu Basin in Samdrupjongkhar	Bhutan

Assessment of Suitable Flood Mitigation Measures in Tbilisi, based on Tsavkisiskhevi River Extreme Flood Analysis	Georgia
Recycling of Waste and Organic Materials (Charcoal and Briquette Production)	Gambia
Development of a Regional Efficient Appliance and Equipment Strategy in Southern Africa	Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Eswatini, Tanzania, Zambia, Zimbabwe
Strengthening Capacities to Assess Climate Change Vulnerability and Impacts to Shape Investments in Adaptation Technology for Azerbaijan's Mountain Regions	Azerbaijan
Promoting data for climate change, drought and flood management in Myanmar	Myanmar (Burma)
Climate resilient decision making methods for Lake Victoria	Uganda
The turning point for the Climate Technology Adoption in Chilean SME companies	Chile
Request for technical assistance for the implementation of a project for industrial production of charcoal and related products	Congo - Brazzaville
Strengthening technical capacities for the implementation of a climate online platform for the National Information System on Climate Change - SNICC - and the Environmental Information System - SIA	Guatemala
Technical support to formulate a National Agroforestry Policy for Nepal	Nepal
Design of a national framework of climate change related indicators	Honduras
City Climate Vulnerability Assessment and Identification of Ecosystem-based Adaptation Intervention	Laos
FTA: Technical support in the formulation of the project "Cordillera Central Biological Corridor-Los Haitises"	Dominican Republic
Developing policy framework and business model to promote sustainable use of biomass briquettes in Nepal	Nepal
Improving Urban Transport for Key municipalities in Bhutan for Reducing GHG Emissions: Capacity Building and Piloting of Intelligent Transport Systems	Bhutan
Technical Assistance to Support the Accreditation of JSMO Energy Efficiency Lighting Laboratory in Jordan	Jordan
Development of a methodological framework for incorporating ecosystem-based adaptation in the process of planning and management of protected areas in Peru	Peru
Climate Change Vulnerability and Adaptation Study for the Port of Port Louis	Mauritius
Technical assistance for the establishment of a laboratory for accreditation and quality control of photovoltaic modules	Algeria
Financing strategy for Transit Oriented Development (TOD) - Addis Ababa Light Rail Transit (LRT)	Ethiopia
Design of a knowledge management system for tropical forests management and ecosystem services as an instrument for adaptation to and mitigation of climate change	Costa Rica

Early drought warning and forecasting considering climate change and climate variability	Ghana
Mainstreaming Gender for a climate resilient energy system in ECOWAS	Benin, Burkina Faso, Côte d'Ivoire, Gambia, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo
Identification, Characterization and exploitation of Potential Offshore Sand Banks/Deposits	Mauritius
Seeking Financial Support for Project Implementation	Jordan
Capacity Building in Prepare Project Proposal to access Funding	Jordan
The Development of Technology Needs Assessment at Subnational Level	South Africa
Development of a National Metrics System for Climate Change (SINAMECC)	Costa Rica
Development of a protocol for the planning, management and implementation of adaptation measures in land use planning at the level of Local Governments	Costa Rica
Substantial GHG emissions reduction in the cement industry by using waste heat recovery combined with mineral carbon capture and utilization	South Africa
Development of a Tonga Energy Efficiency Master Plan for Tonga	Tonga
Assessment of energy efficient street lighting technologies and financing models for Thai municipalities	Thailand
Benchmarking Energy & GHGs Intensity in Metal Industry of Thailand	Thailand
Fostering Green Buildings in Thailand- Enabling Readiness for Investments in Building Energy Efficiency for Achieving NDC Goals	Thailand
Urban Flood – Early Warning System	Thailand
Capacity Building on Technology Development for Efficient Use of Resources in Agriculture Sector	Thailand
Capacity building to gain expertise in efficient lighting systems	Tunisia
Technical Assistance for piloting rapid uptake of industrial energy efficiency and efficient water utilisation in selected sectors in Zimbabwe	Zimbabwe
Developing a Climate-Smart Agriculture Manual for Agriculture Education in Zimbabwe	Zimbabwe
Development of Product Standard & Comparative Labeling of "Electric Injera Mithad"	Ethiopia
Promoting the sustainable use of solar photovoltaic technology in Tanzania	Tanzania
Enabling community of Pwani, Lindi and Mtwara access efficient and low emission biomass stoves for the household and institutional cooking	Tanzania

Development of technology tools for the assessment of impacts, vulnerability and adaptation to climate change in the coastal zones of Uruguay	Uruguay
Establishment of a sustainable system for the collection and dissemination of agro-meteorological information for producers to adapt to the adverse effects of climate change	Benin
Feasibility study and development of an action plan to promote the manufacture of components of small power wind turbines and implementation of a pilot project	Benin
Research on low cost green technologies for sustainable water service delivery	Kenya
Technical assistance on the design and construction of a ground-based photovoltaic plant of 1MW rated capacity	Algeria
Technology transfer and spread of gasifiers and biodigesters of residual biomass to minimize greenhouse gas emissions from MSW	Ecuador
Rehabilitation and Modernization of the district heating (DH) system in the City of Banja Luka - focus on energy efficiency	Bosnia & Herzegovina
Optimising Guinea's access to climate change adaptation funding	Guinea
Creating a technology development and education centre for climate change	Madagascar
To support the replacement of F-refrigerants used in refrigeration system in food processing production and exports (fruits and vegetables)	Chile
Bio-waste minimization and valorization for low carbon production in rice sector	Vietnam
Regional Energy Efficiency Action Plan for ESD in Albania	Albania
Feasibility study to use waste as fuel for cement factories	Mozambique
Study of technical and economic feasibility to remove barriers to the implementation of drying and storage technologies for okra, mango and potatoes to support food security	Mali
Technical Assistance for the Implementation of Projects related to the Establishment of a Sustainable Financial Mechanism for Climate Change in Antigua and Barbuda	Antigua & Barbuda
Green technology deployment in industrial zones	Senegal
Developing a NAMA to leapfrog to advanced energy-efficient lighting technologies	Dominican Republic
Replacement project of fluorinated refrigerants for end users of refrigeration equipment in the dairy sector in Uruguay	Uruguay
The Development of Anaerobic Digester Technology for Palm Oil EFB Waste in Indonesia	Indonesia
A Community based early Warning System in every pocket from Santo Domingo, D.N.	Dominican Republic
Formulating Geothermal Energy Policy, Legal and Regulatory Framework	Uganda

Development of energy efficiency projects in industries and services	Senegal
Assessment and identification of technology needs and best practices for reducing the GHG emitting potential of the energy sector in Mauritius	Mauritius
Micro Combined Heat and Power Technology	Iran
Reducing GHG Emissions from Transport by Improving Public Transport Systems through Capacity Building and Use of Technology	Bhutan
Technical support and advise for the identification of technology needs in Afghanistan	Afghanistan
Technology Guidance and Support for Conducting the Technology Needs Assessment (TNA)	Pakistan
Technology of Photovoltaic Solar Cell Design and Manufacturing	Iran
Developing a strategy for the reduction of air pollution in the autonomous district of Abidjan in order to contribute to efforts to reduce the harmful effects of climate change	Côte d'Ivoire
Monitoring and Evaluation of national promotion policies for energy efficiency (EE) and renewable energy (RE) against national targets	Colombia
Development of a Mechanical-Biological Treatment (MBT) pilot project of the Waste NAMA	Colombia
Establishment of an Environmental Information System (EIS) capable of guiding the choice of a good policy for sustainable development and promote optimal management of climate change issues	Côte d'Ivoire
National Adaptation Monitoring System for Colombia	Colombia
Strengthening of the implementation of climate change adaptation and clean development actions by rural communities in Mali	Mali
Design of Biodiversity Monitoring Network in the context of Climate Change	Chile
Green Cooling Africa Initiative (GCAI)	Ghana, Kenya, Mauritius, Namibia