


















Danish Support to the Energy Sector Management Assistance Program (ESMAP)

<p>Key results:</p> <ul style="list-style-type: none"> 100 million people gaining access to clean cooking from financed projects catalysed by ESMAP 150 million people with new electricity access through ESMAP-informed projects funded through the World Bank. ESMAP has through advisory contributed to leveraging USD25 billion to finance renewable energy projects from World Bank and private financing. 15 countries supported by ESMAP have integrated access to electricity of displaced people and marginalized communities with a focus on the needs of women and girls Estimated GHG emissions reduced or avoided due to policy reforms informed by ESMAP towards 2030 (1,100 MtCO₂e) More female employees in the energy sector and investments in women's energy sector skills development. <p>Justification for support:</p> <ul style="list-style-type: none"> The support is aligned to Denmark's Strategy for Development Cooperation and Humanitarian Action as it contributes to the Danish target of closing the energy gap in Africa and to the Danish climate diplomacy supporting developing countries to decarbonize their energy sector. The Danish support to ESMAP supports SDG7 and SDG13 directly and will contribute to aligning the World Bank energy-lending portfolio to the Paris Agreement. ESMAP's analytical work and advisory services is well-placed to deliver results due to its leading position within the World Bank and expertise at the country and global levels. <p>Major risks and challenges:</p> <ul style="list-style-type: none"> ESMAP's new role as umbrella trust fund for the World Bank energy practice will expand its scope of work and budget significantly. The Danish contribution will be partly preferred to ensure budget for Danish priorities in the business plan. The negative economic impact of COVID-19 and need for kick starting economic recovery may tempt governments to opt for fossil fuel based energy solutions. ESMAP has integrated green COVID-19 recovery into its business plan. 	File No.	2020 - 17816									
	Country	Inter-regional									
	Responsible Unit	GJL									
	Sector	Climate/Energy									
	Partner	ESMAP, World Bank managed Trust Fund									
		<i>DKK mill.</i>	2020	2021	2022	2023		Tot.			
	Commitment	90						90			
	Projected ann. disb.	22.5	22.5	22.5	22.5			90			
	Duration	2020-2024									
	Previous grants	Yes									
	Finance Act code	06.34.01.40									
	Head of unit	Signe Skovbakke Winding Albjerg									
	Desk officer	Morten Blomqvist									
Reviewed by CFO	Karin Loch Henriksen										
Relevant SDGs											
 No Poverty		 No Hunger		 Good Health, Wellbeing		 Quality Education		 Gender Equality		 Clean Water, Sanitation	
 Affordable Clean Energy		 Decent Jobs, Econ. Growth		 Industry, Innovation, Infrastructure		 Reduced Inequalities		 Sustainable Cities, Communities		 Responsible Consumption & Production	
 Climate Action		 Life below Water		 Life on Land		 Peace & Justice, strong Inst.		 Partnerships for Goals			

Strategic objectives:

ESMAP's overall twin objective is to achieve universal access to affordable, reliable and clean energy by 2030 and achieving decarbonisation across the energy sector in support of international commitments on climate change.

Justification for choice of partner:

ESMAP is the umbrella trust fund on energy for the World Bank; the single largest contributor to energy investments in developing countries. ESMAP has a leading position within the global energy landscape and is uniquely positioned to support national green energy reforms, which justifies the Danish support. ESMAP has proven ability to deliver forward looking and tangible results to achieve its mission to increase investment in energy access, renewable energy, and energy efficiency. The new Business Plan sets new bold climate targets, which is well aligned to the Danish government climate priorities and the Danish Strategy for Development Cooperation and Humanitarian Aid.

Summary:

ESMAP is a multi-donor trust fund that provides analytical and advisory services to low- and middle-income countries to reduce poverty and boost growth, through environmentally sustainable energy solutions. The Danish contribution of DKK 90.0 million will be divided in both core and preferred funding to ESMAP's dual objective of accelerating energy access and promoting a sustainable energy transition. The preferred Danish contribution will focus on six priority areas of the business plan: Clean cooking, access to electricity in Africa, deployment of offshore wind energy, fossil fuel subsidy reform, coal phase out, and socio-economic and gender actions related to the energy transition

Budget:

Output 1 Core contribution to the ESMAP Business Plan 2021-2024	DKK 35.0
Output 2 Preferred funding to Danish priority areas	DKK 35.0
Output 3 Preferred funding to the Clean Cooking Fund	DKK 20.0
Total	DKK 90.0

Development Engagement Document

Danish Support for
The Energy Sector Management Assistance Program (ESMAP)
2020-2024

F2: 2020-17816

September 2020

Content

1. Introduction	4
2. Strategic considerations and justification	5
2.1. Context.....	5
2.2. Strategic considerations and justification for Danish support.....	5
2.3. Building synergies to the broader Danish global climate engagement.....	6
2.4. Results and lessons learned	7
3. ESMAP's Business Plan 2021-2024 and Danish priorities	8
3.1. Danish priorities in the Business Plan.....	9
4. Theory of change and key assumptions	11
5. Objective and summary of results framework.....	13
6. ESMAP Budget and Danish contributions.....	14
7. Institutional and Management arrangement	16
8. Financial Management, planning and reporting	17
9. Risk Management	17
Annex 1: Context Analysis.....	19
Annex 2: Partners	26
Annex 3: Results Framework	30
Annex 4: Budget details and donor contributions.....	54
Annex 5: Risk Management Matrix.....	61
Annex 6: List of supplementary materials	64
Annex 7: Plan for communication of results	70
Annex 8: Process Action Plan	71
Annex 9: Summary of recommendation of Appraisal	73

Abbreviations:

BBBG	Build Back Better and Greener
CG	Consultative Group
DAC	Development Assistance Committee
DEA	Danish Energy Agency
DTU	Danish Technical University
ESRF	Energy Subsidy Reform Facility
ESMAP	Energy Sector Management Assistance Program
GHG	Green House Gas
GJL	Sustainable financing, jobs and equal opportunities (MFA)
IEA	International Energy Agency
IFC	International Finance Corporation
IRENA	International Renewable Energy Agency
MFA	Ministry of Foreign Affairs (of Denmark)
OECD	Organization for Economic Co-operation and Development
SDG	Sustainable Development Goals
WB	World Bank
WBG	World Bank Group

1. Introduction

Insufficient access to clean energy remains a critical impediment to inclusive growth and job creation in developing countries while a transition towards renewable energy is a cornerstone to meet the Paris Agreement climate goals. The Energy Sector Management Assistance Program (ESMAP) is a multi-donor trust fund anchored in the World Bank (WB) that provides analytical and advisory services to low- and middle-income countries to reduce poverty and boost growth, through environmentally sustainable energy solutions.

From 2017-2019, ESMAP had an outreach to more than 70 countries and its technical advisory services informed a total US\$ 26.6 billion in World Bank energy financing. ESMAP's work in the period is estimated to benefit 76 million people with access to electricity and instalment of 17.6 gigawatts of renewable energy in more than 54 developing countries. Recently, ESMAP has also become the formal umbrella trust fund for energy within the WB's energy practice and it will also be responsible for managing associated energy trust funds. Denmark has supported ESMAP since 1999 and it is perceived as a strategic trust fund in the Danish effort to align the World Bank lending portfolio to the Paris Agreement.

This development engagement document is the basis for the new phase of Danish support to ESMAP for an amount of DKK 90 million and provides the justification for the renewed support to ESMAP. It also describes how Denmark will engage in the management and monitoring structures of the ESMAP trust fund during implementation.

The support is aligned with the Danish Strategy for Development Cooperation and Humanitarian Action 'The World 2030', which identifies Sustainable Development Goal (SDG) 7 on affordable and clean energy as one of the five overall SDG priorities. The engagement will also contribute to the ambition of the Danish government to reduce greenhouse gas emissions globally. An overall priority for the support will be that ESMAP, in line with SDG 13 on Climate Action, continues to green the World Bank energy-lending portfolio, align investment to the Paris Agreement and close the energy gap in Africa at the same time. Moreover, the engagement's focus on clean cooking will contribute to SDG 3 on good health and wellbeing as well as SDG 5 on gender equality.

This new phase will support the implementation of ESMAP's Business Plan for the period 2021-2024¹, which builds on ESMAP's twin objective of achieving universal energy access by 2030 and advancing decarbonisation across the energy sector in support of international commitments on climate change.

The Danish contribution will provide both core funding to ESMAP but also preferenced funding to targeted areas of the business plan that reflects particular Danish priorities². This includes priority areas such as clean cooking, access to energy in Africa and offshore wind energy in developing countries. Further, in the context of the Covid-19 crisis, ESMAP is well-positioned to provide technical advisory services to the World Bank and its client countries to Build Back Better and Greener (BBBG) in terms an economic recovery based on renewable energy.

¹ The ESMAP Business Plan follows the Fiscal Year of the World Bank beginning 1 July 2020 to 30 June 2023.

² ESMAP operates with three types of donor contributions; (i) core contributions to the Business Plan, (ii) preferenced funding to specific activities of the Business Plan, and (iii) earmarked funding to specific activities or associated trust funds. It is also possible to earmark contribution to the Business Plan but it requires separate contractual agreements and previous experience across the donor communities demonstrates that ESMAP meet their commitments agreed on as preferenced funding.

2. Strategic considerations and justification

2.1. Context

Despite acceleration in electrification in recent years, 650 million people are still expected to remain without electricity by 2030. Around 85 percent estimated to live in Sub-Saharan Africa. However, ensuring affordable, reliable, sustainable and modern energy for all by 2030 still remains possible due to the emergence of new cost-effective technologies such as solar home-systems and mini-grids targeting the poor and populations without access to electricity today. Reaching the remaining energy poor populations will not be easy considering that 87 percent of the population without access to electricity lives in rural areas and about one out four lives in fragile or conflict-affected countries.

Access to clean cooking has been neglected globally. More than 86 percent of the population in Sub-Saharan Africa (around 900 million people) lack access to clean cooking technology. At current progress rates, this number is estimated to increase to 1.3 billion by 2030. Exposure to household air pollution from incomplete combustion of traditional biomass fuel accounts for nearly 700,000 premature deaths annually in Sub-Saharan Africa. Furthermore, 88 percent of biomass used in Sub-Saharan Africa is non-renewable, contributing to deforestation, land degradation, and greenhouse gas (GHG) emissions.

Energy accounts for two thirds of total global greenhouse gas emissions³. For the world to meet its targets for limiting global warming, countries will need to undergo a fundamental energy transition, with systemic change bridging renewable energy, energy efficiency and energy access while simultaneously striving to leave no one behind.

The COVID-19 pandemic implies additional challenges for achieving the SDG7 targets but also new opportunities to Build Back Better and Greener. There is a risk that many developing countries will fall back to a fossil fuel based economy and that the nascent off-grid and mini-grid industry will face severe liquidity constraints. Yet, it should also be recognised that the COVID-19 recovery plans and stimulus packages could provide opportunities to build back better and greener by expanding renewable electricity access, transitioning to renewable energy and invest in energy efficiency which can create millions of new jobs.

2.2. Strategic considerations and justification for Danish support

The Danish organisation strategy for the World Bank Group emphasises that Danish contributions to trust funds in the Bank should have a catalytic impact on the integration of new aspects of the Bank's work. ESMAP has an important mandate as the World Bank umbrella trust fund on energy. It is uniquely positioned as both a thought global leader on the green energy transformation but also providing demand-driven advisory at the national level, which justifies the direct and long-term support by Denmark. ESMAP has demonstrated to be a highly respected and influential trust fund within the World Bank Group (WBG) and in this regard an efficient way to achieve a catalytic impact on the Bank's energy lending portfolio. The Danish contribution to ESMAP will in this context support the Danish effort to continue the greening of the World Bank, which is a key priority for Danish engagement with the World Bank together with other like-minded donors.

³ IEA (2018). Topics: Climate Change, www.iea.org/topics/climatechange

Denmark has supported ESMAP since 1999. The last core contribution of DKK 45.0 million to ESMAP was made in 2017. Additional DKK 36.5 Million was committed in the same period as preferenced contributions to the Global Facility on Mini-grids, the Energy Subsidy Reform Facility and mapping the wind energy potential in Ethiopia. This longstanding and multifaceted Danish collaboration with ESMAP have demonstrated positive results to transitioning the energy sector in developing countries and influencing the World Bank's lending portfolio. The Danish contribution will allow ESMAP to continue its demand-driven advisory services but also be partly preferenced to specific areas of the Business Plan that reflects Danish priorities.

Denmark has actively participated in defining the priorities of the new ESMAP Business Plan through meetings in the Consultative Group (donors). The Business Plan is designed to deliver concrete results to achieve SDG7 through technical assistance, analytics and mobilising co-financing to IDA-lending operations. ESMAP is therefore a well-placed partner to deliver on the Danish Strategy for Development Cooperation and Humanitarian Action 'The World 2030' but also as a trusted partner for the Danish SDG7 Leadership and the Danish government-to-government energy partnerships. Also, in comparison to other multilateral energy agencies, ESMAP is not only uniquely positioned to influence the Bank's work but also to support energy reforms of client countries towards a low-carbon future.

'The World 2030' identifies SDG7 as one of the five overall SDG priorities. The Strategy adopts a differentiated and context specific approach to support the different SDG7 indicators. Similar priorities are well reflected in ESMAP's Business Plan that both support a transition to a low-carbon energy transition in emerging economies but also has as a top priority to accelerate access to clean, affordable and sustainable energy in poor and fragile countries.

Also, support to ESMAP contributes to the Danish government's ambition to accelerate access to energy in Africa. In addition, ESMAP's Business Plan also contributes to other priorities for the Danish development assistance such as green jobs, skills development, gender equality and targeting refugees and their host communities to improve the foundation for durable solutions for displaced people.

The Clean Cooking Fund and Africa Energy LEAP program are two new World Bank flagship initiatives, which specifically will contribute to deliver results on closing the energy gap. ESMAP is foreseen to play a leading role of accelerating access to electricity and clean cooking to more than 250 million people in Africa by 2030.

Addressing gender in the energy sector is mainstreamed across ESMAP's work but also through a targeted work stream. Of particular relevance is the dedicated ambition to close the gender gaps in employment and entrepreneurship in the energy sector. This focus on gender equality and leaving no-one behind is also well aligned with the Danish government's ambition to deliver tangible results on access to clean energy in Africa.

2.3. Building synergies to the broader Danish global climate engagement

Denmark has a long-term experience as a green frontrunner country. The Danish Government has increased its global engagement to promote a just green transition in both growth economies and least developed countries. The stronger global Danish engagement include increased bilateral support to achieve universal access to clean energy in Africa but also announcement of 15 climate front posts where some are emerging economies such as India and Indonesia.

In the context of Doing Development Differently (DDD), the Danish MFA will continue to strengthen synergies between ESMAP's country advisory activities and Danish bilateral engagement. For example, Denmark has already experience building direct synergy between ESMAP and the Danish bilateral energy cooperation in Ethiopia on mapping the wind energy potential. Possibilities also exist to build closer collaboration with Danish civil society organisations with projects of relevance to ESMAP. Specifically, the MFA will seek opportunities for collaboration between ESMAP and the Danish civil society on access to energy and clean cooking targeted interventions in Africa.

Denmark expects to strengthen specific bilateral collaboration with ESMAP regarding accelerating universal access to electricity and clean cooking in Africa. Specifically, Uganda, Tanzania and Ethiopia have been pre-identified. In the future, complementary earmarked funding could be channelled through the ESMAP umbrella trust fund. Further, synergy to Danish bilateral engagements on access to electricity and clean cooking will also be explored with a priority focus on Africa.

Possibilities to strengthen collaboration between ESMAP and the Danish Strategic Sector Cooperation with the Danish Energy Agency (DEA) in selected climate front posts will also be explored. One example could be to increase collaboration between DEA, ESMAP and DTU Wind to jointly support the development of the offshore wind energy sector in India and Vietnam. This could continue the joined effort by ESMAP, IFC and DTU Wind from 2019 where an offshore wind atlas was launched showing offshore wind potential in more than 40 developing countries. This could also open opportunities to build synergies to the extensive Danish private sector on offshore wind energy. In order to consolidate the bilateral cooperation with ESMAP, possibilities for formalising agreements with ESMAP will be investigated.

ESMAP also takes up a key role by bringing global stakeholders from client country, private companies, donors, non-governmental organisations, multilateral agencies and academia to share knowledge in the energy sector. Denmark will continue actively encourage ESMAP to continue collaboration with external stakeholders. The joined SDG7 tracking report is good example of close collaboration with the International Renewable Energy Agency (IRENA), the International Energy Agency (IEA) and several UN agencies.

Finally, there is a possibility to promote other key priorities related to a low-carbon energy transition such as green jobs and skills development which is a priority for Danish development assistance and for most partner countries. ESMAP has already a particular focus on creating more employment opportunities for women and by this closing the gender gap in the energy sector.

2.4. Results and lessons learned

Denmark has been a long-term major supporter of ESMAP and contributed to turning ESMAP into the influential umbrella trust fund it is today. The Danish support has previously included both core contribution to the Business Plan and preferenced funding targeted priorities such as the creation of the successful Energy Subsidy Reform Facility (ESRF), which leveraged almost additional US\$ 20 million from other donors. Another example is the Danish support to ESMAP to produce the Ethiopia wind atlas, which has informed Danish-Ethiopian energy collaboration leading to the financing of the 100 MW Assela wind farm.

The results achieved by ESMAP during the last business plan period are also tangible and well documented. ESMAP’s work from 2017-2019 has informed a total of US\$26.6 billion in World Bank energy lending portfolio. This has been achieved through numerous pathways, including supporting the design of specific projects, providing data to enable public and private investment and provision of in-depth analysis to inform the operations. The lending operations informed by ESMAP are estimated to provide more than 76 million people with access to electricity and install 17.6 gigawatts in more than 54 countries. Finally, a total of US\$8.1 billion in private finance is associated with lending operations informed by ESMAP activities.

The lessons learned from the previous Danish core contribution is captured in the joined external evaluation of ESMAP completed in May 2020. It finds that ESMAP is at the forefront of the sustainable energy transition with a leading position globally and within the World Bank. ESMAP is foremost acknowledged for its work on the energy access and renewable energy, while its work on energy efficiency has not built a global reputation yet. ESMAP’s knowledge, expertise, hands-on advisory tools and operational engagement is accelerating the alignment of the Bank’s lending portfolio with SDG7 and providing inputs for global knowledge products but there are also opportunities to focus more on leveraging private finance.

3. ESMAP’s Business Plan 2021-2024 and Danish priorities

ESMAP’s strategic framework for the grant period is outlined in the newly adopted Business Plan 2021-2024. Denmark has been engaged in the formulation process of the Business Plan through the consultation process in the Consultative Group together with other donors. The Business Plan was finally adopted in June 2020 where the Donor group also emphasised that ESMAP should only provide advisory related to clean and renewable energy sources.

ESMAP’s Business Plan is covering an extensive range of challenges and addresses a complex set of thematic topics. As demonstrated in in Figure 1, the Business Plan is divided into four inter-linked programs focusing on electricity access, clean cooking, renewable energy and accelerating decarbonisation. These four programs is complemented by two cross cutting programs targeting the foundations for the Energy Transition and energy data.

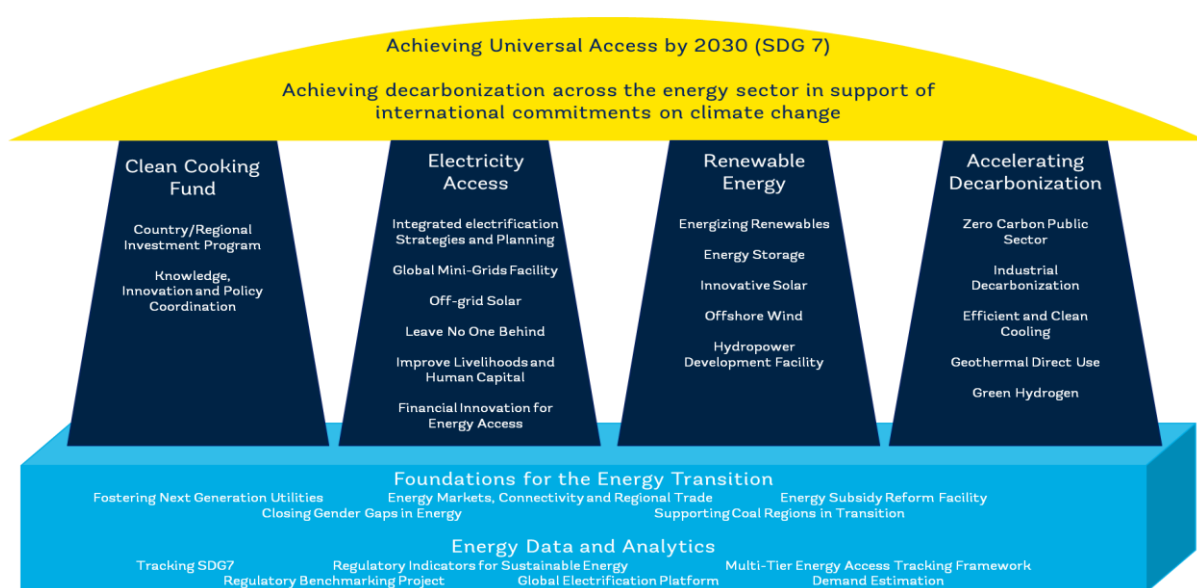


Figure1: ESMAP Business Plan FY2021-2024 Program Areas

The Business Plan is meant to be flexible to adapt to changes in the sector context over the next four years. Denmark will be informed and consulted on adaptive measures taken by ESMAP management through the Consultative Group. Most recently, this was the case by recognising the extraordinary challenge caused by the COVID-19 where the Business Plan managed to incorporate flexibility in order to respond to the rapidly evolving situation. It has also been the case take strategic leadership on new challenges and opportunities emerging in the sector such as clean cooking, offshore wind and energy storage.

3.1. Danish priorities in the Business Plan

Denmark has provided strategic guidance and direction for the priorities in the new Business Plan through active participation in the Consultative Group. Denmark will continue to advocate for Danish interest and positions throughout the implementation of Business Plan. An overall priority will be that ESMAP continues to green the WB's energy lending portfolio, align investment to the Paris Agreement and close the energy gap in Africa.

Part of the Danish support will be a core contribution to the general implementation of the Business Plan. Denmark will continue to advocate for the importance of core funding in the Consultative Group as several donors currently are reducing their core contribution. Core funding is critical to continue ESMAP's demand-driven approach and ensure funding for less attractive work such as better collection of data in the energy sector. Further, Denmark will advocate for a larger share of ESMAP advisory services will be targeted Africa and fragile states.

Preferred Danish funding

Another part of the Danish funding will be preferred to targeted areas of the Business Plan. The purpose of the 'preferred' funding is to strengthen synergies to Danish priorities in the development cooperation and climate diplomacy. It will also ensure that the Danish priority areas of the Business Plan are secured funding. To monitor and evaluate progress on the Danish priority areas and preferred support, specific indicators from the ESMAP results framework have been selected and will be monitored more closely. Furthermore, Denmark will proactively seek collaboration with ESMAP in these areas to build synergies to other relevant Danish bilateral and multilateral engagements.

In the below, ESMAP's main pillars are summarised and Danish priorities outlined in the following bullet point.

Pillar 1: To reach the 3 billion people that lives without access to clean cooking today, it is critical to leverage investments and high-level political commitments. ESMAP will leverage dedicated financing to clean cooking matching World Bank funding, catalyse technology and business innovations across clean-cooking value chains and mobilise high-level political commitment.

- Denmark will preference specific support *the Clean Cooking Fund*. Denmark will express a preference for supporting the *Results-Based Financing Mechanism* and *fostering female employment* through skills building. Danish funding will be preferred geographically to Africa, preferable to Uganda as it is a Danish priority country and one of first country programmes supported by the Clean Cooking Fund.

Pillar 2: Approximately 120 million people needs to obtain access to electricity each year to achieve the SDG7 target by 2030. ESMAP will support the scale-up actions through the World

Bank and other development partners. This work includes promotion of innovative technologies, business models, new policies and leveraging of public and private financing.

- Danish engagement will particular be targeted *accelerated access to electricity in Sub-Saharan Africa and fragile states* where the energy deficits are largest. Further, a focus on financial innovation for energy access and *off-grid solar scale up* will be thematic priorities. Denmark will also follow the new Africa Leap initiative aiming to mobilise the necessary financing to achieve universal access to electricity in Sub-Saharan Africa by 2030.

Pillar 3: Mature renewable energy technologies need to be scaled-up rapidly and new renewable energy technology fostered. ESMAP will support developing countries throughout the processes of scale-up renewable energy and to take advantage of new technology opportunities such as offshore wind, innovative solar, green hydrogen and energy storage technologies.

- A Danish priority will be engagement on *offshore wind* and establishing an ongoing dialogue with the *Danish Energy Agency and DTU Wind* on different technical advisory services to deploy offshore wind in emerging economies. Further, synergy can also be established to the *Danish private sector* and other knowledge institutions.

Pillar 4: Decarbonisation of industries and the public sector is essential to meet the climate change goals. ESMAP will support a Zero Carbon Public Sector by making investments in buildings, transport, and utilities. Decarbonising of high-emission industries will be targeted through technological innovation and scale-up of electrification, while ESMAP also will address the challenge of growing demand for cooling with the establishment of a Cooling Facility.

- Denmark will mainly focus on activities centered around decarbonisation of *high-emission industries* but also follow *the Cooling Facility*. Energy efficiency will also provide specific possibilities to build synergies to Danish bilateral engagements and private sector expertise.

Cross-cutting programs. Coal continues to power about 40 pct. of global energy demand, global fossil fuel subsidies was totalling USD 320 billion in 2019 and female employees are heavily underrepresented in the sector. ESMAP will support countries developing competitive markets and power trade; removing energy subsidies and closing the employment gender gaps the sector. Further, Lack of availability and quality of primary data in the energy sector hinder informed decision-making. ESMAP will strengthen primary data collection in the energy sector and provide one-stop shop data and knowledge platform with harmonised datasets.

- Danish engagement will mainly be targeted *skills development of women* to increase the share of female employees, leaders and entrepreneurs in the energy sector. Further, synergies to Danish climate diplomacy will be established to share knowledge on *energy subsidy reforms*, promotion of a *just transition in coal regions* and support design of new power markets. Finally, provision of access to *energy to displaced persons*, host communities and other marginalised people in fragile and conflict-affected situations should continue as a priority.

Denmark will also encourage ESMAP to use the Business Plan as a flexible instrument that can adapt to changes in the sector. One recent example was the rapid ability of delivering advisory and technical assistance promoting a Build Back Better and Greener approach as response to the COVID-19 pandemic.

Through the Consultative Group, Denmark will also monitor ESMAP's human rights based approach by emphasising that a green transition towards a low-carbon energy need to be inclusive and leave no one behind. Denmark will support ESMAP's effort to target access for the poor, refugees, host communities and female headed household in policies and business models. Safeguarding against adverse environmental and social impacts will likewise be important.

Another general priority will also be to encourage ESMAP's collaboration with the private sector. ESMAP is already collaborating with a number of international private sector associations but ESMAP could strengthen advisory directly linked to mobilising financing from the private sector and institutional investors.

4. Theory of change and key assumptions

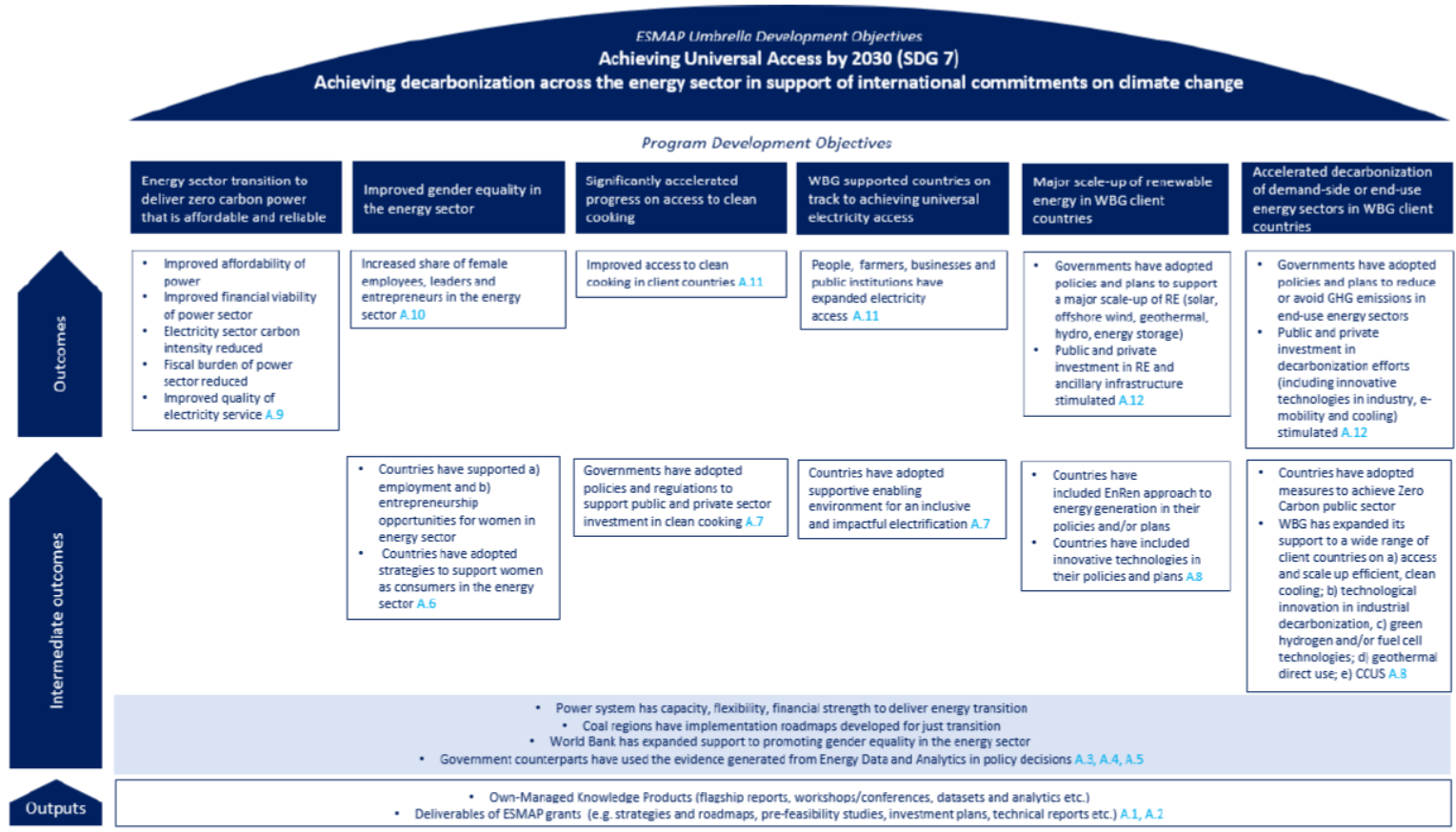
ESMAP's Theory of Change is integrated with the objectives of ESMAP's Business Plan 2021-2024 and the results framework. It reflects the ambitious business plan and the new 'umbrella' operational model where ESMAP is expected to manage both core program funding and earmarked funding to associated trust funds and recipient executed country projects.

The ESMAP Theory of Change demonstrates how ESMAP strives to contribute to the overall development objectives: achieving universal energy access by 2030 and achieving decarbonisation across the energy sector in support of international commitments on climate change. In line with the recommendations of the ESMAP External Evaluation, the Theory of Change illustrates how the foundational intermediate outcomes will enable higher-level results across programs. The Theory of Change is accompanied by a comprehensive Results Framework that defines indicators and targets to measure the progress towards achieving the development objectives.

Three different entry points of actions are assumed to contribute to the expected outcomes and impacts presented in the Theory of Change. *First*, ESMAP's knowledge, tools, and expertise, contributes to inform and accelerate the alignment of the WB's energy lending portfolio with SDG7. *Secondly*, ESMAP is supporting WB client countries with technical advisory, capacity building and analytics to undertake energy sector reforms and policy regulations. *Thirdly*, ESMAP has a global convening power that can bring together global stakeholders to share knowledge and build a common global vision for the energy transition. In addition, ESMAP's visual Theory of Change is complemented by 10 specific assumption linked to specific outputs and outcomes.

The Theory of Change is well aligned with the Danish ambitions for climate diplomacy and closing the energy gap in Africa. ESMAP's advisory to the World Bank lending portfolio and in country engagement is an enabler for achieving results and sustainability of the work. However, the ESMAP Theory of Change still depends on external factors (cf. assumptions) and the political economy that substantially can influence the effectiveness of ESMAP-funded activities.

Figure 2: ESMAP's Theory of Change



ASSUMPTIONS

A.1. Availability of practical knowledge on cutting edge technologies and approaches in energy sector and on strategies to mobilize private investment, as well as global and country data responds to the demand from the WBG operational teams and clients for developing tailored approaches to energy access and decarbonization.

A.2. ESMAP grants are demand-based and provide the analytical foundation for the World Bank and client policy decisions.

A.3. Well performing utilities and markets, with appropriate regulation, plans and incentives (e.g. through subsidy reform) enable countries to deploy non-carbon intensive technologies and attract private sector investments, setting the stage for results across the electricity access, clean cooking, renewable energy and demand-side decarbonization sectors.

A.4. Evidence-based World Bank and public interventions (e.g. geospatial planning, demand estimation, MTF for access etc.) increase their accuracy and contributes to achieving demand-driven results across all ESMAP thematic programs.

A.5. Expansion of the World Bank support to promoting gender equality in energy sector requires that the operational teams and clients implement specific activities aimed at closing the gender gap between women and men. This stimulates adoption of respective policies on gender across ESMAP's thematic programs.

A.6. Governments' adoption of practical policy measures and strategies stimulates increased opportunities for women as employees and entrepreneurs in the energy sector.

A.7. Adoption of specific policy measures (national electrification strategies, mini-grid regulations, business models to procure clean cookstoves etc.) set up the trajectories for countries to follow for increased access to electricity and clean cooking.

A.8. Expansion in the World Bank and client engagements (technical assistance, RETF-funded pilots, World Bank country strategies, including strategies for mobilization of private financing) on innovative technical aspects of promoting the generation of renewable energy and end-user decarbonization leads to both policy and investment (World Bank lending and private).

A.9. Power sector readiness to leverage modern, clean technologies and business models will enable energy sector transition.

A.10. Expansion of employment and entrepreneurship opportunities for women in the energy sector, as well as access to clean sources of energy and cooking will result in broader benefits (economic, social, health etc.).

A.11. Policies and investments to expand access to electricity and clean cooking contribute to both achieving the universal access and accelerating decarbonization through deployment of clean technologies (green mini-grids, SHS, clean cookstoves etc.)

A.12. Implementation of renewable energy generation and demand-side decarbonization projects (both World Bank and privately financed) creates direct benefits by adding GW of renewables in the countries' energy mix and reducing GHG emissions; while the policy commitments generate additional longer-term benefits putting the World Bank client countries on track to achieving the international commitments on climate change.

5. Objective and summary of results framework

The twin objective of ESMAP to *achieve universal access to energy by 2030 and achieving decarbonisation across the energy sector in support of international commitments on climate change* is well aligned with Danish priorities. It both targets the need to decarbonise emerging high emission countries but also addressing the global energy deficit, which leaves almost 800 million people without access to electricity today.

ESMAP has developed a comprehensive Results Framework that defines indicators and targets to measure the progress towards achieving the development objectives. ESMAP will report annual progress towards achieving the targets and conduct a mid-term review of the progress against the Results Framework to determine any necessary adjustments (see full results framework in Annex 5).

Denmark will monitor and comment on overall progress through an agreed procedures and governance structure where donors are informed and consulted through the Consultative Group. This is done annually in the Consultative Group meeting where specific progress reports and annual report are distributed for comments.

For Danida reporting purposes and to track progress on preferred Danish priorities, a number of key outcome indicators from the results framework have been selected to document progress. In line with the Doing Development Differently agenda the focus for this type of multilateral, global complex engagement will be on progress on outcomes rather than for outputs to allow for flexibility and adjustment. The selected indicators reflect the Danish thematic priorities and preferencing in the budget for the engagement with ESMAP. As presented in section 3.1., Danish priorities are concentrated around clean cooking, access to electricity in Africa, offshore wind energy, female skills and employment in the energy sector, broader decarbonisation and energy subsidy reforms.

Further, some indicators have been selected to reflect some of ESMAP's core competencies which is considered to provide analytical and advisory work informing energy policies, regulations, fiscal reforms and investment. Further, other indicators have been selected to represent co-benefits on other Danish priorities such as job creation, gender and displaced people.

Table 1: Danish priority outcomes from the ESMAP Business Plan 2020-2024

Programme	Selected outcomes	Indicators & targets
Clean Cooking	<ul style="list-style-type: none"> Improved access to clean cooking 	<ul style="list-style-type: none"> Number of people who gained access to clean cooking resulting from financed projects catalysed by ESMAP (target: 100 million) Percentage of the CCCF-supported projects that have proactive actions to promote female employment and gender co-benefits (target: 100%).
Electricity access	<ul style="list-style-type: none"> People, farmers, businesses and public institutions with electricity access. 	<ul style="list-style-type: none"> Population with new electricity access through ESMAP-informed projects funded through the World Bank, Governments, development partners and associated private sector investment (target: 150 million people) Electricity access financing mobilised through ESMAP and WBG mobilisation (target: US\$ 30 billion)

Renewable energy	<ul style="list-style-type: none"> Government adopt policies and plans to support a major scale-up of renewable energy. 	<ul style="list-style-type: none"> Renewable energy capacity additions under government policies and plans up to 2030 (target: 60 GW, of which 20 GW from Offshore Wind) Volume of financing leveraged for projects that increase RE capacity (target: total US\$ 25 billion) Number of countries where there is WBG engagement in supporting development of roadmaps including maximising socio-economic benefits with a focus on women's employment and skills development (target:20 countries).
Accelerating Decarbonisation	<ul style="list-style-type: none"> Governments have adopted policies and plans to accelerate decarbonisation. 	<ul style="list-style-type: none"> Estimated GHG emissions reduced or avoided under government policies and plans up to 2030 (target: 1.100 MtCO2e)
Energy transition	<ul style="list-style-type: none"> Energy sector transition to deliver zero carbon power that is affordable, reliable, 	<ul style="list-style-type: none"> Number of countries with official plans to reform energy subsidies (target 20 countries) Increase in share of female employees in energy sector World Bank projects (target: 5% over baseline). Coal capacity reduced through coal plant retirement/re-purposing (target: 5 GW) Number of countries supported by ESMAP that have integrated access to electricity of displaced people (target: 15 countries)
Energy Data and Analytics	<ul style="list-style-type: none"> Government counterparts have used the generated evidence in policy decision 	<ul style="list-style-type: none"> World Bank energy lending operations informed by using the Energy Data & Analytics datasets, applications and knowledge reports (target: 100 %) Well-established global initiatives (publications, indexes, white papers, etc.) use Energy Data & Analytics output (target: 10 initiatives)

Source: ESMAP Results Framework (annex 3)

6. ESMAP Budget and Danish contributions

ESMAP will be the anchor multi-donor trust fund for the World Bank energy practice and follow the new 'Umbrella 2.0 program' for trust funds. This means that ESMAP can channel core, preferenced and earmarked funding to own activities but also to associated trust funds and to recipient executed country-specific trust funds. In this new administrative context, ESMAP expects to be able to mobilise more funding.

ESMAP has presented an ambitious budget for the next business plan period with an increase by more than 50 pct. for ESMAP's own managed grants. The increase is justified as the climate crisis calls for bold ambitions to deliver on the Paris Agreements. In case the budget target is not met, the different work streams and pillars are designed to be scaled up and down. Worth mentioning is that that ESMAP managed to double its original budget during last Business Plan. The presented budget for 2021-24 in table 2 is divided in Bank-executed and Recipient-executed grants (se detailed budget in annex 4)

Table 2: Proposed Budget for Business Plan 2021 - 2024

Programs	Bank-executed (mill, US\$)	Recipient-executed (mill, US\$)
Energy Transition	177	36
Clean Cooking Fund	50	450
Electricity Access	90	140
Renewable Energy	78	105.5
Accelerating Decarbonisation	84	10
Energy Data and Analytics	41	
ESMAP Management/admin	20	
ESMAP TOTAL	540	741.5
GRAND TOTAL	1,281.5	

The total Danish contribution to ESMAP will be a DKK 90.0 million for the period 2020-2024. The Danish contribution will both contribute with core and preferenced funding to the business plan and include a specific preferenced funding to the associated Clean Cooking Trust Fund.

It is a requirement that the Danish grant meet OECD-DAC criteria for development assistance. The requirement is considered met by ESMAP as it is a trust fund within the World Bank and with a dedicated purpose focusing on low and middle-income countries. Nevertheless, Denmark will monitor the list of countries supported by ESMAP on an annual basis.

The Danish multi-year grant to ESMAP provides DKK 35.0 million in core contribution which reflects the overall relevance of the entire ESMAP Business Plan and the importance for ESMAP to respond to country-driven demands and new global topics.

Another DKK 35.0 million is preferenced for specific Danish prioritised areas of the Business Plan. The preferencing is made to ensure sufficient budgets for Danish priority areas. Prioritised areas will be (i) electricity access, particularly in Africa, (ii) offshore wind, (iii) Energy Subsidy Reformw, (iv) Renewable energy supports socio-economic development and action on gender, and (v) coal phase-out and a just transition. To allow some flexibility and avoid overfunding of specific work streams, ESMAP will be allowed to balance the allocation of funding between the five work streams. Denmark will monitor the preferenced funding through the selected results indicators and budget allocations on annual basis.

Finally, as underlined in the finance bill, the Danish grant will reflect an increased attention to accelerate progress clean cooking. DKK 20.0 million will therefore be preferenced to the recipient-executed clean cooking fund which is associated to ESMAP and forms part of the Business Plan. The preferencing is targeted Africa, and expected to be dedicated to the clean cooking component of the Uganda Electricity Access Scale-Up project. Further, Denmark has expressed specific interest to support the Results-based Financing component.

Table 3: Danish ESMAP contribution

Danish multi-year ESMAP contribution – 2021 - 2024	Amount (DKK, million)
Core Funding to ESMAP Business Plan 2021 – 2024 outputs	35.0
Preferred priority areas for the Business Plan <ul style="list-style-type: none"> • Electricity access in Africa, • Offshore wind, • Energy Subsidy Reforms, • Renewable energy supports socio-economic and gender actions • Coal phase-out and a just transition 	35.0
Preferred support to the Clean Cooking Fund	20.0
TOTAL Danish contribution	900

Funds from Denmark to the ESMAP will be disbursed once per year, following the approval of the previous year’s annual report and accounts, with a foreseen annual disbursement of DKK 22.5 million between 2020 and 2024.

7. Institutional and Management arrangement

ESMAP will continue to be fully integrated in the World Bank’s Energy Global Practice with the objective of informing World Bank policy dialogue and lending through ESMAP’s centers of technical expertise. This will involve a combination of own-managed global knowledge work, technical support to World Bank operations by ESMAP staff, and provision of country-based grants to World Bank regional and IFC operational units.

ESMAP also convenes a Technical Advisory Group (TAG) of leading practitioners and experts from academia, international organisations, World Bank clients, think tanks, and the private sector. The purpose of the TAG is to provide advisory on recent trends and implications of changes in the energy sector. The TAG meets to provide advisory for the mid-term review and to the new business plan and recommendations are presented to Consultative Group. The MFA will seek opportunities to propose a Danish expert as a member of the TAG.

The Department for Sustainable Investments, Jobs and Equal Opportunities (GJL) in the Ministry of Foreign Affairs (MFA) will be the focal point for the ESMAP’s Consultative Group (CG), and coordinate with relevant MFA offices and other public institutions. The ESMAP CG is composed by contributing donors and is responsible for providing strategic guidance and direction on the implementation of ESMAP Business Plan. The CG also provides advisory to emergent ESMAP priorities and reviews the annual financial and progress reports. In general, CG decisions are made by consensus during meetings following a “no-objection” process. The Bank is the chair of the CG and plays a facilitating role. A vice-chair of the CG has recently been introduced and will be elected for a two-year period by the donor group.

Denmark has currently also a secondment to ESMAP providing technical advisory in the field of energy efficiency and renewable energy. The Danish MFA will explore possibilities to establish enhanced collaboration and dialogue between the Danish seconded staff, ESMAP and the Danish Energy Agency’ international work targeted improved energy efficiency. There is not included a budget for a new seconded staff to ESMAP but if a need is identified, the MFA could apply for a new secondment through the administration of Danish-funded advisors to multilateral organisations

Finally, the Danish engagement will also focus its engagement with ESMAP management to ensure adequate resources and time for Monitoring, Evaluation, Accountability and Learning (MEAL). Learning is part of ESMAP's core business area due to its dual-pathway approach of providing technical assistance and operationally oriented analytical work on the one hand and global coordination, knowledge development and experience sharing on the other. Reflections about knowledge generation in the business plan that focuses on practical learning, stocktaking and sharing across countries is important will allow to continuously improving ESMAP's work. This will be done throughout the year but in particularly through the annual Consultative Group meeting.

8. Financial Management, planning and reporting

The World Bank accepts the contributions on behalf of the ESMAP, according to its policies for acceptance of external funds, normally in cash under trust fund agreements between the donor and the World Bank.

Accounting, auditing and reporting will be undertaken in accordance with the Administration Agreement between ESMAP and the World Bank Group. ESMAP will provide access to current financial information relating to the trust fund, in the holding currency of the trust fund, and an annual single audit report within six (6) months following the end of each Bank fiscal year.

The audit report should comprise (i) a management assertion together with an attestation from the Bank's external auditors concerning the adequacy of internal control over cash-based financial reporting for trust funds as a whole; and (ii) a combined financial statement for all cash-based trust funds together with the Bank's external auditor's opinion thereon. The cost of the single audit shall be borne by the Bank. The Bank will make available copies of all financial statements and auditors' reports received by the Bank from Recipients pursuant to any Grant Agreements in accordance with the Bank's Access to Information Policy.

ESMAP produces an annual narrative and financial report demonstrating progress of the results framework indicators and targets. The narrative report is presented to the Consultative Group for comments before final submission. Results on relevant selected indicators will be reported to the Danish public through Open Aid. A joined external mid-term review and final evaluation is also planned. The TAG will provide external advisory to the mid-term review and final evaluation.

Funds from Denmark to the ESMAP will be disbursed once per year, following the CG's approval of the previous year's annual report and accounts, with a foreseen annual disbursement of DKK 22.5 million between 2020 and 2024.

The Danish Ministry of Foreign Affairs reserves the right to carry out any technical or financial mission that is considered necessary to monitor the implementation of the program. After termination of the program support, Denmark reserves the right to carry out evaluation in accordance with this article.

9. Risk Management

ESMAP complies with the World Bank's administrative, operational, and fiduciary capacities, including policies to safeguard against corruption, fraud and adverse social and environmental impacts.

In practice, this means that the ESMAP risk management is integrated in the overall World Bank Risk Framework. The Risk Framework pillars include the Systematic Operations Risk-Rating Tool

(SORT), which rates eight dimensions of risk (Environment and Social; Fiduciary; Institutional Capacity; Macroeconomic; Political and Governance; Sector Strategies and Policies; Stakeholders; and Technical Design). Rating is divided on a four-point scale (high, substantial, moderate or low) depending on the likelihood that risk will materialise and the expected severity of its impact if it does materialise.

ESMAP has established its own risk management framework divided between strategic and operational risks (see annex 5). The risk matrix highlights relevant risk such as ESMAP not responding to client needs, duplication with existing activities and ESMAP support not reaching vulnerable population, e.g. in fragile environments. The risk matrix will be discussed annually within the Consultative Group.

As a donor, Denmark considers ESMAP to have solid risk mitigation measures in place and the overall risk rating is considered low. The Danish risk management will therefore focus on specific key contextual, programmatic and institutional risks for the Business Plan period.

Programmatic risks. The risk of duplication of activities is considered likely as the institutional architecture related to sustainable energy is crowded at both national and global levels. This risk will be mitigated by strengthening global collaboration with Danish supported multilateral energy agencies and monitoring joined global flagship initiative. Further, the MFA will seek to establish closer collaboration with Danish priority countries in Africa on the energy access agenda whereas collaboration with the Danish Energy Agencies and other Danish stakeholder will be strengthened in the Danish climate front posts. Another programmatic risk is the extensive and ambitious Business Plan and budget. This risk is mitigated by preferencing part of the Danish funding to areas of the Business Plan which reflect Danish priorities.

Contextual risks. Three contextual risks that have been identified as likely in the new Business Plan. First, the Covid19 pandemic could undermine the expected results in accelerating a decarbonisation. This risk is mitigated by a clear commitment by ESMAP (in annex to the Business Plan) to provide advisory to Build Back Better and Greener. A second risk is the rapid technological and financing development of the renewable energy sector. This risk is mitigated by establishing a close and ongoing dialogue with the ESMAP Management and allowing the Business Plan to be flexible by adopting new opportunities during the implementation period. Thirdly, the part of the World Bank Board is currently pushing more Bank lending in direction of fossil fuel infrastructure. This risk is mitigated by the Consultative Group providing a clear joined statement that ESMAP should only provide technical assistance and advisory related to renewable energy and decarbonisation.

Institutional risk. The new umbrella trust fund structure opens new possibilities but also increased risks for fraud, corruption or misconduct under ESMAP-financed projects. This is due to higher risks imposed by the management of recipient executed trust fund. This risk has been rated likely, though the World Bank has a solid framework, and will be mitigated by following Danida policy on anti-corruption and requesting annual up-dates on this risk through the Consultative Group.

Annex 1: Context Analysis

1. Overall development challenges, opportunities and risks

According to the latest Tracking SDG7 report, despite significant progress in recent years, the world is at risk of not meeting the global energy targets set in the United Nations Sustainable Development Goal 7 (SDG7) for 2030. The SDG Target 7.1 is to ensure universal access to affordable, reliable, and modern energy services (7.1.1 focuses on the proportion of the population with access to electricity and 7.1.2 on the proportion relying primarily on clean fuels and technologies for cooking). Target 7.2 is to increase substantially the share of renewable energy in the global energy mix. Target 7.3 is to double the global rate of improvement in energy efficiency.

Ensuring affordable, reliable, sustainable and modern energy for all by 2030 remains possible but will require stronger efforts, particularly to reach some of the world's poorest populations and to significantly improve energy systems' sustainability in the context of climate change.

- In recent years, marked progress in expanding access to electricity was made in several countries. As a result, the global population without access to electricity decreased to 840 million in 2017 from 1.2 billion in 2010. Those still lacking access are increasingly concentrated in Sub-Saharan Africa.
- Meanwhile the population without access to clean cooking solutions remained stagnant at about 3 billion people, mostly in Asia and Africa.
- Renewable energy accounted for 17.5 percent of global total energy consumption in 2016 (increasing from 16.6 percent in 2010), with the fastest growth in electricity generation, but less headway was made in heat and transport which account for a significant share of final energy use.
- With respect to energy efficiency, global primary energy intensity was 5.1 megajoules per U.S. dollar (2011 purchasing power parity) in 2016, compared to 5.0 MJ/USD in 2010. Energy efficiency improvements have increased steadily in recent years, thanks to concerted efforts in major economies. However, the global rate of improvement in primary energy intensity still lags behind SDG target 7.3, and estimates suggest that improvements slowed in 2017 and 2018.

Reaching the targets set by SDG7 requires robust and enforced regulatory frameworks for energy access, renewable energy and energy efficiency. Progress on sustainable energy outcomes has often been preceded by long-term efforts to strengthen policy and regulatory environments. According to the Regulatory Indicators for Sustainable Energy report (RISE 2018) there has been significant improvement in sustainable energy policies globally: the number of countries with advanced policy frameworks for sustainable energy has more than tripled between 2010 and 2017 – from 17 (largely OECD) countries to 59. Nevertheless, the overall average country RISE score is still only 58 out of 100.

The RISE report also highlighted that poor creditworthiness of utilities undermines the sustainable energy agenda. As of 2016, only about half of all power utilities met several basic creditworthiness requirements. Moreover, performance on almost all dimensions of creditworthiness has deteriorated since 2012. The situation is particularly acute in low-access countries, where the proportion of utilities meeting basic creditworthiness criteria dropped to 37 percent in 2016.

Universal access to affordable, reliable electricity and clean cooking and mitigation of climate change are identified as two priority areas which should drive the energy sector. The IEA's flagship World Energy Outlook (WEO) 2019 points out these challenges presented by "the gap between the promise of energy for all and the fact that almost one billion people still do not have access to electricity" and "the gap between the latest scientific evidence highlighting the need for evermore-rapid cuts in global greenhouse gas emissions and the data showing that energy related emissions hit another historic high in 2018" (WEO, 2019). The ESMAP Business Plan for FY21-24 will, therefore, focus on these twin objectives: achieving universal access by 2030 and advancing decarbonization across the energy sector in support of international commitments on climate change.

Pursuant to these objectives, ESMAP will have four inter-linked programs which focus on electricity access, clean cooking, renewable energy and decarbonization and will be underpinned by two cross cutting programs: on Foundations for the Energy Transition and Energy Data and Analytics.

List the key documentation and sources used for the analysis:

- ESMAP FY21-24 Business Plan;
- ESMAP Annual Report
- ESMAP Progress Reports
- ESMAP FY17-20 Portfolio - Background Slides for CG
- Knowledge Hub reports: Tracking SDG7 Report, State of Electricity Access Report (SEAR), Regulatory Indicators for Sustainable Energy (RISE) policy scorecard, Multi-Tier Framework (MTF)
- World Energy Outlook (IEA 2019)

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

No additional studies are needed at this point. ESMAP continuously develops analysis relevant to the overall objectives of energy access and decarbonization of the energy sector. Through the Consultative Group Denmark can suggest additional analysis in its priority areas within energy and development

2. Fragility, conflict, migration and resilience

ESMAP's programs support the achievement of the World Bank's corporate priorities, such as climate change action; gender equality; support to fragile and conflict-affected states; and maximizing finance for development.

Of the countries with the largest number of people currently without access to electricity, 23 have high- and medium-intensity conflicts or high institutional and social fragility, where displaced people, host and other marginalized communities are priority targets for electrification efforts. ESMAP expects to support World Bank electrification projects in 65 percent of these countries.

Connecting the last of the unserved populations may be more challenging than past electrification efforts, since many live in remote locales or overburdened cities. Globally, 85 percent of the unelectrified population lives in rural areas, where affordability is low and costs of service provision high, often prohibitive for traditional grid extension methods. Furthermore, about 30 percent of the unelectrified population lives in fragile or conflict-affected countries. According to the UNHCR, over 85 percent of the world's 68.5 million forcibly displaced people are hosted by developing countries, and most of them lack access to legal, safe, reliable, and affordable electricity.

Approved ESMAP proposals include identifying the expected benefits and the risks to extending them to the most vulnerable population, in particular, females and those residing in fragile, conflict and violence afflicted countries.

Several ESMAP programs (such as on hydropower, efficient cooling, mini-grids, Next Generation Utilities, and regional markets and power trade) would consider that the policy and investment outcomes not only have climate mitigation impacts, but also contribute towards climate adaptation and resilience. In these areas, ESMAP will also draw on collaboration with other programs in the World Bank, such as the Global Facility for Disaster Reduction and Recovery (GFDRR) and the new Climate Support Facility.

New challenges such as the COVID-19 crisis could threaten the momentum built to accelerate electricity access. ESMAP's work will focus on mobilizing resources and providing guidance to clients and partners in their response to the immediate crisis by electrifying health facilities, as well as on mitigating negative impacts on the nascent mini grid and off-grid solar industries which are essential for achieving universal access. In the medium term, expanding electricity access and supporting productive uses will contribute to the recovery effort. Sustainable electrification, particularly through decentralized renewable energy solutions, will help build resilience against future (climate, health and other) shocks.

The COVID-19 response will focus on three main areas:

Creation of clean energy jobs. This will be accomplished through acceleration of the shift to renewable energy, including in the off-grid and mini-grid space, and a zero-carbon public sector. Skill development and training for green jobs in coal regions in transition address the social dimension of the transition away from fossils.

Enhanced fiscal space. Reform of fossil fuel and power subsidies along with stronger but targeted social protection systems can directly reduce the fiscal burden of the energy sector; investment in RE

will help create fiscal space by taking an “invest to save” approach that would lower the need for spending on fuels.

Reliable, affordable and resilient electricity supply. Support to enhance utility operational and financial performance, develop energy markets and the uptake of digital technologies allowing exploitation of demand response and decentralized generation in combination with off-grid and mini-grid supply will result in lower cost, more reliable power for underpinning growth and recovery that is also more resilience to future shocks.

List the key documentation and sources used for the analysis:

- ESMAP FY21-24 Business Plan
- ESMAP Annual Report
- ESMAP Progress Report

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

A more detailed concept note on the role of the energy sector in the post COVID -19 recovery will be presented to the CG later in 2020.

3. Assessment of human rights situation (HRBA) and gender⁴

HRBA

While access to affordable, reliable, sustainable and modern energy for all is a Sustainable Development Goal (SDG7), access to renewable energy is not a human right in its own right. However, given the role of sustainable energy as a broader enabler of human and economic development, it is strongly interconnected with basic rights such as the right to life, food, health, shelter, education, etc. The ESMAP Business Plan 2021-24 will address this through capacity development and tools for more well-informed and transparent decision making in the energy transition, including better understanding of the socio-economic benefits also in end-use sectors. This will enable the *duty bearers* (i.e. the political decision makers and public authorities) to be mindful of the needs and priorities of end-users and ultimate beneficiaries, e.g. at the household and enterprise level (*the rights holders in human rights terminology*). The human rights principles of participation, accountability, non-discrimination, and transparency will thus be supported. Regarding the cross-cutting concern about *youth* the project’s emphasis on deployment of renewable energy and energy efficient technologies and systems is directly relevant, in particular in the areas of education and job creation.

Gender

Addressing gender in the energy sector (cooking energy, electricity) is mainstreamed across ESMAP’s work but also through targeted work stream. Of particular relevance is the dedicated ambition to close the gender gaps in employment and entrepreneurship in the energy sector.

Advancing gender equality is necessary for a sustainable energy sector. The proposed ESMAP program goes deep in the energy sector and embeds learning and experience within World Bank operations with the potential to impact key areas of the WBG gender strategy: endowments, jobs, entrepreneurship, and voice. In particular, ESMAP enhances the preparatory and upstream work that Bank teams and clients need, such as providing better gender data and rigorous knowledge of what works to close gaps between women and men. Gender equality will be a cross-cutting theme across all programs, with a specific focus on closing gaps in employment, entrepreneurship, and access to modern energy services.

All activities will be supported by an analysis of gender gaps and specific measures aimed at their closure. This will include ensuring that energy planning and national electrification programs include provisions for vulnerable female populations, such as female-headed households, increasing female participation in the newly created off-grid clean energy supply chains, and improving financial inclusion for female

⁴ The purpose of the analysis is to facilitate and strengthen the application of the Human Rights Based Approach, and integrate gender in Danish development cooperation. The analysis should identify the main human rights issues in respect of social and economic rights, cultural rights, and civil and political rights. Gender is an integral part of all three categories.

entrepreneurs in off-grid business and for productive uses. Additionally, this also means ensuring that vulnerable groups are being accounted for in the various surveys being conducted under the Energy Data and Analytics program.

The ESMAP Gender and Energy Program is helping to strengthen women's roles as consumers, employees, and entrepreneurs in the energy sector. Six regional programs have been established to enable the World Bank to better respond to the specific gender equality challenges and opportunities of each region. Furthermore, a focus on gender equality has been integrated across ESMAP's other work areas, including renewable energy, energy access, and energy efficiency.

List the key documentation and sources used for the analysis:

- ESMAP FY21-24 Business Plan

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

No additional studies or analytical work required

4. Inclusive sustainable growth, climate change and environment

The ESMAP Business Plan has a strong focus on sustainable energy access, including for marginalized groups. Ensuring affordable, reliable, sustainable and modern energy for all by 2030 remains possible but will require stronger efforts, particularly to reach some of the world's poorest populations (leaving no one behind) and to significantly improve energy systems' sustainability in the context of climate change. The inclusiveness is considered in the support of more well-informed energy planning and the approach to the energy transition and its social-economic benefits, as well as partnership among different stakeholder groups including the private sector.

The 6 programs under the ESMAP's Business Plan will make significant contributions towards sustainable growth, climate change adaptation and mitigation, and a better environment. ESMAP will support innovations in policies, financing and business models to target access for the poor; households in remote areas; refugees and host communities; and, female-headed and other vulnerable households.

Decarbonization of power generation, industries and the public sector is essential to meet the climate change goals. ESMAP will support a Zero Carbon Public Sector by making investments in buildings, transport, and utilities. As the penetration of variable renewable energy (VRE) increases in developing countries often with weak grid, storage can be very useful in adding resilience for extreme weather events like cyclones that can shut down, or reduce, output from wind/solar and may also cause transmission outages. Finally, many of the smart grid technologies for transmission and distribution can be instrumental in building resilience.

The WB Environmental and Social Framework (ESF) includes a policy, procedure and directive that applies to World Bank staff and a set of 10 environmental and social standards that will apply to recipients of loan and grant proceeds. ESMAP risk management is integrated in the overall World Bank Risk Framework. The Risk Framework pillars include the Systematic Operations Risk-Rating Tool (SORT), which rates eight dimensions of risk (Environment and Social; Fiduciary; Institutional Capacity; Macroeconomic; Political and Governance; Sector Strategies and Policies; Stakeholders; and Technical Design).

Specifically for the ESMAP Business Plan 2021-2024, ESMAP has prepared a risk management matrix, which lists, rates and proposes mitigation measures for strategic risks and operational risks.

List the key documentation and sources used for the analysis:

- ESMAP FY21-24 Business Plan
- ESMAP Annual Report
- ESMAP Progress Reports
- ESMAP FY17-20 Portfolio - Background Slides for CG
- Knowledge Hub reports: Tracking SDG7 Report, State of Electricity Access Report (SEAR), Regulatory Indicators for Sustainable Energy (RISE) policy scorecard, Multi-Tier Framework (MTF)

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

No additional studies or analytical work required

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

Governments in low-access countries are responding to the energy access challenge, but policy and regulatory frameworks still need improvements. Reaching the remaining unserved people will require strong policy commitments, mobilization of private financing and comprehensive electrification planning at the national level. The data from the Regulatory Indicators for Sustainable Energy (RISE) series show that countries with an energy access deficit have been consistently improving their policy and regulatory environment for energy access, although substantial room for progress still exists, particularly in Sub-Saharan Africa. The fastest progress has been achieved in improving frameworks for mini-grid and off-grid electrification, but this remains very uneven across countries – with the least electrified and FCV countries lagging behind.

Governments are also increasingly adopting comprehensive national electrification strategies with universal access targets using geospatial data and least-cost planning algorithms that define cost-effective electrification paths. Implementation of these plans, however, often remains challenging, as many governments lack appropriate capacity to effectively support deployment of these technologies and to enable private sector-driven business models.

ESMAP's work to strengthen the foundations of the energy transition supports the financial viability of the sector by: (i) working directly with utilities to improve their capacity and operational and financial performance and so reduce the need for state support; (ii) helping governments reform and reduce subsidies for fossil fuels (along with transitional policies to cushion the impact of subsidy removal where needed and thus enhance sustainability); and, (iii) building regulatory capacity to ensure that adoption of new technologies improves utility performance does not undermine utility revenue streams

Financial Management (FM) aims to provide reasonable assurance that financing provided by the World Bank is used for intended purposes with economy and efficiency, and assists developing partner countries build their FM capacity.

The new umbrella trust fund structure open new possibilities but also increased risks for fraud, corruption or misconduct under ESMAP-financed projects. This due to the management of recipient executed trust fund. With regards to anti-corruption, grants provided out of recipient-executed trust funds incorporate and are subject to the World Bank's Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (Anti-Corruption Guidelines), and the applicable Bank procurement rules (currently set out in the World Bank's Procurement Regulations for IPF Borrowers dated July 2016), which include specific anti-corruption requirements in connection with the procurement and execution of contracts financed under the grant.

List the key documentation and sources used for the analysis:

- ESMAP FY21-24 Business Plan
- Knowledge Hub reports: Tracking SDG7 Report, State of Electricity Access Report (SEAR), Regulatory Indicators for Sustainable Energy (RISE) policy scorecard, Multi-Tier Framework (MTF)

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

No additional studies or analytical work required

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

ESMAP has recently strengthened its work to accelerate efforts to ensure affordable, reliable, sustainable and modern energy for all by 2030 in Africa. This strategic priority goes hand-in hand with the Danish Minister for Development Cooperation's ambition to deliver concrete results on energy

access in Africa. ESMAP have demonstrated positive results to transitioning the energy sector in client countries' and influencing the World Bank's lending portfolio. The Danish contribution will allow ESMAP to continue its work but also be partly preferenced to specific Danish priorities, e.g. through preferenced contributions to the Business Plan 2021-24 .

ESMAP is a relevant partner to support the Danish ambition to accelerate a global green energy transition, in particular through its ability to provide demand-driven advisory services to support renewable energy investments, regulatory reforms and financial policies for energy investment in more than 50 countries.

Denmark will continue to strengthen synergies between WB/ESMAP's country advisory activities and Danish bilateral engagement. For example, Denmark has already experience building direct synergy between ESMAP and the Danish bilateral energy cooperation in Ethiopia on mapping the wind energy potential. In 2019, ESMAP released maps showing offshore wind potential in more than 40 developing countries. The maps were elaborated in collaboration with DTU Wind Energy. The offshore work has also potential for further collaboration with the extensive Danish private sector expertise.

Part of the Danish contribution to ESMAP is preferenced to specific Danish prioritized area. The preferencing is made to ensure sufficient budgets for Danish priority areas in the Business Plan. Prioritized areas will be (i) electricity access, particularly in Africa, (ii) offshore wind, (iii) Energy Subsidy Reform Facility, (iv) Renewable energy supports socio-economic development and action on gender, and (v) coal phase-out and a just transition. Another part of the Danish contribution is preferenced to the Clean Cooking Fund to reflect an increased Danish attention to the challenge of clean cooking.

Denmark will explore possibilities to strengthen collaboration between ESMAP and the Danish Government-to-Government cooperation with the Danish Energy Agency in selected climate front posts during the implementatio of the ESMAP Business Plan.

List the key documentation and sources used for the analysis:

- ESMAP FY21-24 Business Plan
- ESMAP Annual Report
- ESMAP Progress Reports
- ESMAP FY17-20 Portfolio - Background Slides for CG

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

No additional studies or analytical work required

7. Stakeholder analysis

The ESMAP donors are involved through the Consultative Group (CG). The CG patricipated in the development of the Business Plan through brainstorming and consultations. A first daft was subject to brainstorming in February 2020, and a final draft agreed in May at a formal CG meting. The CG is also a forum for regular reporting and discussion on the progress of the implementation of the Business Plan, and for donor coordination, e.g. on possible synergies.

At the country level, the Governments and other national stakeholders are engaged through the WB Country Teams, and the ESMAP programs and activities are thus discussed at part of the ongoing WB dialogue with governments and stakeholders, including development partners.

ESMAP also takes up a key role by bringing global stakeholders from client country, private companies, donors, non-governmental organizations, multilateral agencies and academia to share knowledge in the energy sector. For example, ESMAP is already collaborating with a number of international private sector association such as The African Mini Grid Developers Association (AMDA) and the global association for the off-grid solar energy industry (GOGLA). The key partners and stakeholders in the project are briefly described in DED Annex 2

List the key documentation and sources used for the analysis

- ESMAP FY21-24 Business Plan

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

No additional studies or analytical work required

Annex 2: Partners

1. Summary of stakeholder analysis

Denmark has been a long-time supporter of ESMAP, providing support since 2005. By focusing on the whole energy sector, from improving enabling conditions to actual implementation of energy sector reform, ESMAP has a holistic approach to the implementation of SDG 7 in various developing countries. As a WB-administered program, ESMAP is uniquely positioned to engage in dialogue with policy makers, while leveraging finance and providing technical assistance to meet the demand for energy sector reform in client countries. Furthermore, ESMAP is in a strong position to mobilise other WB units and in-country actors when necessary. ESMAP currently has a broad range of cooperative activities with development partners, for example with the International Energy Agency (IEA) and a consortium of organizations on the Sustainable Energy for All (SE4All) Global Tracking Framework and with the International Renewable Energy Agency (IRENA) on renewable energy resource mapping.

2. Criteria for selecting programme partners

The Danish contribution to ESMAP's 2021-2024 BP is aligned with the strategic objective of inclusive, Sustainable Growth in the Danish strategy for development cooperation and humanitarian assistance "The World 2030." ESMAP's thematic focus areas Energy Access, Renewable Energy and Energy Efficiency coincide with those of the SDG7 "Affordable and clean energy", and ESMAP contributes directly to SDG13 "Climate Action"; key priority areas for Denmark. Understanding energy as an enabling factor, ESMAP also contributes importantly to a range of other SDGs, i.e. poverty reduction (SDG1), health (SDG3), employment and economic growth (SDG8) as well as sustainable cities (SDG11). Furthermore, ESMAP's focus on improving framework conditions and using public funds to catalyze private investments while working in partnerships is all very well aligned with Denmark's strategic priorities. Finally, ESMAP is a key facility in terms of addressing the objective of the Paris Climate Agreement; to keep global temperature increases below 2 degrees Celsius compared to pre-industrial lev

Brief presentation of partners

Table: Overview of key ESMAP Partners

Partner name	Core business	Contribution	Collaboration
<i>What is the name of the partner?</i>	<i>What is the main business, interest and goal of the partner?</i>	<i>What will be the partner's main contribution?</i>	<i>What are the main issues emerging from the assessment of the partner's capacity?</i>
Clean Cooking Alliance (CCA)	The CCA works with a global network of partners to build an inclusive industry that makes clean cooking accessible to the 3 billion people who still live each day without it.	The CCA's work is built around three core pillars: (i) Driving consumer demand for cleaner, more modern stoves and fuels by supporting behavior change and awareness-raising interventions; (ii) Mobilizing investment to build a pipeline of scalable businesses capable of delivering affordable, appropriate, high-quality clean cooking products; and (iii) Fostering an enabling environment for industry growth by advocating for effective and predictable policies, and data.	ESMAP is working with the CCA on developing and implementing communications and outreach strategies and market activities, convening key audiences and sharing knowledge that will help build broader support and investment in the issue, and offering technical advice and expertise on research around clean cooking and MECS. ESMAP is also collaborating with the CCA on the HEPA and High-Level Coalition of Leaders for Clean Cooking, Energy and Health.
Loughborough University/ the Modern Energy Cooking Services (MECS) Program	Loughborough University is an academic institution leading the research consortium of universities on the Modern Energy Cooking Services (MECS) Program funded by the UK Department for International Development (DFID).	The MECS Program aims to create a stronger evidence base for transitioning to modern energy cooking services through socioeconomic and technological innovations to drive the process forward.	ESMAP and Loughborough University are two direct implementers of the MECS Program, with Loughborough University leading the overall program coordination.
Green Climate Fund (GCF)	The Green Climate Fund (GCF) is a global fund created to support the efforts of developing countries to respond to the challenge of climate change.	GCF uses public investment to stimulate private finance, unlocking the power of climate-friendly investment for low emission, climate resilient development. To achieve maximum impact, GCF seeks to catalyse funds, multiplying the effect of its initial financing by opening markets to new investments.	ESMAP is developing a cooling financing facility with the GCF that will mobilize climate finance for sustainable cooling components in WBG projects. The facility is in line with the goals of the GCF to establish a program dedicated to sustainable cooling.
Kigali Cooling Efficiency Program (KCEP)	KCEP is a philanthropic partnership dedicated to accelerating the implementation of the Kigali Amendment to the Montreal Protocol.	KCEP works with its network of grant recipients to help developing countries transition to energy-efficient, climate-friendly, and affordable cooling solutions. Special focus is on the energy efficiency of cooling in order to double the climate benefits and significantly increase the development benefits of the Kigali Amendment to phase down global warming from cooling.	Funding from KCEP enabled ESMAP to establish the Efficient Clean Cooling Program (ECCP) in 2018. ESMAP's partnership with philanthropy through KCEP helps strengthen capabilities, inform our activities, and broaden reach of efforts to advance access to efficient clean cooling.
GOGLA	GOGLA is the global association for the off-grid solar energy industry. Established in 2012, GOGLA now represents over 170 members as a neutral, independent, not-for-profit industry association. Its services assist the industry to build sustainable markets and profitable businesses delivering quality, affordable off-grid	Lighting Global supported GOGLA's creation. Now Lighting Global collaborates with GOGLA on specific tasks, which are likely to continue in the future, including organization of the Global Off-Grid Solar Forum and Expo, the world's premier off-grid solar event, co-publishing the flagship Off-Grid Solar Market Trends Report, and co-leading the Community of Champions, which brings together the	ESMAP has made several joint surveys in relation to Lightning Africa and forms of ongoing collaborations.

Partner name	Core business	Contribution	Collaboration
	<i>electricity products and services.</i>	<i>Governments, the private sector, and development partners.</i>	
AMDA	<i>The African Mini Grid Developers Association (AMDA) is the voice of the mini-grid development industry in Africa to promote the growth and sustainable development of the mini-grid sector and act as a unified focal point for stakeholders to engage the sector. AMDA was established in 2018 and has more than 30 members. AMDA has on the ground presence in 6 countries.</i>	<i>ESMAP's Global Facility on Mini Grids supported the creation of AMDA at the Action Learning Event in Kenya. After AMDA's legal establishment in 2018, it is now a strategic partner in moving the industry forward in 5 key areas to accelerate deployment of mini-grids and attracting financing. .</i>	
WHO	<i>The World Health Organization is a specialized agency of the United Nations that is concerned with international public health. It was established on 7 April 1948, and is headquartered in Geneva, Switzerland. The WHO is a member of the United Nations Development Group.</i>	<i>High</i>	<i>High</i>
Energia	<i>Hosted by Hivos since 2016, ENERGIA wants to contribute to universal, equal and equitable access to and control over sustainable energy for all, putting women at the center of its efforts.</i>	<i>High</i>	<i>High</i>
SE forALL	<i>Sustainable Energy for All (SEforALL) is an international organization working with leaders in government, the private sector and civil society to drive further, faster action toward achievement of Sustainable Development Goal 7 (SDG7), which calls for universal access to sustainable energy by 2030, and the Paris Agreement, which calls for reducing greenhouse gas emissions to limit climate warming to below 2° Celsius.</i>	<i>High</i>	<i>High</i>
IFC EDGE	<i>IFC EDGE Green Buildings Program has developed a green building certification has been developed targeting specifically emerging markets; IFC TechEmerge program supports innovation grants in different sectors</i>	<i>High</i>	<i>High</i>
United Nations Development Programme (UNDP); United Nations Department of	<i>UNDP is the United Nations' global development network. It works in some 170 countries helping to eradicate poverty and reduce inequalities and</i>	<i>High</i>	<i>High</i>

Partner name	Core business	Contribution	Collaboration
<i>Economic and Social Affairs (UNDESA)</i>	<i>exclusion. UNDESA, part of the United Nations Secretariat, is responsible for follow-up to major United Nations summits and conferences.</i>		
Tracking SDG7	<i>Collaboration with the other custodian agencies (IEA, IRENA, WHO, UNSTAT) Collaboration with the SDG7 technical advisory group Collaboration with the UN Regional commissions</i>	<i>High</i>	<i>High</i>
Energy Storage Partnership (ESP)	<i>Energy Storage Partnership (ESP) that will foster international cooperation among 35 partners (IDB, EBRD, IEA, IRENA, UK, India, NRC, ZAE, DTU, among others) to address critical energy storage challenges to enable the rapid uptake of variable renewable energy in developing countries</i>	<i>High</i>	<i>High</i>
Global Wind Energy Council (GWEC)	<i>The international trade association for the wind power industry. GWEC has convened an Offshore Wind Taskforce that has representation from all the major developers and consultant firms.</i>	<i>High</i>	<i>High</i>
PROBLUE	<i>Umbrella multi-donor trust fund, housed at the World Bank, that supports the sustainable and integrated development of marine and coastal resources in healthy oceans.</i>	<i>High</i>	<i>High</i>
3% Club	<i>The 3% Club is a collaboration of governments and supporting organizations that commit to working together to put the world on a path to three percent annual efficiency improvement.</i>	<i>High</i>	<i>High</i>
Clean Energy Ministerial (CEM)	<i>The Electric Vehicles Initiative (EVI) is a multi-government policy forum dedicated to accelerating the introduction and adoption of electric vehicles worldwide.</i>	<i>High</i>	<i>High</i>
Mission Innovation (MI)	<i>Mission Innovation (MI) is a global initiative of 23 countries and the European Commission on behalf of the European Union.</i>	<i>High</i>	<i>High</i>
NREL	<i>NREL is one of the U.S. Department of Energy national laboratories, specialized in renewable energy and energy efficiency research and development.</i>	<i>High</i>	<i>High</i>

Annex 3: Results Framework

- *The Results Framework sets outcome and intermediate outcome level indicators, along with targets for the end of The Business Plan period. ESMAP will report annual progress towards achieving the targets. All baselines are assumed to be 0, unless specified otherwise in the "Notes" section. Reporting will be based on two primary sources of data: the progress/completion reports of each ESMAP-funded grant and own-managed initiative, and the M&E data from the ESMAP-informed World Bank lending operations.*
- *The gender indicators are consolidated under the Foundations for Energy Transitions program but are also repeated under other thematic programs they support, due to the cross-cutting nature of the ESMAP support to gender and energy. The progress towards the targets will be presented under all respective programs but will be treated as the same result to avoid double-counting.*
- *The Results Framework sets the output targets to be achieved by the end of the Business Plan period. The outputs listed in the Results Framework refer to the deliverables of the own-managed knowledge products, unless specified otherwise in the "Notes" section.*
- *Definitions: "WB" – IBRD/IDA engagements and investments; "WBG" – IBRD/IDA and IFC engagements/investments.*

PROGRAM: FOUNDATIONS FOR ENERGY TRANSITION			
OUTCOME 1: Improved affordability of power		Target FY24	NOTES
Outcome indicator 1.1	Reduction in average cost of power supplied	70% of ESMAP supported countries	Affordability is related, among other things, to the cost of power. The average cost of power supplied is expected to come down due to the following factors, which are supported by different elements of ESMAP's work to strengthen the foundations of the energy transition: (i) adoption of least cost generation and transmission planning; (ii) competitive pressure on suppliers selling through electricity markets; (iii) potential to draw upon imports of (lower cost) power; (iv) well-functioning (i.e., efficient) utilities; and (v) robust regulation -- that incentivizes cost reduction and efficient operation. Currently, African countries constitute a large part of the ESMAP portfolio; most of them requested TAs that would, among other things, support activities that facilitate decrease in the cost of their electricity supply in the medium term (e.g., support with least cost planning, support with least-cost access planning, support with improving operational efficiency of utilities support with improved connectivity and power trade, etc.). The target is based on the projected demand for ESMAP grants during the new Business Plan and an expected increase in the number of African countries requesting ESMAP TA support for activities that would reduce their average cost of power. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
OUTCOME 2: Improved financial viability of power sector		Target FY24	NOTES

Outcome indicator 2.1	RISE score on utility creditworthiness reaches the green threshold in all ESMAP supported countries	66.67	The power sector will be financially viable if it is able to cover its costs from revenues generated and not rely on fiscal transfers, i.e., if utilities are well-performing (so not making significant losses) and ideally credit-worthy (so able to borrow on their own). ESMAP's work to strengthen the foundations of the energy transition supports the financial viability of the sector by: (i) working directly with utilities to improve their capacity and operational and financial performance and so reduce the need for state support; (ii) helping governments reform and reduce subsidies for fossil fuels (along with transitional policies to cushion the impact of subsidy removal where needed and thus enhance sustainability); and, (iii) building regulatory capacity to ensure that adoption of new technologies improves utility performance does not undermine utility revenue streams.
<u>OUTCOME 3: Electricity sector carbon intensity reduced</u>		Target FY24	NOTES
Outcome indicator 3.1	Carbon per unit of power generated	768 kg CO2 equivalent/MWh (doubling the annual rate of decline observed for 2014-2019)	For the 135 WB countries that have IEA data, the average carbon intensity calculated using the "OM" IFI data series (weighted by 2015 generation data from the IEA) is 816 tCO2/kWh (as of 11/2019). The CAGR of carbon intensity of non-OECD countries (based on the IEA carbon intensity data history) has decreased at 0.86% per year. Assuming the CAGR of the above mentioned 135 countries were to decrease at 0.015 per year, in 2024 it would be 768.
<u>OUTCOME 4: Fiscal burden of power sector reduced</u>		Target FY24	NOTES
Outcome indicator 4.1	Reduction in fiscal transfers to the power sector in the countries receiving ESMAP support during business plan	Reduced by \$2 billion	The fiscal burden of the power sector will be reduced as utility operational and financial performance improves, reducing the need for state support, and also as subsidies to fossil fuels are phased out. The target is consistent with the expected pipeline for ESMAP grants. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
<u>OUTCOME 5: Improved quality of electricity service</u>		Target FY24	NOTES
Outcome indicator 5.1	Improvement in Doing Business score on Reliability of Supply and transparency of tariff [index 0-8]	1 point improvement against baseline 2.3 in 2020 (doubling the 0.5 point improvement over FY18-20)	Service reliability will result from availability of adequate power and transmission capacity due to improvements in utility performance; regulatory incentives to improve system resilience; and flexibility resulting from development of markets, including for ancillary services.
<u>OUTCOME 6: Increased share of female employees, leaders, entrepreneurs and consumers in the energy sector</u>		Target FY24	NOTES

Outcome indicator 6.1	Increased share of female employees in energy sector WB projects	5 percentage points improvement over baseline for each supported project	The baseline will be calculated for each supported country/project. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
Outcome Indicator 6.2	Increased share of women entrepreneurs in energy sector WB projects	10 percentage points improvement over baseline for each supported project	The baseline will be calculated for each supported country/project. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
Outcome Indicator 6.3	Increased productivity of female farmers and business owners supported by WB energy projects	10 percentage points improvement over baseline for each supported project	The baseline will be calculated for each supported country/project. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
INTERMEDIATE OUTCOME 1. Power system has capacity, flexibility, financial strength to deliver energy transition		Target FY24	NOTES
Intermediate outcome indicator 1.1	Volume of WB lending that contributes to the achievement of the Outcomes through identified aspects	\$50 billion	Historically (over IDA18) ESRF and ABG informed lending as % share of active EEX portfolio was ~3%. Projecting the active portfolio forward over FY21-24, \$50 billion is close to 5% share of the active EEX portfolio. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
Intermediate outcome indicator 1.2	Number of utilities that have implemented process changes consistent with new business models and technologies	30	The target is an estimate of the number of utilities that will request and implement process changes based on the initial pipeline for sector modernization activities. The target reflects the fact that this is a new program and much of the global knowledge needs to be developed. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 1.3	Number of regulators that take account of technology disruptions in regulations issued	30	The target is an estimate of the number of regulatory agencies that will be able to implement regulatory changes in line with sector modernization activities. The target reflects the fact that this is a new program and much of the global knowledge needs to be developed. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 1.4	Number of Coal Regions with implementation strategies developed for Just Transition	2	The target is based on the pipeline of support requested for implementation of strategies for just transition. The indicator will be measured with progress/completion reports on ESMAP-funded grants.

Intermediate outcome indicator 1.5	Percentage of ESMAP-supported countries adopting improved policy and regulation for sustainable energy	100%	Policy and regulation are key to improving the environment for modernization of power sectors. ESMAP expects that given the demand for the support, all countries that receive the ESMAP grants will adopt respective policies and regulations. The indicator will be measured with progress/completion reports on ESMAP-funded grants. Another key indicator for this work is the RISE Index, which covers many aspects of sector modernization. RISE indices will also be used where available/applicable to help illustrate increased country capacity to integrate renewables.
Intermediate outcome indicator 1.6	Increased power trade (between countries)	168 TWh (EAPP, SAR, WAPP, CASA, Pan-Arab)	The target represents the total amount of regionally traded energy facilitated through ESMAP-supported projects and/or countries & regions (e.g. Eastern [WAPP], Western [WAPP] and Southern [SAPP] African power pools, Central and South Asia trade [via CASA-1000], and Middle East region). The target is estimated based on the optimized trade scenarios and the pipeline of projects in the regions targeted for ESMAP support. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
Intermediate outcome indicator 1.7	Number of countries with new markets for energy services	10	The indicator measures the number of countries where the development work on energy/power market frameworks has been supported and/or informed by ESMAP. The targeted number of countries is estimated based on the prospective pipeline of engagements through investment/development policy/technical assistance dialogue. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 1.8	Countries inter-connected and trading	54 (SAPP, EAPP, SAR, WAPP, CASA, Pan-Arab)	The indicator measures the number of countries with established cross-border transmission connections and commercial trading arrangements. The target is based on the existing and prospective ESMAP support through interventions aiming at developing both hard and soft infrastructure in Africa, South Asia, Central Asia, and Middle East/North Africa regions. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
Intermediate outcome indicator 1.9	Number of countries with official plans to reform energy subsidies (including reforming social protection, incorporating energy efficiency measures, and implementing communication campaigns as part of subsidy reform efforts)	20	The target is based on the existing and expected pipeline for country grants and represents an increase over similar target under the FY17-20 Business Plan, based on the results achieved. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 1.10	Number of countries that have strengthened their social protection systems to ensure the poor are not	10	The target is based on the existing and expected pipeline for country grants and represents an increase over similar target under the FY17-20 Business Plan, based on the results achieved. The indicator will be measured with progress/completion reports on ESMAP-funded grants.

	worse off due to energy subsidy reforms		
Intermediate outcome indicator 1.11	Coal capacity reduced through coal plant retirement/repurposing	5 GW	Estimated coal capacity reduced is based on the pipeline of ESMAP support requests for repurposing of coal plants, accounting for the estimated retirement schedule of the plants. The indicator will be measured with progress/completion reports on ESMAP-funded grants
Intermediate outcome indicator 1.12	Private co-financing mobilized	\$5bn	The indicator measures the amount of private sector participation through both the direct Private Co-financing Mobilization (PCM) and Mobilizing Financing for Development (MFD). The target is estimated as private sector financing mobilized through ESMAP-supported and -informed guarantee, investment and development policy operations. The indicator will be measured with data from the ESMAP-supported World Bank lending operations.
<u>INTERMEDIATE OUTCOME 2: World Bank has expanded support to promoting gender equality in the energy sector</u>		Target FY24	NOTES
Intermediate outcome indicator 2.1	% of WB projects supported by ESMAP to meet Gender Tag to close gaps between women and men (in access, entrepreneurship, and employment)	70%	The World Bank Corporate Target on Gender Tag is set at 55% on Gender Tag. Additional ESMAP support will help exceed the Corporate Target. The indicator will be measured with data from the ESMAP-supported World Bank lending operations.
<u>INTERMEDIATE OUTCOME 3: Countries have supported employment opportunities for women in the energy sector</u>		Target FY24	NOTES
Intermediate outcome indicator 3.1	Number of additional countries that have adopted policies or plans to enhance women's employment at the utility level [across recruitment, retention and promotion with a focus on equal pay, training, childcare etc.]	15	The target is based on the existing pipeline for country grants. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 3.2	Number of additional countries supported by WB Development Policy Financing that integrate a focus on closing gender gaps in their energy strategies/policies	7	The target is based on the pipeline of Development Policy Financing operations that can embed a focus on gender equality. The indicator will be measured with data from the ESMAP-supported World Bank lending operations.
Intermediate outcome indicator 3.3	ESMAP-supported decarbonization projects that include a significant women's leadership and employment component/pilot	8	The target is based on the demand estimation for ESMAP support under the Accelerating Decarbonization program. The indicator will be measured with progress/completion reports on ESMAP-funded grants.

Intermediate outcome indicator 3.4	Number of countries where there is a WBG engagement in supporting development of roadmaps including maximizing socio-economic benefits derived from RE development with a focus on women's employment and skills development	20	The target is based on the demand estimation for ESMAP support under the EnRen program. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
<u>INTERMEDIATE OUTCOME 4: Countries have supported women's entrepreneurship in the energy sector and productive uses of energy</u>		Target FY24	NOTES
Intermediate outcome indicator 4.1	Percentage of IDA off-grid electrification operations tackling women's entrepreneurship, and access to finance gaps (Electricity Access program)	100%	The indicator measures the World Bank lending operations that incorporate an ESMAP-informed component supporting women's entrepreneurship. The indicator will be measured with progress/completion reports on ESMAP-funded grants data from the ESMAP-supported World Bank lending operations.
Intermediate outcome indicator 4.2	Strategies adopted at the country level on closing productivity gaps between male and female farmers and business owners (Electricity Access program)	10	The ESMAP-supported grants will be informed by own-managed research that identifies barriers to productivity for female farmer/entrepreneurs. The target is based on demand estimation. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Intermediate outcome indicator 4.3	Percentage of Clean Cooking Fund supported projects that have proactive actions to promote female employment/entrepreneurship and gender co-benefits	100%	Each CCF co-financed WBG/MDBs investment project will require proactive actions to promote female employment/entrepreneurship and gender co-benefits during the design phase as part of the CCF funding requirement. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
Intermediate outcome indicator 4.4	Number of new decarbonization projects with enhanced focus on productivity gaps and livelihoods for women	8	The target is based on the demand estimation for ESMAP support under the Accelerating Decarbonization program (through Clean Cooling Facility and Geothermal Direct Use). The indicator will be measured with progress/completion reports on ESMAP-funded grants.
<u>INTERMEDIATE OUTCOME 5: Countries have adopted strategies to support women in host and marginalized communities as consumers in the energy sector</u>		Target FY24	NOTES
Intermediate outcome indicator 5.1	Countries supported by ESMAP that have integrated electrification of displaced people, host and marginalized communities in electrification programs, with a focus on the needs of women and girls	15	Of the countries with the largest number of people currently without access to electricity, 23 have high- and medium-intensity conflicts or high institutional and social fragility, where displaced people, host and other marginalized communities are priority targets for electrification efforts. ESMAP expects to support World Bank electrification projects in 65 percent of these countries. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.

<u>OUTPUTS: Next Generation Utilities</u>		Target FY24	NOTES
Output 1: Flagship report	Distributed Energy Resources and Digital solutions in developing countries	1	
Output 2: Training	Digital Academy, to identify and transfer emerging global knowledge, best practice, and deliver training in 5 key areas	1	
Output 3: Tools	Standard documentation for procurement of new technologies (including DER, digital solutions)	1	
<u>OUTPUTS: Markets, Connectivity and Trade</u>		Target FY24	NOTES
Output 1: Flagship reports	(i) Design of next generation commercial agreements and market tools; (ii) Increasing system flexibility via efficient ancillary service markets	2	
Output 2: Analyses	Analytical studies on regional power trade	2	
Output 3: Tools	Best practices on wholesale markets, technical and regulatory harmonization for regional power pools	2	
Output 4: Training/events	Knowledge exchange, workshops, trainings on Market deployment, and Power System Planning	2	
<u>OUTPUTS: Energy Subsidy Reform</u>		Target FY24	NOTES
Output 1: Flagship Report	Reforming energy subsidies: Achievements, Setbacks, Lessons Learned and Way Forward	1	
Output 2: Training/Events	Internal and external knowledge exchange fora every year	4	
<u>OUTPUTS: Closing Gender Gaps</u>		Target FY24	NOTES
Output 1: Flagship Report	(i) Gender and Hydropower; (ii) Environmental and social (incl. gender) considerations in offshore floating solar development	2	

Output 2: Analyses	(i) 20 MTF country reports (covering gender gaps); (ii) 2 MTF Insight reports: gender & impact evaluation; (iii) 4 Annual Gender and Access reports	3	
Output 3: Training/Event	(i) Women's leadership in Decarbonization of Public Sector and End Uses in developing countries; (ii) Innovative technology, business, and financing approaches in Clean Cooking - Women's and Men's preferences and needs	2	
OUTPUTS: Support to Coal Regions in Transition		Target FY24	NOTES
Output 1: Platforms	Regional Collaboration Platforms for Coal Regions in Transition (2-3)	2	
Output 2: Training	Coal Regions in Transition Learning Academy (2 deliveries annually)	8	
Output 3: Analyses	Coal plant decommissioning/repurposing studies for 15-20 plants	2	
PROGRAM: ENERGY DATA AND ANALYTICS			
OUTCOME 1: Government counterparts use the generated evidence in policy decisions		Target FY24	NOTES
Outcome indicator 1.1.	World Bank energy lending operations informed by using the Energy Data & Analytics datasets, applications and knowledge reports (including using energy data to close gender gap in energy services)	100%	The Energy Data and Analytics products provide World Bank operational teams with easy access to data on the country contexts to use in project appraisals and can be used as necessary information for better understanding the country context. In addition, the results of the RISE report can be used as outcome indicators for operations with policy components. The indicator will be measured with data from the ESMAP-supported World Bank lending operations.

Outcome indicator 1.2.	New World Bank advisory services and analytics projects supported by ESMAP confirm and illustrate the use of Energy Data & Analytics datasets, applications and knowledge reports	100%	Using the Energy Data and Analytics products in the advisory services and analytics projects supported by ESMAP will support well-informed government policy decisions. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Outcome indicator 1.3.	Evidence of uses of Energy Data & Analytics outputs in well-established global initiatives (publications, indexes, research series, white papers from global institution including World Economic Forum, UN, IRENA, IEA)	10	The target is based on the average of 2-3 global reports and initiatives per year to be informed with the Energy Data & Analytics products. Informing the global initiatives identifies priorities for increased action in support of SDG7. The indicator will be measured with Energy Data & Analytics program progress reports.
OUTPUTS:		Target FY24	NOTES
Output 1	Publication of the Tracking SDG7 Report	4	
Output 2	Publication of RISE analytical platform website	2	
Output 3	Publication of MTF Country Report (focus on gender gaps in each report)	20	
Output 4	Publication of MTF insight on gender and impact evaluation	2	
Output 5	Refugees Data Report Publication	1	
Output 6	Knowledge products (including RBF data platform) on clean cooking	10	
Output 7	Regulatory benchmarking index portal	2	
Output 8	Launching of Global Electrification Platform 2.0 (including 64 countries)	1	
Output 9	Capacity building workshop for GEP	4	
Output 10	Residential customer demand estimation report including algorithm and input data by country	20	
Output 11	Agriculture energy demand estimation report including algorithm and input data by country	20	
Output 12	Dissemination of demand assessment toolkit (survey instrument and open source algorithm)	1	

Output 13	Adding new institutional partners on EnergyData platform that would publish at least 1 dataset each	12-15	
Output 14	Publish analytical pieces on EnergyData platform	15-20	
Output 15	Present Energy Data and Analytics Hub work at WBG/partner/international events and conferences	3-5	
Output 16	Launch of updates to other existing applications (Global Solar Atlas, Global Wind Atlas, etc)	3	

PROGRAM: CLEAN COOKING FUND

<u>OUTCOME 1: Improved access to clean cooking in client countries</u>		Target FY24	NOTES
Outcome indicator 1.1	Number of people who gained access to clean cooking resulting from policies, programs and strategies informed by ESMAP	200 million	Africa Energy Leap program includes a target of access to clean cooking for 300 million people by FY26. ESMAP played a key role conceptualizing the Leap program and the CCF will fully support its implementation as well as eligible cooking projects in other regions. ESMAP will continue providing support to government policies to achieve the Energy Leap targets. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Outcome indicator 1.2	Number of people who gained access to clean cooking resulting from financed projects catalyzed by ESMAP	100 million	Africa Energy Leap program includes a target of access to clean cooking for 300 million people by FY26. ESMAP played a key role conceptualizing the Leap program and the CCF will fully support its implementation as well as eligible cooking projects in other regions. The CCF co-financed projects are expected to mobilize at least \$1 billion public and private investments. Assuming an average switching cost is \$40 per household, an average household size is 4, \$1 billion investments will help 25 million households (100 million people) to gain access to clean cooking. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
Outcome indicator 1.3	Amount of investments mobilized (including both public and private financing)	USD 2 Billion	The Leap program estimated that to help 300 million people to have access to clean cooking, \$3 billion investments (both public and private) are required. The CCF is expected to play a key role to mobilize such investments through leading by example and replication effects. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.

<u>INTERMEDIATE OUTCOME 1: Governments adopt policies and regulations to support public and private sector investment in clean cooking</u>		Target FY24	NOTES
Intermediate outcome indicator 1.1	Number of policies and regulations adopted by governments to support clean cooking market development	30	The CCF includes country/regional grants which will be used to prepare investment projects and improve readiness of implementation including supporting strategies, policies, regulations development to support clean cooking. Furthermore, each WBG/MDBs investment project is expected to have a component on enabling environment to improve policies and regulations. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 1.2	Number of WBG/MDBs investment projects catalyzed by the CCF	30	The CCF includes an innovation fund and a technical assistance program which will catalyze innovative technology, business, and financing approaches. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 1.3	Percentage of CCF-supported projects that have proactive actions to promote female employment/entrepreneurship and gender co-benefits	100%	Each CCF co-financed WBG/MDBs investment project will require proactive actions to promote female employment/entrepreneurship and gender co-benefits during the design phase as part of the CCF funding requirement. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
<u>OUTPUTS:</u>		Target FY24	NOTES
Output 1	Strategies, policies, regulations to support clean cooking	40	Delivered through ESMAP-supported grants.
Output 2	Joint activities by partners for global outreach or country-level program coordination	30	
Output 3	Innovative technology, business, and financing approaches, incorporating both women's and men's preferences and needs	20	Delivered through ESMAP-supported grants.
Output 4	Own-managed knowledge products (including RBF data platform) on clean cooking with one global flagship report every other year.	10	
<u>PROGRAM: ELECTRICITY ACCESS</u>			

<u>OUTCOME 1: People, farmers, businesses and public institutions with electricity access</u>		Target FY24	NOTES
Outcome indicator 1.1	Population with new electricity access resulting from universal access strategies, programs and plans, with specific electricity access targets by 2030, implementation schedules and financing plans, informed by ESMAP during the business plan period	500 million people, of which mini grid/off-grid: 300 million	According to the 2019 SDG7 tracking report, achieving SDG7 will require providing electricity to 1.2 billion people by 2030. Nearly all of these people (95%) are in the top 50 countries with the largest numbers of people without access today. ESMAP aims to inform universal access strategies, programs and plans in these countries resulting in electricity access for about 40 percent of the 1.2 billion people by 2030. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Outcome indicator 1.2	30 million households and/or micro and small enterprises and small-holder farmers with new electricity access through ESMAP-informed projects/programs funded through the World Bank, Governments, development partners and associated private sector investments (measured as targets in operations approved during the business plan period)	150 million people, of which mini grid/off-grid: 90 million	ESMAP expects to inform World Bank operations in 25 of the top 50 countries with the largest populations of people currently without access to electricity. There are currently around 450 million people without access to electricity in these 25 countries. World Bank projects aim to connect about 1/3rd of these 450 million people. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
Outcome indicator 1.3	Schools, health clinics and other community facilities electrified through ESMAP-informed projects/programs funded through the World Bank, Governments, development partners and associated private sector investments (measured as targets in operations approved during the business plan period)	1 million public institutions	The World Bank electricity access operational portfolio shows that the average number of people served by a community-facility ranges from around 60 people in rural areas to over 1,000 in peri-urban areas, with the typical community-facility serving an average of about 150 people. This equates to around 1 million public institutions serving the 150 million people in the countries referenced in Outcome Indicator 2. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
Outcome indicator 1.4	Electricity access financing mobilized (through ESMAP-informed IDA, IBRD, climate finance and associated Government, development partner programs and private sector investments)	US\$ 30 billion, of which US\$10 billion private sector	Using cost estimates from the IEA and Bloomberg New Energy Finance (\$281 investment cost per person for mini grids, \$100 investment cost per person for SHS, and \$187 investment cost per person for the main grid), the total cost of providing electricity to the 150 million people referenced under Outcome Indicator 2 under a least-cost approach would be \$30.5 billion. The World Bank expects to leverage every \$1 of its investment to attract \$1 of co-financing from the private sector and \$1 of co-financing from governments and development partners. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
<u>INTERMEDIATE OUTCOME 1. Countries with supportive enabling environment for an inclusive and impactful electrification</u>		Target FY24	NOTES

Intermediate outcome indicator 1.1	Number of countries supported by ESMAP (technical assistance and operational support for pipeline development and implementation) with electricity access deficit, which officially adopted integrated electrification strategies/least cost plans, combining grid, mini grid and off-grid technologies, with universal access targets, implementation schedule and modalities and financing plans	50	There are currently 63 countries that have more than half a million people living without access to electricity. ESMAP aims to support integrated electrification strategies and least-cost planning in at least 80 percent of these countries. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Intermediate outcome indicator 1.2	Countries, supported by ESMAP, that have integrated productive use interventions in electrification projects/programs and/or built synergies across energy access and agriculture interventions to support small-holder farmers	20	ESMAP aims to support productive use interventions in 80% of the 25 countries referenced in Outcome Indicator 2, with a particular focus on operations that have large off-grid and mini grid components. The indicator will be measured with progress/completion reports on ESMAP-funded grants. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Intermediate outcome indicator 1.3	Countries that have adopted and launched implementation of a scalable and sustainable model for electrification of public institutions, supported by ESMAP	20	ESMAP aims to support scalable and sustainable models for electrification of public institutions in 80% of the 25 countries referenced in Outcome Indicator 2. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Intermediate outcome indicator 1.4	Countries, supported by ESMAP, that have adopted integrating electrification of displaced people, host and other marginalized communities in electrification programs, with a focus on the needs of women and girls	15	Of the countries with the largest number of people currently without access to electricity, 23 have high- and medium-intensity conflicts or high institutional and social fragility, where displaced people, host and other marginalized communities are priority targets for electrification efforts. ESMAP expects to support World Bank electrification projects in 65 percent of these countries. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Intermediate outcome indicator 1.5	Countries, supported by ESMAP, that have adopted pro-poor energy access subsidy and delivery model approaches	20	ESMAP aims to help World Bank projects adopt pro-poor energy access subsidy and delivery model approaches in 80% of the 25 countries referenced in Outcome Indicator 2. This relates in particular to the mini grid and off-grid program. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.

Intermediate outcome indicator 1.6	Percentage of IDA off-grid operations tackling women's entrepreneurship, and access to finance gaps	100	World Bank projects in all 25 countries referenced in Outcome Indicator 2 are expected to address women's entrepreneurship and access to finance gaps. The indicator measures the World Bank lending operations that incorporate an ESMAP-informed component supporting women's entrepreneurship. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work and data from the ESMAP-supported World Bank lending operations.
Intermediate outcome indicator 1.7	Strategies adopted at the country level on closing productivity gaps between male and female farmers and business owners	10	ESMAP aims to support 40% of the countries referenced in Outcome Indicator 2 to close productivity gaps between male and female farmers and business owners. The ESMAP-supported grants will be informed with the own-managed research that identifies barriers to crop productivity for female famers. The target is based on demand estimation. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
OUTPUTS:		Target FY24	NOTES
Output 1	National electrification strategies and plans, based on geospatial least-cost modeling, integrating grid, mini grid and off-grid technologies developed with ESMAP support, and using technical resources and support provided by ESMAP's geospatial electrification team.	30	Outputs represent technical advice provided to Governments and operations and knowledge products issued to scale-up electrification efforts in inclusive and impactful manner.
Output 2	Country-specific policy and regulatory frameworks, business models and/or financing instruments developed with ESMAP support for scaling up mini grid and off-grid electrification.	25	
Output 3	Designed and piloted distinct financing innovations aiming to leverage commercial debt, crowd in private sector finance, and/or sustainably provide demand side subsidies/consumer financing.	6	
Output 4	Business models developed and piloted for sustainable electrification of displaced population and host communities	3	

Output 5	Sustainable business model for electrification of public institutions, leveraging private sector, developed, piloted and results documented	3
Output 6	Approaches for stimulating demand and productive use developed, piloted and results documented	3
Output 7	At least 6 global knowledge reports covering mini grids, off-grid solar, productive use, public institution electrification, subsidies and other pertinent topics	6
Output 8	At least 6 global knowledge events covering mini grids, off-grid solar, productive use, public institution electrification, subsidies and other pertinent topics	6
Output 9	Delivery of one knowledge product or event related to gender by access program per year (duration of business plan)	4

PROGRAM: RENEWABLE ENERGY

<u>OUTCOME 1: Governments adopt policies and plans to support a major scale-up of RE</u>		Target FY24	NOTES
Outcome Indicator 1.1	RE capacity additions under government policies and plans up to 2030, of which:	60 GW	Target estimates are based on projections of policy commitments under the current engagements with countries, and the demand estimate for additional countries. The target represents the incremental increase in announced policy commitments that have benefited from ESMAP-funded work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
	1.1.1: Offshore wind in government policies and plans to 2030	20 GW	
<u>OUTCOME 2: Stimulation of public and private investment in RE and ancillary infrastructure</u>		Target FY24	NOTES

Outcome indicator 2.1	RE capacity commitments (direct and enabled through ancillary infrastructure and grid improvements) under WBG financed projects, of which:	32.5 GW	Target estimates are based on projections under the current engagements with countries, and the demand estimate for additional countries. In some countries, the target can represent a subset of policy commitments under Outcome Indicator 1.1. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
	2.1.1: Capacity commitments under EnRen-supported financed projects	20 GW	
	2.1.2: Innovative solar capacity commitments under financed projects	3 GW	
	2.1.3: Hydropower capacity commitments under financed projects	4.5 GW	
	2.1.4: Offshore wind capacity commitments under financed projects	5 GW	
Outcome indicator 2.2	Volume of financing leveraged for projects that increase RE capacity, of which:	\$25 billion	The total financing leveraged is the sum of World Bank and private financing.
	2.2.1: WB financing leveraged	\$3 billion	The indicator estimates the volume of the World Bank lending necessary for the RE capacity commitments under Outcome Indicator 1.1 and is based on the current pipeline of engagements and demand estimate for additional countries. The indicator will be measured with data from the ESMAP-supported World Bank lending operations.
	2.2.2: Private financing leveraged	\$22 billion	The indicator measures the amount of private sector participation through both the direct Private Co-financing of the World Bank lending projects, and private investments expected as a result of pre-feasibility studies, preparation of auctions etc. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
Outcome indicator 2.3	Battery storage capacity commitments under financed projects	15 GWh	Target estimates are based on projections under the current engagements with countries, and the demand estimate for additional countries. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
<u>INTERMEDIATE OUTCOME 1: WB is supporting RE scale-up in a wide range of countries following the EnRen approach</u>		Target FY24	NOTES

Intermediate outcome indicator 1.1	Number of countries where there is a WB engagement in increasing the penetration of RE in generation mix	30	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, IFC engagements etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Intermediate outcome indicator 1.2	Number of countries where active WB engagement on geothermal power is newly established	3	
<u>INTERMEDIATE OUTCOME 2: Countries have included innovative technologies in their policies and plans</u>		Target FY24	NOTES
Intermediate outcome indicator 2.1	Number of countries where there is WBG engagement on battery storage	40	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, IFC engagements etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
Intermediate outcome indicator 2.2	Number of countries where there is WBG engagement on innovative solar technologies	12	
Intermediate outcome indicator 2.3	Number of countries where there is WBG engagement on offshore wind	10	
<u>INTERMEDIATE OUTCOME 3: Countries are developing the next generation of hydropower projects</u>		Target FY24	NOTES
Intermediate outcome indicator 3.1	Number of countries where there is WB engagement under the Hydropower Development Facility	10	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, IFC engagements etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
<u>INTERMEDIATE OUTCOME 4: RE scale-up helps countries support socio-economic development and action on gender</u>		Target FY24	NOTES
Intermediate outcome indicator 4.1	Number of countries where there is WBG engagement in supporting development of roadmaps including maximizing socio-economic benefits derived from RE development with a focus on women's employment and skills development	20	The target is based on the demand estimation for ESMAP support under the EnRen program. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
<u>OUTPUTS: Energizing Renewables</u>		Target FY24	NOTES

Output 1	Flagship report: Sustainable deployment of solar (grid and off-grid) and wind projects (EnRen guidelines)	1	
Output 2	Events: Workshops to disseminate the EnRen integrated approach and promote the related support	2	
Output 3	Report: Lessons learnt from the Noor Ouarzazate complex in Morocco (lessons for EnRen approach)	1	
Output 4	Tool: Diagnostic tool to identify standardized solutions consistent with the EnRen methodology	1	
Output 5	Tool: E-tendering platform for standardized competitive procurement of RE projects	1	
Output 6	Report: Assessment of geothermal drilling costs	1	
Output 7	Event: Gender in geothermal workshops	1	
Output 8	Report: Lesson learnt from cumulative environmental and social impacts from geothermal development in Turkey	1	
OUTPUTS: Energy Storage		Target FY24	NOTES
Output 9	Flagship report: lessons learned from WB projects and pilot projects	1	
Output 10	Reports: Outputs developed under the Energy Storage Partnership	1	
Output 11	Report: Social development framework and sustainable manufacturing practices for batteries	1	
Output 12	Events: Convene exchanges under the Clean Energy Ministerial campaign on energy storage	1	
Output 13	Events: Technology-focused workshops and regional exchange events	4	
OUTPUTS: Innovative solar		Target FY24	NOTES

Output 14	Flagship report: Distributed solar PV in developing countries	1	
Output 15	Report: Benefits of hybridization of hydropower with solar PV	1	
Output 16	Report: Environmental and social considerations for offshore floating PV development (social considerations to include gender aspects)	1	
Output 17	Events: Global knowledge sharing on innovative solar (as a part of EnRen workshops/consultations)	1	
Output 18	Databases: Floating solar potential on existing hydropower reservoirs (geospatial database) and nearshore floating solar potential (geospatial database)	2	
OUTPUTS: Offshore Wind		Target FY24	NOTES
Output 19	Flagship report: Key factors for successful development of offshore wind in emerging markets	1	
Output 20	Report: Environmental framework for development of offshore wind	1	
Output 21	Report: Social framework for development of offshore wind	1	
Output 22	Event: Global seminar and knowledge sharing on offshore wind development (location TBD)	1	
OUTPUTS: Hydropower		Target FY24	NOTES
Output 23	Report: Risk management relating to hydrology/construction.	1	
Output 24	Report: Private Sector Financing	1	
Output 25	Report: Gender & Hydropower	1	
Output 26	Events: Global conferences and seminars	2	

Output 27	Database: Global compendium of hydropower dams	1	
Output 28	Report: Sustainability protocol	1	
PROGRAM: ACCELERATING DECARBONIZATION			
<u>OUTCOME 1: Governments adopt policies and plans to accelerate decarbonization</u>		Target FY24	NOTES
Outcome indicator 1.1	Estimated GHG emissions reduced or avoided under government policies and plans up to 2030 (lifetime MtCO2e)	1,100	Target estimates are based on projections of policy commitments under the current engagements with countries, and the demand estimate for additional countries. The target represents the incremental increase in announced policy commitments that have benefited from ESMAP-funded work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
<u>OUTCOME 2: Stimulation of public and private investment to accelerate decarbonization</u>		Target FY24	NOTES
Outcome indicator 2.1	Expected GHG emissions reductions under WBG financed projects (lifetime MtCO2e)	360	The target is based on the GHG emissions reductions from the World Bank's lending portfolio of demand side EE projects, extrapolating to the projected demand for ESMAP support. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
Outcome indicator 2.2	Number of WBG financed projects that reduce or avoid GHG emissions, of which:	59	The target is based on the estimated pipeline of expected World Bank Group financing operations (including IFC) from both ESMAP grants and engagements stimulated with ESMAP own-managed outputs. More than one operation can take place in a country. The indicator will be measured with the data from the ESMAP-supported World Bank lending operations.
	Number of projects financed that target decarbonization in the public sector	22	
	Number of projects financed that include use of innovative technologies in industry	10	
	Number of projects financed that are "cooling informed"	20	
	Number of projects financed that include green hydrogen	4	
	Number of projects financed that include geothermal direct use	4	

Outcome indicator 2.3	Volume of financing leveraged for projects that support accelerated decarbonization, of which:	\$3.6 billion	The total financing leveraged is the sum of World Bank Group, and private and concessional financing.
	2.3.1: WBG financing leveraged	\$2.5 billion	The indicator estimates the volume of the World Bank lending necessary for the RE capacity commitments under Outcome Indicator 1.1 and is based on the current pipeline of engagements and demand estimate for additional countries. The indicator will be measured with data from the ESMAP-supported World Bank lending operations.
	2.3.2: Climate finance leveraged	\$300 million	The indicator measures the amount of additional concessional funding leveraged, and the target is based on the existing pipeline. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
	2.3.3: Private financing leveraged	\$800 million	The indicator measures the amount of private sector participation through both the direct Private Co-financing of the World Bank lending projects, and private investments expected as a result of pre-feasibility studies, preparation of procurements etc. The indicator will be measured with progress/completion reports on ESMAP-funded grants and data from the ESMAP-supported World Bank lending operations.
<u>INTERMEDIATE OUTCOME 1:World Bank Group has expanded its support to a wide range of client countries to achieve Zero Carbon Public Sector</u>		Target FY24	NOTES
Intermediate outcome indicator 1.1	Number of countries with WBG engagement on decarbonizing the public sector	20	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, IFC engagements etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
<u>INTERMEDIATE OUTCOME 2: World Bank Group has expanded its support to a wide range of client countries on access and scale up efficient, clean cooling</u>		Target FY24	NOTES
Intermediate outcome indicator 2.1	Number of countries where there is active WBG engagement on sustainable cooling	18	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, IFC engagements etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
<u>INTERMEDIATE OUTCOME 3:World Bank Group has expanded its support on technological innovation in industrial decarbonization</u>		Target FY24	NOTES

Intermediate outcome indicator 3.1	Number of innovative technologies that are part of active WBG engagements on industrial decarbonization	5	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, IFC engagements etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
<u>INTERMEDIATE OUTCOME 4: World Bank Group has expanded its support on Green Hydrogen and/or fuel cell technologies</u>		Target FY24	NOTES
Intermediate outcome indicator 4.1	Number of countries including green hydrogen and/or fuel cell technologies in their decarbonization strategies	8	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, IFC engagements etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
<u>INTERMEDIATE OUTCOME 5: World Bank Group has expanded its support to develop Geothermal Direct Use</u>		Target FY24	NOTES
Intermediate outcome indicator 5.1	World Bank Group is supporting wide range of client countries to develop Geothermal Direct Use	6	The target is based on the estimates of countries that have requested new/additional World Bank engagements (advisory services, RETFs, etc.) achieved as a result of demand stimulation from ESMAP own-managed work. The indicator will be measured with progress/completion reports on ESMAP-funded grants and own-managed work.
<u>INTERMEDIATE OUTCOME 6: Countries have supported women's entrepreneurship in the energy sector and productive uses of energy</u>		Target FY24	NOTES
Intermediate outcome indicator 6.1	ESMAP-funded decarbonization projects that include a significant women's leadership and employment component/pilot	8	The target is based on the demand estimation for ESMAP support under the Accelerating Decarbonization program. The indicator will be measured with progress/completion reports on ESMAP-funded grants.
Intermediate outcome indicator 6.2	Number of projects with enhanced focus on productivity gaps and livelihoods for women	8	The target is based on the demand estimation for ESMAP support under the Accelerating Decarbonization program (through Clean Cooling Facility and Geothermal Direct Use). The indicator will be measured with progress/completion reports on ESMAP-funded grants.
<u>OUTPUT: Zero Carbon Public Sector</u>		Target FY24	NOTES
Output 1	Flagship report: Opportunities for achieving decarbonization in the public sector	1	
Output 2	Flagship report: The economics of electric mobility	1	

<u>OUTPUT: Industrial Decarbonization</u>		Target FY24	NOTES
Output 3	Flagship report: Technology innovations for industrial decarbonization in developing countries	1	
Output 4	Events: Two dissemination workshops on results of global studies	2	
<u>OUTPUT: Efficient and Clean Cooling</u>		Target FY24	NOTES
Output 5	Flagship report: Access to energy and cooling (sustainable cold chains)	1	
Output 6	Report: Brief(s) on innovative sustainable cooling technologies and systems	1	
Output 7	Events: Workshops/exchanges on efficient, clean cooling in developing countries	2	
<u>OUTPUT: Geothermal Direct Use</u>		Target FY24	NOTES
Output 8	Flagship report: Global market analysis for direct use	1	
Output 9	Development plans: Two regional plans	2	
Output 10	Events: Two regional workshops	2	
<u>OUTPUT: Green Hydrogen</u>		Target FY24	NOTES
Output 11	Flagship Report: Green hydrogen for multi-sectoral deep decarbonization of developing countries (co-led between industrial decarbonization and green hydrogen programs)	1	
Output 12	Report: Technical safety and project design framework	1	
Output 13	Events: Technology-focused workshops and regional exchange events	2	
<u>OUTPUT: All</u>		Target FY24	NOTES

Output 14	Workshop on women's leadership in decarbonization of public sector and end uses in developing countries	1	
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Annex 4: Budget details and donor contributions

The overall budget target for the ESMAP Business Plan FY21-24 is approximately USD 1.3 billion, of which USD 540 million would be for Bank-executed activities (primarily advisory services and analytics) and USD 740 million would be for Recipient-executed grants (primarily co-financing IBRD/IDA operations). If the recipient-executed grants, the largest components are USD 450 million for the Clean Cooking Fund and about USD 100 million for the COVID-19 response to provide electrification of health facilities through renewable energy.

Table 1 describes the proposed ESMAP programs along with the respective budgets and selected program outcome indicators and targets.

Table 1: Proposed budget for Business Plan 2021-2024.

PROGRAM	Bank-executed (own managed and grants)	Recipient- Executed Grants	Selected Results Framework Indicators and Targets
Foundations for the Energy Transition	USD 177 mln	USD 36 mln	<ul style="list-style-type: none"> Reduction in average cost of power supplied in 70% of ESMAP supported countries RISE score on utility creditworthiness reaches the green threshold (66.67) in all ESMAP supported countries 768 kg CO2 equivalent/MWh carbon per unit power generated (doubling the annual rate of decline observed for 2014-2019) USD 2 billion reduction in fiscal transfers in the countries receiving ESMAP support during business plan 1-point improvement in Doing Business score on Reliability of Supply and transparency of tariff against baseline 2.3 (doubling the 0.5-point improvement over FY18-20) USD 50 billion World Bank lending leveraged for improved affordability, improved financial viability, reduced carbon intensity, transition in coal regions, reduced fiscal burden, and improved quality of electricity service 5 GW of coal capacity reduced through coal plant retirement/re-purposing At least 20 countries with official plans to reform energy subsidies 2 Coal Regions with implementation roadmaps developed for Just Transition 15 additional countries implementing initiatives to enhance women's employment at the utility level 70% of World Bank operations supported by ESMAP meet the Gender Tag to close gaps between women and men
Utilities for the Energy Transition	USD 30 mln		
Energy Markets, Connectivity and Trade	USD 30 mln	USD 20 mln	
Energy Subsidy Reform Facility	USD 30 mln	USD 10 mln	
Closing Gender Gaps in Energy Sector	USD 18 mln		
Supporting Coal Regions in Transition	USD 44 mln	USD 6 mln	
Annual Block Grants	USD 25 mln		
<i>Program Sub-Total (BETF+RETF)</i>	USD 213 mln		
Clean Cooking Fund	USD 50 mln	USD 450 mln	<ul style="list-style-type: none"> 200 million people gaining access to clean cooking resulting from policies, programs and strategies 100 million people gaining access to clean cooking resulting from financed projects USD 2 billion investments mobilized (including both public and private financing)
<i>Program Sub-Total (BETF+RETF)</i>	USD 500 mln		
Electricity Access	USD 90 mln	USD 140 mln	<ul style="list-style-type: none"> 500 million people with new electricity access resulting from universal access strategies, programs and plans informed by ESMAP, of which mini-grid/off-grid: 300 million 150 million people with new electricity access through projects funded through the World Bank, Governments, development partners and associated private sector investments, of which mini-grid/off-grid: 90 million 1 million public institutions (schools, health clinics and other community facilities) electrified through ESMAP-informed projects funded through the World Bank, Governments, development partners and associated private sector investments USD 30 billion electricity access financing mobilized, of which USD 10 billion from private sector
<i>Program Sub-Total (BETF+RETF)</i>	USD 230 mln		
Renewable Energy	USD 78 mln	USD 105.5 mln	<ul style="list-style-type: none"> 60 GW RE capacity additions under government policies and plans up to 2030, of which 20 GW from Offshore Wind 32.5 GW RE capacity commitments (direct and enabled through ancillary infrastructure and grid improvements) under financed projects <ul style="list-style-type: none"> 20 GW from En-Ren (solar, on-shore wind, geothermal) 3 GW from Innovative Solar 4.5 GW from Hydropower Development Facility 5 GW from Offshore Wind USD 25 billion financing leveraged for projects that increase RE capacity

PROGRAM	Bank-executed (own managed and grants)	Recipient- Executed Grants	Selected Results Framework Indicators and Targets
Energizing Renewables En-Ren (formerly SRMI)	USD 22.5 mln	USD 63.5 mln	<ul style="list-style-type: none"> - USD 3 billion WB financing leveraged - USD 22 billion private financing leveraged • 15 GWh battery storage capacity commitments under financed projects
Energy Storage	USD 18 mln	USD 12 mln	
Innovative Solar	USD 7.5 mln		
Offshore Wind	USD 10 mln		
Hydropower Development Facility	USD 20 mln	USD 30 mln	
<i>Program Sub-Total (BETF+RETF)</i>	USD 183.5 mln		
Accelerating Decarbonization	USD 84 mln	USD 10 mln	<ul style="list-style-type: none"> • 11,400 lifetime MtCO₂e expected GHG emissions reduced or avoided under government policies and plans up to 2030 • 470 lifetime MtCO₂e expected GHG emissions reductions under financed projects • 73 projects financed that reduce or avoid GHG emissions <ul style="list-style-type: none"> - 25 projects target decarbonization in the public sector - 15 projects include use of innovative technologies in industry - 25 projects are "cooling informed" - 4 projects include green hydrogen - 4 projects include geothermal direct use • USD 4.55 billion of financing leveraged for projects that support accelerated decarbonization <ul style="list-style-type: none"> - USD 3.1 billion WB financing leveraged - USD 350 million private financing leveraged - USD 1.1 billion private financing leveraged
Zero Carbon Public Sector	USD 26 mln		
Industrial Decarbonization	USD 18 mln	USD 7 mln	
Efficient and Clean Cooling	USD 25 mln		
Geothermal Direct Use	USD 3 mln	USD 3 mln	
Green Hydrogen	USD 12 mln		
<i>Program Sub-Total (BETF+RETF)</i>	USD 94 mln		
Energy Data and Analytics	USD 41 mln		
<i>Program Sub-Total (BETF+RETF)</i>	USD 41 mln		
ESMAP Program Management and Administration*	USD 20 mln		
<i>Program Sub-Total (BETF+RETF)</i>	USD 20 mln		
ESMAP TOTAL	USD 540 mln	USD 741.5 mln	
GRAND TOTAL	USD 1,281.5 bn		

*Covers the following items: Managing the Program, Personnel management, Trust fund administration and donor relations, Consultative Group meetings and Technical Advisory Group, M&E, Communications, and Knowledge Management.

Table 2: Status of ESMAP's Donor Contribution and Pledges (as of April 15, 2020)

#	Donor	Paid Contributions (Million USD)	Unpaid Contributions (Million USD)	Total Contribution (Million USD)	Notes
1	Australia	1.15	---	1.15	Preference for VRE Grid Integration/Pacific Islands Sustainable Energy Project
2	Austria	1.71	---	1.71	Contribution of EUR 1.5 million with preference for ESMAP's Hydropower Development Facility
3	Canada	2.30	---	2.30	Contribution transferred from Canada's Donor Balance Account (DBA) at the World Bank
4	ClimateWorks	1.50	1.50	3.00	Preference for Efficient Clean Cooling, allocated to Efficient and Sustainable Buildings program (\$3 million)
5	Denmark	21.74	0.28	22.02	Danish contribution from EU preference for Energy Subsidy Reform of DKK 54,236,144 (EUR 7,267,643 or USD 9,664,419), of which DKK 52,296,560 has been paid. DKK 6 million preference for Energy Subsidy Reform DKK 11.5 + DKK 5 million preference for Renewable Energy/Resource Mapping/Ethiopia DKK 14 million preference for Energy Access/Mini-Grids
6	European Union	7.30	6.94	14.24	Preference for Energy Sector Governance, Markets and Planning/Iraq (\$14.58 million)
7	Finland	0.14	---	0.14	Preference for Energy Efficient Cities/Ukraine
8	Germany - BMZ	3.36	1.63	4.99	
9	Germany - BMUB	8.46	---	8.46	EUR 8 million preference for Energy Subsidy Reform
10	Iceland	2.73	0.30	3.03	Preference for Renewable Energy/Geothermal Preference of USD 0.4 million for Hydropower Development Facility
11	Italy	6.05	---	6.05	Preference for SE4All Knowledge Hub/MTF Preference for Tunisia (\$6.04 million)
12	Luxembourg	1.12	---	1.12	Preference for Efficient and Clean Cooking and Heating/Lao PDR
13	Netherlands	53.08	28.00	81.08	Additional - transfer from ASTAE: USD 52,310.22

#	Donor	Paid Contributions (Million USD)	Unpaid Contributions (Million USD)	Total Contribution (Million USD)	Notes
					Cofinancing USD 44.0 million for Regional Off-Grid Electrification Project (ROGEP)
14	Norway – MFA	4.77	---	4.77	NOK 20 million preference for Energy Subsidy Reform NOK 15 million preference for SE4ALL Knowledge Hub/RISE, Renewable Energy/VRE, Energy Access/Lighting Africa, and Governance, Markets and Planning
15	Norway – Norad	30.34	---	30.34	NOK 25 million preference for Energy Subsidy Reform NOK 30 million preference for Energy Subsidy Reform 2019 contribution for NOK 210 with NOK 30 million for “core/flexible” funding and preferences for: (a) NOK 90 million for Clean Cooking Fund; (b) NOK 50 million for Powering Past Coal; (c) NOK 10 million for Energy Storage Partnership; and (d) NOK 30 million for Hydropower Development Facility 2020 Norad preference for: (a) NOK 30 million for core; (b) NOK 90 million for Clean Cooking Fund; (c) NOK 50 million for Powering Past Coal; (d) NOK 10 million for Energy Storage; and (e) NOK 30 million for Hydropower.
16	Rockefeller Foundation	1.35	0.30	1.65	Preference for SE4ALL Knowledge Hub/Multi-Tier Framework for Measuring Access/Kenya, India Preference of \$1.4 million for <i>Mainstreaming Electricity Demand and Productive Use Stimulation in National Electrification Programs</i>
17	Sweden	28.35	---	28.35	SEK 2.177 million for Efficient & Sustainable Buildings in Moldova. Additional - transfer from ASTAE: USD 25,719.58
18	Switzerland	14.05	---	14.05	Core funding of USD 8.05 million with preferences for Energy Subsidy Reform (USD 1 million), Energy Efficient Cities (\$2 million), Hydropower (\$1 million); and ESMAP Knowledge Exchange events (\$50,000) Additional funding (\$4 million) with preference for Energy Efficiency – Kyrgyz Republic Preference of \$1 million for Energy Access for Host Communities & Refugees Program and \$1 million for FY21-24 Business Plan

#	Donor	Paid Contributions (Million USD)	Unpaid Contributions (Million USD)	Total Contribution (Million USD)	Notes
19	United Kingdom - BEIS	22.59	32.36	54.95	Preference of GBP 15.0 million (Promissory Notes) for Industrial Decarbonization, allocated to Renewable Energy (\$9 million) and Energy Efficiency City Services (\$9 million) GBP 19.15 million (Promissory Notes) preferencing energy transition programmes, including transitions from coal and towards offshore wind, with allocations to renewable energy (including offshore wind) and energy efficiency activities to all regions
20	United Kingdom - DfID	35.78	8.34	44.12	GBP 3 million preference for countries in Cities and Infrastructure for Growth program, particularly Myanmar, Uganda and Zambia. Cofinancing of geothermal activities: GBP 8.5 million in the Commonwealth of Dominica and GBP 3.6 million in Saint Lucia. Additional - transfer from ASTAE: USD 25,507.07 Preference for: (a) GBP 1 million for clean cooking; (b) GBP 5 million for mini-grids; (c) GBP 0.4 million for Lebanon Electricity Subsidies 2020 preference of GBP 2.7 million for Clean Cooking Fund
21	United Kingdom -FCO	---	2.49	2.49	Preference of GBP 2.0 million for China coal transition
	TOTAL	247.87	82.14	330.01	
	Opening Balance on July 1, 2016			11.11	Start of FY17-20 Business Plan
	World Bank			1.32	Annual contributions, FY17-20
	GRAND TOTAL			342.44	

Note: Totals may not add due to rounding. Conversion to U.S. dollars from contributing currency at foreign exchange rate from the World Bank Group's financial systems. The financial portfolio of development partners, including those of ESMAP, is available on the World Bank's Development Partner Center (DPC)

Annex 5: Risk Management Matrix

ESMAP Risk Framework		
Risk Description	Risk Rating	Proposed Mitigation Measures
I. Strategic Risks		
<p>1. ESMAP's work not being guided by clear strategic framework.</p> <p>2. ESMAP fails to direct resources, timely, efficiently or appropriately.</p> <p>3. The Bank's existing capital base, in particular, IBRD capital, is not adequate to meet borrower demands for loans, thus decreasing the leverage potential of ESMAP.</p>	<p>Low</p> <p>Moderate</p> <p>Moderate</p>	<ul style="list-style-type: none"> CG provides guidance and advice, meeting annually to review the strategic direction, achievements, use of resources and funding requirements. TAG provides informed, independent opinions to the CG about the purpose, strategic direction, and priorities, as well as provides advice and suggestions on current and emerging global energy sector issues likely to impact ESMAP's client countries. For global and regional activities, strategic alignment with the Bank's corporate objectives (approved Bank/regional/sector strategies). For country-specific activities, strategic alignment with Country Partnership Framework (CPF) or Country Engagement Note (CEN). IDA 18 replenishment of \$75 billion with a proposal to leverage IDA's equity by blending donor contributions and the Bank's internal resources with funds raised through debt markets, based on the recent triple-A rating that IDA received from credit agencies. Energy GP provides: (a) increased focus on IDA-18 delivery; (b) enhanced efforts to mobilize concessional funds (e.g., climate finance) for Middle Income Countries (MICs); and (c) commitment to the "cascade" principles⁵ to increase leverage of non-Bank, commercial finance.
<p>4. Roles & Responsibilities are unclear, diffused or unknown roles and responsibilities lead to diminished performance or lead to potential, real or perceived conflicts of interest.</p>	<p>Low</p>	<ul style="list-style-type: none"> ESMAP follows the Bank's Accountability and Decision-Making (ADM) framework which: (a) clarifies roles for key decisions; (b) establishes disciplined decision processes; and (c) modifies behaviors and ways of working. The Bank's Conflicts of Interest Office, within the General Counsel's office, assists staff and management in

⁵ The "cascade" approach is a hierarchical approach to development investment decision making by promoting judicious use of scarce public and concessional resources to crowd-in commercial capital and minimize the public debt burden of the Bank's clients, while delivering sustainable and affordable infrastructure services.

ESMAP Risk Framework		
Risk Description	Risk Rating	Proposed Mitigation Measures
		<p>identifying and managing potential, real or perceived conflicts in the operational setting, including those arising between and among the three Bank institutions (i.e., IBRD/IDA, IFC and MIGA).</p> <ul style="list-style-type: none"> The Bank's Development Finance (DFi) Vice Presidency's role and initiatives enhance transparency and facilitate strategic dialogue with donors, information sharing, prioritization and fundraising coordination.
II. Operational Risks		
<p>5. ESMAP activities/projects:</p> <ul style="list-style-type: none"> do not respond to client needs; are duplication with existing activities and sources of finance; suffer implementation problems or delays; and/or do not have adequate results measurement and dissemination of results. fail to co-ordinate and promote coherence with the relevant programs of contributing donor partners. the benefits of ESMAP support not reaching vulnerable population, including girls and women, especially in fragile environments. 	Moderate	<ul style="list-style-type: none"> Country and regional activities are anchored in World Bank country programs and must demonstrate client commitment Aid coordination strengthened by ESMAP's participation in and organization of events, including annual meetings, dialogue roundtables, joint study tours Country-level activities are implemented through World Bank operational units, which participate in country/project-specific coordination structures and processes. ESMAP activities are subject to standard World Bank portfolio monitoring and implementation status reporting systems. ESMAP M&E system will have an upgraded online feature for improved transparency and timeliness of information. ESMAP is developing a Knowledge Management system for strengthening organization and dissemination of knowledge. Annual Portfolio Review to strengthen focus on results and outcomes. Approved ESMAP activities include plans for TTLs to coordinate and include consultations with donors in the field or in donor capitals, as appropriate. Approved ESMAP proposals include identifying the expected benefits and the risks to extending them to the most vulnerable population, in particular, females and those residing in fragile, conflict and violence afflicted countries.

ESMAP Risk Framework		
Risk Description	Risk Rating	Proposed Mitigation Measures
6. ESMAP Staff Turnover.	Low	<ul style="list-style-type: none"> Teams have critical mass that allows for assigned back-ups and are also complemented by external specialists.

Annex 6: List of supplementary materials

#	Document / Material	Source
1	ESMAP website	http://esmap.org/
2	ESMAP Business Plans	http://esmap.org/business-plan
3	Safeguarding against Risk and Corruption	Provided below
4	ESMAP annual report 2019	
5	SDG7 Tracking Report 2020	
6	State of Electricity Access Report (SEAR)	
7	Regulatory Indicators for Sustainable Energy (RISE)	
8	Policy scorecard, Multi-Tier Framework (MTF)	

Safeguarding against Risks and Corruption

World Bank trust funds receive the benefit of the World Bank’s administrative, operational, and fiduciary capacities, including robust operational and investment procedures. It has extensive operational structures and policies to safeguard all its trust funds, monitor compliance with such safeguards and apply mitigation procedures if required. World Bank’s policy and procedures on trust funds are set out in Operations Manual OP/BP 14.40 (Trust Funds). Activities financed from IBRD/IDA Trust Funds (i.e., recipient-executed trust funds and Bank-executed trust fund) are administered in accordance with the operational and administrative policies of the World Bank that also apply to IBRD and IDA financing.⁶

As a World Bank Board member, Denmark has oversight in various policies and practices for trust funds, including but not limited to, liquidity and asset management, quarterly financial reporting, the role of the Audit Committee, operational policies. Denmark also receives regular reporting to the Board on trust fund-related issues, and has access to the Single Audit⁷. And as

⁶ Operational Manual OP 14.40 (Trust Funds), in paragraph 4, lists the following three types of trust funds: “(i) Recipient-Executed Trust Funds (RETFs)—funds that the Bank passes on to a third party and for which the Bank plays an operational role—i.e., the Bank normally appraises and supervises activities financed by these funds; (ii) Bank-Executed Trust Funds (BETFs)—funds that support the Bank’s work program; (iii) Financial Intermediary Funds (FIFs)—funds that involve financial engineering or complex finance schemes, or where the Bank provides a specified set of administrative, financial or operational services.”

Paragraph 6 of OP 14.40 further provides that “[i]n cases of hybrid trust funds, the relevant policies and procedures apply to the type in effect for the grant account. Activities financed from RETFs are administered under the Operational Policies and Procedures that apply to IBRD and IDA financing; smaller-size grants may be subject to simplified procedures. Activities funded by BETFs are administered in accordance with the Bank’s Planning, Budgeting and Performance Management Manual and the Bank’s Administrative Manual, both of which apply to the Bank’s administrative budget. In the case of FIFs, the application of Operational Policies and Procedures, the Administrative Manual, financial policies, budget policies and procedures, or other procedures, is determined on the basis of the characteristics of each such fund.”

⁷ The Trust Fund Single Audit is a combined financial statement of all modified cash basis trust funds (over 1,300 trust funds), and an annual management assertion over internal controls surrounding the preparation of trust fund financial reports. It is reported on a modified cash basis of accounting, which is a cash receipt and disbursement basis of accounting, modified to record the trust fund’s share in the pooled cash and investments at fair value. The Single Audit is distributed electronically to all Development Partners of the trust funds, included in the combined financial statement and can be obtained from the WBG’s Development Partner Center Website.

a donor, Denmark representatives would have access to trust fund-specific reports – including unaudited financial statements of individual trust funds, Single Audit Report, Implementation Status Reports, Implementation Completion Reports, Trustee-level Progress and Completion Reports. In addition, Denmark also participate in operational governance of the trust funds they support where governance bodies are established (generally larger, multi-year programmatic funds).

For IBRD and IDA operations and IBRD/IDA Trust Fund operations, including those supported by Denmark, the World Bank applies the following policies, procedures and guidelines to safeguard against risk and corruption.

1. The World Bank's Risk Framework describes the institutional systems put in place for the management of risk in World Bank operations, including in recipient-executed trust funds. The Risk Framework pillars include the Systematic Operations Risk-Rating Tool (SORT), a risk-rating tool which rates eight dimensions of risk (Environment and Social; Fiduciary; Institutional Capacity; Macroeconomic; Political and Governance; Sector Strategies and Policies; Stakeholders; and Technical Design) on a four-point scale (high, substantial, moderate or low) depending on the likelihood that risk will materialize and the expected severity of its impact if it does materialize. Any risk that does not fall in any of these categories are classified as "other" and explained. SORT is updated throughout the World Bank project lifecycle, both at preparation and during all phases of implementation. High-risk operations are monitored on a quarterly basis and reported to Senior Management. Risk analysis and trends in operations are also reported and discussed regularly with the Office of the Chief Risk Officer. SORT provides opportunities to develop empirical and evidence-based approaches to risk forecasting, strengthening the links between risk and project design and outcome, implementation plan, and resource allocation.

2. World Bank staff who manage trust funds need to be trained and accredited prior to managing trust funds, on the day-to-day trust fund management procedures. Accredited trust fund task team leaders (TTLs) are required to sign annual letters of representation (LoR) stating their fiduciary responsibilities associated with all trust funds under their domain. Furthermore, the Trust Fund Handbook aggregates and makes easily accessible the guidance, best practices, and other information for establishing and managing Trust Funds, including with respect to financial management, procurement, disbursements, and fraud and corruption. World Bank staff typically reference the TF Handbook regarding all TF related matters.

With regards to anti-corruption, as also explained in the Trust Fund Handbook, grants provided out of recipient-executed trust funds incorporate and are subject to the *World Bank's Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants* (Anti-Corruption Guidelines), and the applicable Bank procurement rules (currently set out in the *World Bank's Procurement Regulations for IPF Borrowers* dated July 2016)⁸, which include specific anti-corruption requirements in connection with the procurement and execution of contracts financed under the grant. The Standard Conditions for trust fund grants, which form an integral part of the Grant Agreements entered into with the recipients of a trust fund grant (Grant Recipients), provide for suspension and/or cancellation of disbursements, as well as the refund of disbursed grant proceeds, in the event of fraud and corruption in connection with the use of grant proceeds.

⁸ Previous versions of the Bank's procurement rules include the Bank's *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers* ("Procurement Guidelines") and the *Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers* ("Consultant Guidelines") (both dated Jan. 2011 and revised July 2014).

In addition, the [Anti-Corruption Guidelines](#) and the applicable World Bank procurement rules provide that the World Bank may sanction firms and individuals found to have engaged in corrupt, fraudulent, coercive, collusive or obstructive practices in connection with the use of trust fund grant proceeds, including (but not limited to) in the course of procurement or the selection of consultants, or in the execution of contracts financed by the trust fund grant. Sanctions include indefinite or temporary debarment, debarment with conditional release, conditional non-debarment, restitution and reprimand.⁹

3. The [Anti-Corruption Guidelines](#) are designed to prevent and combat fraud and corruption that may occur in connection with the use of proceeds of financing from the World Bank, including those financed out of IBRD/IDA trust funds, during the preparation and/or implementation of the projects¹⁰. The Anti-Corruption Guidelines set out the general requirements and sanctions, as outlined below, applicable to persons and entities which receive, are responsible for the deposit or transfer of, or take or influence decisions regarding the use of such proceeds. The Grant Recipients are obligated to ensure that all such persons and entities are obliged to take all appropriate measures, as outlined below, to prevent and combat fraud and corruption and refrain from engaging in fraud and corruption.

Specifically, to prevent fraud and corruption, the Anti-Corruption Guidelines require the Grant Recipients to take appropriate measures by (i) adopting appropriate fiduciary and administrative practices and institutional arrangements (such as sound financial management and procurement policies) to ensure that the loans and/or trust fund resources are used for intended purposes only; and (ii) ensure that all representatives and recipients of grant proceeds receive a copy of the guidelines and are made aware of its contents as a way to ensure compliance.

In addition, the World Bank includes fraud and corruption provisions in the Grant Agreement¹¹, with which the Grant Recipient is required to comply. Further, the Grant Recipient is required to ensure that (a) the Project is carried out: (i) with due diligence and efficiency; (ii) in conformity with appropriate administrative, technical, financial, economic, environmental and social standards and practices; and (iii) in accordance with the provisions of the Grant Agreement; and (b) the funds, facilities, services and other resources required for the Project are provided promptly as needed. The World Bank is responsible for ensuring that individual TFs and grants are used in accordance with Administration Agreements, and that recipients use these funds in accordance with Grant Agreements. VPU's are responsible for establishing internal management controls and procedures to ensure that TF programs or TF-financed activities are systematically supervised, audited, and evaluated, and that reporting requirements are met.

In addition, the Grant Recipient is required to enable the World Bank to examine records evidencing expenditures under the Project. If the World Bank determines that any

⁹ The World Bank's usual arrangements with respect to fraud and corruption do not apply to grants to UN agencies in crisis and post-crisis, or emergency or humanitarian interventions governed by the UN-WB Fiduciary Principles Accord. In these cases, special arrangements specified in the standard Disbursement Agreement with the UN apply.

¹⁰ In general, the Anti-Corruption Guidelines apply to recipient-executed trust fund grants or loans. Specifically, the Anti-Corruption Guidelines apply to projects supported by Investment Project Financing (IPF). The "Guidelines on Preventing and Combating Fraud and Corruption in Program-For-Results Financing" apply to programs financed by the World Bank through Program-for-Results Financing. The "Anti-Corruption Guidelines for World Bank Guarantee and Carbon Finance Transactions" apply to World Bank guarantee projects and carbon fund transactions.

¹¹ The provision is included in the "Standard Conditions for Grants made by the World Bank out of Various Funds", which forms an integral part of the Grant Agreement.

representative of the Grant Recipient or any other recipient of the proceeds of the Grant has engaged in corrupt, fraudulent, coercive or collusive practices in connection with the use of the proceeds of the Grant without having taken timely and appropriate action to address such practices, the World Bank takes appropriate action. Such actions will include suspension or cancellation of financing to the Grant Recipient and restitution by Grant Recipients.

4. INT (see paragraph 10 below) investigates allegations of fraud, corruption, collusion, coercion and obstruction in Bank-financed projects. In addition, INT investigates misconduct by World Bank Group staff (including consultants and former staff) and fraud and corruption by corporate vendors. Under the World Bank Group rules, all World Bank Group staff have a duty to report suspected fraud or corruption in World Bank Group-financed projects or in the administration of World Bank Group business to their direct manager or to INT. A manager who suspects or receives a report of suspected fraud or corruption has an obligation to report it to INT. INT has a rigorous process that it undertakes in determining which matters warrant further investigation; and which matters warrant referral to other World Bank operational units for their consideration of action. INT's investigations are conducted in an independent manner in accordance with international best practice.

5. Safeguarding resources through procurement for recipient-executed trust-funded activities is governed by the [Procurement Framework](#), which sets out the policies and procedures that guide procurement in operations funded out of both the World Bank's own resources and trust fund resources. During project preparation, the World Bank assesses procurement-related risks (in addition to non-procurement risks) that may affect the project and World Bank financing, and considers any procurement arrangements that may be appropriate for the project, including the World Bank's implementation support and monitoring of the project, and the Recipient's procurement support requirements.

During project implementation, the World Bank monitors the Recipient's compliance with its obligations as set out in the financing agreement. The World Bank's procurement related implementation support and supervision are carried out through a risk-based approach, adjusted to reflect project- and portfolio-related circumstances. The approach may include use of prior and post reviews, as well as independent procurement reviews and other fiduciary mechanisms appropriate based on the context and the risk, value and complexity of the specific operation. Cases of non-compliance by the Recipient under recipient-executed trust funds undergo the same assessment as such cases under IDA and IBRD financed operations and similarly may lead to appropriate actions by the World Bank, including exercise of the World Bank's legal remedies (e.g., cancellation of funds). The World Bank's action in any specific case takes into account all relevant factors, including the nature and scope of the procurement noncompliance.

In addition, the World Bank Procurement Framework requires that Recipients (including beneficiaries of World Bank loans and RETFs), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of World Bank-financed contracts and refrain from fraud and corruption, as required under the Anti-Corruption Guidelines.

6. Financial Management (FM) aims to provide reasonable assurance that financing provided by the World Bank is used for intended purposes with economy and efficiency, and assists developing partner countries build their FM capacity. The FM function supports the achievement of development results: it is fully integrated into all World Bank-financed operations and country institutional strengthening efforts. At the project level, accredited FM Specialists (FMS), who are members of World Bank task teams, design FM arrangements, supervise, and

support the FM performance of World Bank-financed operations. They collaborate closely with the staff of Procurement, [Finance & Accounting \(WFA\)](#), and other relevant units in the World Bank to achieve strong fiduciary oversight and development results. FM specialists strive to ensure that FM project arrangements – as assessed and designed during project preparation -- help enhance institutional capacity and sustainability of partner country institutions. FMSs conduct supervision throughout project implementation, using periodic site visits, desk reviews, and correspondence to resolve problems as they arise, and to monitor the continuing adequacy of FM arrangements. FMSs follow up on action plans agreed during appraisal / negotiations, as well as on observations derived from reviews of audit reports, management letters, and interim financial report.

The grant recipient and the project implementing entities are required to provide the World Bank audited financial statements of the project that are acceptable to the World Bank. Audits are carried out under terms of reference acceptable to the World Bank with consideration given to the independence and capacity of the auditors.

7. To ensure that people and the environment are protected from potential adverse impacts, World Bank staff apply a set of environmental and social policies (the Safeguard Policies) and require Recipients of World Bank Investment Project Financing operations and recipient-executed Trust Funds, to assess environmental and social risks and impacts, prepare, consult and disclose the relevant safeguards instruments to handle those impacts, and implement projects applying those safeguards instruments. In August 2016, the World Bank adopted a new set of environment and social policies called the [Environmental and Social Framework \(ESF\)](#). Preparations to implement the ESF are underway, with plans to be up and running during 2018. The ESF will incrementally replace the Safeguard Policies; the two will operate in parallel for about seven years to govern projects approved before and after the date the ESF starts to be applied. The ESF includes a policy, procedure and directive that applies to World Bank staff and a set of 10 environmental and social standards that will apply to recipients of loan and grant proceeds.

8. The Independent Evaluation Group (IEG) is an independent unit within the World Bank Group. It reports directly to the Board of Executive Directors, which oversee IEG's work through its Committee on Development Effectiveness. IEG performs independent and objective evaluations of the strategies, programs, projects, and corporate activities of the Bank Group. The management of the World Bank, IFC, and MIGA cannot alter the findings of the evaluation or prevent their release. This independence allows IEG to address accountability issues and to develop recommendations based on lessons of experience.

9. In addition to the policies and procedures described above, the World Bank Group has two independent Vice Presidential units that address matters of risk, control effectiveness, fraud and corruption:

[The Internal Audit Vice Presidency \(IAD\)](#) is an independent, objective assurance and consulting unit that helps to improve WBG operations. It assists the institution in accomplishing its objectives by evaluating the effectiveness of WBG governance, risk management, and control processes. Furthermore, IAD advises management in developing control solutions, and monitors the implementation of management's corrective actions. IAD's work is carried out in accordance with the Institute of Internal Auditors (IIA) [International Professional Practices Framework](#).

[The Integrity Vice Presidency \(INT\)](#) is an independent unit within the World Bank Group whose core function is preventing and investigating sanctionable misconduct, and pursuing sanctions related to allegations of fraud and corruption in WBG-financed activities and in the administration of WBG business. In instances where the WBG's own staff may be implicated

in such misconduct, INT's internal investigations unit similarly investigates those allegations. As an integral part of the WBG's overall Governance and Anti-corruption (GAC) efforts, INT contributes to risk management, working closely with other WBG units and external stakeholders to mitigate risks through preventive advice, training, and outreach efforts. In addition, INT runs the Integrity Compliance Office (ICO), which monitors the commitment of sanctioned companies to meeting.

Annex 7: Plan for communication of results

ESMAP's communications strategy is aligned with its Business Plan. It supports all ESMAP thematic and focal areas with the two-fold objective of: (a) strengthening outreach for ESMAP's knowledge products to external and internal audiences; and (b) increasing awareness about ESMAP's success in improving the performance of the energy sector. Communications activities are designed in consultation with the ESMAP manager and program leads and implemented by the ESMAP communications staff, who often collaborates with other World Bank communications units to leverage messages, channels and resources.

Activities and products adhere to specific ESMAP branding requirements. The ESMAP logo and standard acknowledgments (that include references to all ESMAP donors) must be included, appearing in all external materials such as publications, news stories, press releases, videos, presentations, banners, etc. ESMAP content is disseminated through various channels such as web platforms, social media, e-newsletters, and events. The ESMAP website is the primary platform for ESMAP knowledge products, programs, progress, and results. Content is also cross-promoted on other World Bank sites (regional or GP) and partner sites, when appropriate.

ESMAP content is also disseminated online to internal and external audiences (including ESMAP donors) through publication announcements and the ESMAP E-Bulletin. Hard copies of publications are distributed to WB staff, donors and partners. Major ESMAP initiatives, events and knowledge products are covered through news stories published on the ESMAP website, or blog posts. These stories and blogs, as well as the publications themselves, are then promoted through World Bank social media channels. When feasible, ESMAP coordinates social media strategies with its donors and other partners to strengthen the impact of virtual conversations on global energy issues.

Annex 8: Process Action Plan

Process Action Plan (PAP): Formulation of Danish Strategic Support to ESMAP & Clean Cooking Fund 2020-2023

Timeline	Activity	Documentation	Responsible
October 2019	Grant amount - submission to Finance Act 2020	Finance Act §06.34	MFA (MKL)
9-10 February	ESMAP Consultative Group Meeting. Discussion of overall priorities)	Draft strategy documents and evaluation.	ESMAP
17 April	ESMAP provision of inputs	Draft business plan 2021-2024	ESMAP
24 April	First draft of concept note		MFA (GJL)
4 May	Final Concept Note forwarded to TQS	Concept Note	MFA (GJL)
4 – 17 May	ESMAP Council meeting – review of 2021-2024 Business Plan (virtual meetings)	Draft ESMAP Business Plan, Covid19 response and country learnings.	ESMAP
13 May	Deadline for Submission of Concept Note to Programme Committee	Concept Note	MFA (GJL)
11 June	Programme Committee meeting	Chairman's conclusions	MFA (FRU)
11 June – 3 August	Completion of draft Development Engagement Document, incl. annexes	DED document	MFA (GJL) and ESMAP
4 August – 4 September	Appraisal	Appraisal report	ELK/GJL - Liesl
7 Sept. - 14 Sept.	Adjustment and final management review of DED	Response matrix	MFA (GJL)
15 September	Final Development Engagement Document and appropriation cover	Final Development Engagement Document and appropriation cover	MFA (FRU/GJL)

	forwarded to FRU for Council distribution.		
1 October	Recommendation by Council for Development Policy	Minutes of meeting	UPR/FRU
Mid-October	Presentation of programme proposal to the Minister for Development Cooperation	Approval	FRU
Late October, upon Minister's approval	Signing of Agreement ESMAP/MFA	Agreement	ESMAP/GJL
Beginning of November	Disbursement of 1 st annual tranche to ESMAP	ESMAP Request and Receipt	ESMAP/GJL

Annex 9: Summary of recommendation of Appraisal

Title of (Country) Programme	Danish support to ESMAP 2020-2024
File number/F2 reference	F2 2020-17816
Appraisal report date	4 September 2020
Council for Development Policy meeting date	1 October, 2010
<p>Summary of possible recommendations not followed</p> <p>All recommendations have been accepted and followed. However, a few recommendations have only been partially followed as these will depend on external partners:</p> <ul style="list-style-type: none"> • The important role of ESMAP will be emphasized in the next MFA organizational strategy for World Bank. However, concrete actions have not 	
<p>Overall conclusion of the appraisal</p> <p>The proposed support to the ESMAP Business Plan 2021-2024 is a relevant response to the international challenges on sustainable energy development. It is well aligned to the strategic priorities of Denmark and supports Danish priorities for SDG7 and climate change at the country, regional and international levels. It includes an increased concentration on Africa, which is well aligned with Danish development priorities.</p> <p>The appraisal team finds that the preparation phase was solid and well informed and that the proposed new business plan allows ESMAP to expand its instruments and to unfold to its full potential. Findings and recommendations from the 2020 ESMAP external evaluation have sufficiently been drawn upon and have guided the preparation of the proposed contribution.</p> <p>The conclusion of the appraisal is that the project is recommended for approval, with minor adjustments of the Development Engagement Document as proposed through the recommendations below.</p>	

Recommendations by the appraisal team	Follow up by the responsible unit
<p>The Development Engagement Document should include more details on ESMAP's approach to accommodate preferenced funding from donors, and specifically on how best to track progress on these contributions</p>	
<p>The preferenced funding is aligned with Danish priority areas and as such the programme results framework and hence specific indicators are selected to track and measure progress on these areas, which will be useful for Danida reporting purposes. However, the AT felt that it will be useful to better understand ESMAP's approach to accommodate preferenced funding from donors, including on how to track progress and results.</p>	<p>The DED document now include clear reference to previous positive Danish experience with preferenced funding to ESMAP. A footnote is also included that the new umbrella trust fund structure allows to make both core, preferenced and earmarked contributions. A section regarding monitoring of the preferenced funding has also been included explaining that selected indicators reflect Danish priority preferences and that Denmark will monitor budget allocations on an annual basis.</p>
<p>The DED should include details about the amount and duration of the new phase of support (currently it is more backward looking) in the opening summary section in order to set the scene for the reader.</p>	
<p>This information will be useful to get for the reader early in the Development Engagement Document</p>	<p>The introduction has been revised and summarizing the size and objective of the Danish contribution to ESMAP.</p>
<p>Recommend that the Development Engagement Document includes more detail on lessons learned and previous experiences from the previous phase of support to ESMAP.</p>	
<p>Denmark is a long time donor to ESMAP. The appraisal found that it will be useful that the Development Engagement Document provides more information on how the previous experience has informed the design of the proposed support</p>	<p>The lessons learned sections has been improved to demonstrate the dynamic collaboration that has characterized the Danish engagement with ESMAP over the years. Denmark has both supported ESMAP to create new relevant thematic facilities but also benefitted from ESMAP wind mapping in Ethiopia.</p>

The Development Engagement Document should include more details on the assumption issues related to the ESMAP Theory of Change.	
The appraisal found that the assumptions for the Theory of Change in the ESMAP Business Plan are important for the overall assessment of the proposal and should be given more attention in the Development Engagement Document.	Two additional paragraphs have been included in the Development Engagement Document. It outlines the key assumption to deliver outlined outcomes and impacts through three forms of interventions.
The Development Engagement Document should highlight how Denmark will continue to push the energy efficiency agenda in ESMAP, e.g. by focusing on how energy efficiency measures can be designed and packaged to attract larger investments e. g. by the World Bank and other Development Finance Institutions.	
Energy Efficiency is an important component of SDG7 because it can lead to economic savings, a better environment and make energy available to improve access. The appraisal found that this area is often underprioritized, and that ESMAP should strengthen its role in facilitating access to investments in energy efficiency.	Denmark has currently a seconded staff supporting ESMAP's work on energy efficiency. It is proposed to explore opportunities to enhance collaboration between the Danish seconded staff/ESMAP and the DEA government-to-government support targeted energy efficiency.
The Development Engagement Document should include more specific reference on the adherence to HRBA principles, and how Denmark can actively pursue these priorities e.g. in the Consultative Group	
The appraisal found the Development Engagement Document should include more information on how the ESMAP Business Plan addresses the relevant HRBA principles, e.g. on local ownership and transparency, and how Denmark can follow-up on this during implementation. This is particularly relevant in the planning and implementation of local renewable energy investment, to ensure ownership and participation, and local benefits from the investment.	Additional information have been included regarding the human rights based approach. A fundamental building block of ESMAP's business plan is the importance of ensuring a more inclusive energy transformation that leaves no one behind. This is evident in the increased priority of closing the energy gap in Africa and accelerate access to clean cooking. However, ESMAP also addresses the HRBA principles in other areas such as focusing on a just transition in coal depending region or by directing fiscal savings from fossil fuel reforms towards social spending to avoid adverse impact to the poorest populations.

<p>In addition to the specific risks already highlighted, the Development Engagement Document should include risks mentioned in the overall risk management matrix of the ESMAP Business Plan on i)not responding to client needs, ii)failure to coordinate with donor partners and iii)not reaching vulnerable population, e.g. in fragile environments.</p>	
<p>The appraisal found that the risks are well presented in the Development Engagement Document and that Denmark should also pay attention to recommends that key operational risks in the overall ESMAP matrix, related to key Danish priorities.</p>	<p>Additional information has been inserted regarding ESMAP own risk matrix. The complete matrix is also included as an annex. It follows WB's standards and outlines key risks and challenges for forthcoming business plan period.</p>
<p>During implementation Denmark should monitor the list of current and new client countries to ensure their ODA eligibility</p>	
<p>Given that the Danish support is reported to OECD as Official Development Assistance (ODA) it is important to ensure that ESMAP client countries are included on the OCED list of ODA eligible countries</p>	<p>The World Bank is included on the OECD-DAC list of ODA-eligible organisation and the purpose of ESMAP explicitly emphasises its support to middle- and low-income countries. The appraisal has included a review of all current supported countries and all are included on the OECD-DAC list. In then DED, it has been emphasised that the MFA will review the list of countries on annual basis.</p>
<p>Denmark should maintain a focus on how to strengthen the sustainability of ESMAP operations, including in the Consultative Group discussions.</p>	

<p>The 2020 ESMAP External Evaluation points out that there has not been systematic follow up to examine the long-term sustainability. The appraisal recommends that Denmark follows-up on this to strengthen attention to sustainability</p>	<p>The external evaluation found that ESMAP-funded activities have made good progress towards achieving both project-specific outcomes and Results Framework outcomes, especially related to development finance informed. Multiple and/or successive grants in a country is a key factor affecting outcome achievement and sustainability. World Bank lending operations represent a key pathway for ensuring sustainability of ESMAP results. However, the external evaluation also provided a number of recommendations to further improve this work. A paragraph has been inserted emphasising that the MFA will follow up on the recommendations provided in the external evaluation in the extensive annual meeting (often full week) of the Consultative Group.</p>
<p>Denmark should work to maintain and enhance the ESMAP priority to Africa through the Consultative Group, including the use of core funds (non-earmarked), preferenced (soft earmarked) funding and earmarked funds.</p>	
<p>The appraisal notes that the “Umbrella 2.0” instrument under the World Bank’s new Trust Fund Reform opens up for donors to support their priorities under ESMAP. It found that Denmark should use this opportunity to push for an increased share of ESMAPs budget going to Africa.</p>	<p>Denmark will continue to advocate for stronger priority of supporting Africa. Particular when it comes to closing the energy gap and accelerate access to clean cooking. Further, Danish preferencing to support the clean cooking fund will be targeted Africa. Complementary preferenced funding to ESMAP is likely to be targeted Africa.</p>
<p>In the next Danida World Bank Organisational Strategy specific reference should be made to the Danish support to ESMAP e.g. as a tool to maximize impacts on World Bank lending.</p>	
<p>The appraisal found that even though ESMAP is a program under the World Bank B and an important tool for influencing WB lending, ESMAP is not mentioned in the current (2019-2023) Danish organizational strategy for the WB. The appraisal suggests that this may make it more difficult to ensure coordination, synergies and impact of the range of Danish inputs to the WB</p>	<p>This recommendation has been shared and discussed with the MFA team responsible for Multilateral Development Banks. It is evident that the Danish contribution to ESMAP can play an important role to support the Danish goal of greening the World Bank’s lending portfolio to be aligned to the Paris Agreement. This link has been emphasized in the section presenting the strategic considerations and justification for the Danish contribution.</p>

<p>Denmark should work with ESMAP and in the CG to strengthen the forward-looking strategic advisory role of the TAG. As part of this, Denmark could consider suggesting a candidate for the TAG</p>	
<p>The appraisal found that the Denmark and likeminded members of the Consultative Group should strengthen the ESMAP Technical Advisory Group (TAG) in quality assurance and as a forward looking strategic adviser. Given that it is a world leader in sustainable energy, Denmark has important international level expertise to offer in the TAG. The appraisal suggests that Denmark may be able to increase its influence on ESMAP by proposing a Danish TAG member, e.g. an internationally recognized individual from a leading Danish energy research institute</p>	<p>The MFA has actively been engaged in updating Terms of Reference for the Technical Advisory Group and discussing the engagement with the Consultative Group. Denmark will actively explore opportunities for proposing a Danish expert to participate in the TAG.</p>
<p>Denmark could work towards formalizing the cooperation with ESMAP/World Bank (via a Memorandum of Understanding or similar) with ESMAP/World Bank that can be a framework for Danish bilateral programs to reach out to and look for partnerships with ESMAP/World Bank programs at the country level.</p>	
<p>Denmark could (separate from any financial agreement) enter an agreement with ESMAP/World Bank, which focuses on facilitating developing country level co-operation through the WB Country Team. This could cover the Danish bilateral programs, including by the Danish Energy Agency, and could lead to better coordination between ESMAP/World Bank and Danish country teams, as well as promoting synergies and possible cooperation.</p>	<p>Denmark will seek opportunities to strengthen collaboration with ESMAP in various ways. The Danish Energy Agency's government-to-government programme could be relevant opportunity. Collaboration has already been established in India (offshore wind) and Ethiopia (wind energy mapping). The MFA will seek further opportunities to formalize and expand cooperation with bilateral Danish engagements, incl. with civil society and the private sector.</p>

Quality Assurance checklist

File number/F2 reference: F2 2020-17816

Programme/Project name: Danish support to ESMAP 2020-2024

Programme/Project period: 2020-2024

Budget: DKK 90 million

Presentation of quality assurance process:

The appraisal/QA process was conducted according to the Terms of Reference and was based on desk analyses of key documents (in particular the DED and the ESMAP Business Plan 2021-2024), combined with meetings and telephone interviews with key informants. They included the ESMAP Managing Director, the co-chair of the Consultative Group (CG), the Danish secondee to ESMAP, the Danish Ministry of Energy Climate and Utilities and DTU Wind. The Appraisal Team (AT) consulted with the Danish Ministry of Foreign Affairs, GJL throughout the appraisal process.

The appraisal commenced its work 4 August 2020 according to the timeline laid out in the Process Action Plan (PAP). The work included the preparation of an Appraisal Preparation Note (APN) that guided the appraisal team's work. A draft Appraisal Report (AR) with findings and recommendation was forwarded to MFA 28 August 2020. The final AR was submitted 4 September 2020.

The AT identified a number of issues that should be addressed in the final programme design, and which are reflected in its recommendations.

- ❑ The design of the programme/project has been appraised by someone independent who has not been involved in the development of the programme/project.

The project was appraised by Liesl Inglis, GJL, MFA, supported by Rene Karottki as external independent consultant, both without involvement in the project development

- ❑ The recommendations of the appraisal have been reflected upon in the final design of the programme/project.

Yes

- ❑ The programme/project complies with Danida policies and Aid Management Guidelines.

The AT found that the ESMAP dual objectives of achieving universal energy access by 2030 and advancing decarbonization of the energy sector complies well with Danish development policies in sustainable energy and climate change. It will furthermore complement other Danish supported initiatives in support of the SDG7 targets and the Danish bilateral energy cooperation programs.

- ❑ The programme/project addresses relevant challenges and provides adequate responses.

The AT found that the ESMAP Business Plan is politically and technically relevant, addressing key areas within the sustainable energy agenda, in particular SDG7. It includes a wide range of important actions on clean cooking, electricity access, renewable energy and decarbonization. The responses provided by ESMAP are relevant, in particular as they lead to improved capacity in client countries, and to mobilization of funds from WB, other concessional funders such as GCF, and from private capital. The quality of the ESMAP responses also strongly depends on a strong local ownership and commitment at the country level, among governments and stakeholders.

The AT noted that ESMAP has been able to provide a quick and relevant response to the COVID 19 challenge through the COVID 19 response (Business Plan Annex 2), and that a more detailed concept note on the role of the energy sector in the post COVID -19 recovery will be presented to the CG during autumn 2020.

□ Issues related to HRBA/Gender, Green Growth and Environment have been addressed sufficiently.

Gender, green growth and environmental issues are well addressed. The AT found that HRBA issues, such as local participation and transparency, could be given more attention in the ESMAP Business Plan and the DED. This is reflected in the AT recommendations.

□ Comments from the Danida Programme Committee have been addressed (if applicable).

The AT found that the recommendations from the Danida Programme Committee (PC) have been sufficiently addressed.

□ The programme/project outcome(s) are found to be sustainable and is in line with the partner's development policies and strategies. Implementation modalities are well described and justified.

The sustainability of the outcomes depends on improved capacity in client countries, on mobilization of funds from WB, other concessional funders and from private capital, and on a strong local ownership and commitment at the country level, among governments and stakeholders. The AT found that the sustainability of the ESMAP interventions is likely, but that these aspects should be further elaborated in the Business Plan and the DED. This is reflected in the AT recommendations.

ESMAP's implementation modalities involve a combination of own-managed global knowledge work, technical support to WB operations and country based grants to WB and IFC regional units. The AT found that the implementation modalities for the country based activities should be given more attention, also to demonstrate their relevance to the client countries objectives and to strengthen local ownership.

- ❑ The results framework, indicators and monitoring framework of the programme/project provide an adequate basis for monitoring results and outcome.

The AT found that the Results Framework is relevant and consistent with the objectives of the new business plan. There is room for improvement in terms of defining and measuring outcomes. It may be too ambitious to have a results framework that covers both the core program funding and earmarked funding to associated trust funds and recipient executed country projects.

The DED includes a list of Danish priority outcome indicators and targets, selected from the ESMAP Results Framework, covering all 6 priority programs. The AT found the proposed selection reflects important Danish priorities and will facilitate Denmark's monitoring of progress through the implementation period, in particular at the annual CG meetings where progress reports and annual reports will be presented and discussed.

This is reflected in the AT recommendations.

- ❑ The programme/project is found sound budget-wise.

The budget for the DK 90 million Danish contribution is distributed between core funding, preferred funding and a contribution allocated to the Clean Cooking Fund. This sub-division is a relevant reflection of the Danish intentions to support ESMAPs in general, and to target a substantial part of the support to certain Danish priority areas.

The envisaged flow of funds from Denmark is DK 22.5 million per year, disbursed after the approval of the previous year's annual report and accounts. The AT notes this flow makes it possible to Denmark to ensure that the implementation follows the agreed track, before the next year's funds are disbursed.

- ❑ The programme/project is found realistic in its time-schedule.

The Danish support project covers the full ESMAP Business Plan period. All outcome and output targets in the Results Framework are set at FY 2024. This provides a flexible approach to when the different outcomes are to be delivered. However, the AT found that some of the quantitative results and target indicators to be a bit optimistic.

- ❑ Other donors involved in the same programme/project have been consulted, and possible harmonised common procedures for funding and monitoring have been explored.

The ESMAP Consultative Group (CG) is composed of contributing donors and constitutes the main forum for donor consultation. It meets annually to provide strategic direction to the implementation of the Business Plan, and to review achievements, use of resources and funding requirements. It also reviews the annual financial and progress reports. The CG was involved on the design of the new Business Plan through a brainstorming session in February 2020, and through discussions on the final draft that was agreed at formal CG meeting May 2020.

- Key programme/project stakeholders have been identified, the choice of partner has been justified and criteria for selection have been documented.

The AT notes that ESMAP has no direct country level dialogue with governments and national stakeholders. The country level dialogue is happening through the WB country teams, and ESMAP's role is primarily to provide the WB teams with the analysis and tools required for this dialogue. During an interview, the ESMAP CG co-chair noted that ESMAP has in recent years become better in facilitating the WB country level dialogue, and that the concept of local level partnerships has been engrained in all thematic areas. The AT notes that this is closely related to key HRBA principles on local ownership and transparency, and on the sustainability issue, and suggest that the country level dialogue should be an issue to be followed by Denmark e.g. in the CG. This is reflected in the AT recommendations.

- The executing partner(s) is/are found to have the capacity to properly manage, implement and report on the funds for the programme/project and lines of management responsibility are clear.

The AT has not made its own assessment of WB/ESMAP financial management systems. It notes that the accounting, auditing and reporting will follow the Administration Agreement between ESMAP and the World Bank Group, and that ESMAP will produce an annual narrative and financial report that will be presented to the CG. A single annual audited report will be submitted to the donors within 6 months after the end of the Bank's fiscal year. Given that this is a well-established procedure, and that ESMAP is well-known to Denmark as a long-time donor, the AT is confident that financial management of the Danish contribution to ESMAP will follow the required Danish standards.

- Risks involved have been considered and risk management integrated in the programme/project document.

The overall risk management matrix included in the ESMAP Business Plan covering strategic and operation risks, complies with the WB Risk Framework. The AT found that it includes relevant risks, but that the related analysis and responses are quite generic. More specific overviews of risks and risk mitigation measures are included in the power point slides presenting each of the 6 priority programs. They also mention the risks related to COVID 19, including on-the-ground implementation delays and changing local priorities due to the disease.

The AT suggest that going forward Denmark should pay specific attention to operational risks in the overall matrix related to i)not responding to client needs, ii)failure to co-ordinate and promote coherence with the relevant programs of contributing donor partners, and iii)that the benefits of ESMAP support not reaching vulnerable population, including girls and women, especially in fragile environments. Furthermore, Denmark should pay special attention to the risks related to the 5 activities supported under the Danish preferred funding, and to the COVID 19 related risks.

In continuation of the ESMAP matrix, the DED suggests that the Danish risk management should focus on key programmatic, contextual and institutional risks, and outlines a number of risks and mitigation measures. This includes the risks of duplication of activities and lack of synergies with Danish funded multi- and bilateral activities, and the risk of mis-management of the recipient executed trust funds that are part of ESMAPS new umbrella 2.0 structure.

The AT found that the risk focus on synergies with Danish activities and the recipient executed trust funds to be relevant. This even more relevant as the latter risk is not included in the overall ESMAP Risk Management Matrix.

The risk considerations above are reflected in the AT recommendations

In conclusion, the programme/project can be recommended for approval: yes / no

Yes

The proposed phase of support to ESMAP is a successor to the previous grant and continues to be well aligned to the strategic priorities of Denmark, specifically it supports Danish priorities for the climate envelope at country, regional and international level. The current phase also supports an increased concentration on Africa, which is well aligned with developments in Danish priorities.

The AT assesses the preparation phase to be solid and well informed and finds that the proposed new business plan allows ESMAP to expand its instruments and to unfold to its full potential. Lessons learned and especially findings and recommendations from the external evaluation have sufficiently been drawn upon and have guided the preparation of this grant to ESMAP.

The conclusion of the appraisal is that the project is suitable for Danish support and the project is recommended to be presented for approval.