

ESTABLISHMENT OF A CLEAN ENERGY CENTRE IN THE ECO REGION

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO)

ECONOMIC COOPERATION ORGANIZATION (ECO)



Feasibility Study

Draft

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ECONOLER



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Authors:

Jamil Shariff, Econoler

Joëlle Matte, Econoler

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Global Network Regional Sustainable Energy Centres (GN-SEC)

Email: cececo@gn-sec.net

URL: <https://www.gn-sec.net/>

ABBREVIATIONS

ADA	Austrian Development Agency
ADB	Asian Development Bank
ADPC	Asian Preparedness Disaster Centre
AEDB	Alternative Energy Development Board (Pakistan)
AFD	Agence Française de Développement
ANREP	National Renewable Energy Policy
ANSA	Afghan National Standards Authority
AREC	Association of renewable energy of Kazakhstan
ARTF	Planning and Capacity Support Project of the Afghanistan Reconstruction Trust Fund
BMZ	German Federal Ministry for Economic Cooperation and Development
BNA	Baseline and needs assessment
CAREC-1	Central Asia Regional Economic Cooperation
CAREC-2	Regional Environmental Centre for Central Asia
CBIT	Capacity Building Initiative for Transparency
CC	Climate change
CDC	Coordination and Dispatching Centre
CECECO	ECO Clean Energy Centre
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CEPF	Critical Ecosystem Partnership Fund
CIS	Commonwealth of Independent States
CLASP	Collaborative Labeling and Appliance Standards Programme
COM	Council of Ministers
CPR	Council of Permanent Representatives
CSE-ECO	Centre for Sustainable Energy ECO
DABS	Da Afghanistan Brishna Sherkat
DFID	Department for International Development
DSM	Demand-side management
EBRD	European Bank for Reconstruction and Development
ECDC-TCDC	Economic and technical cooperation among developing countries
ECO	Economic Cooperation Organization
ECO-CEC	ECO Clean Energy Centre
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency

EE	Energy efficiency
EES	Energy Sector Strategy
EI	Energy intensity
EME	Energy, Minerals and Environment
EMRA	Energy Market Regulatory Authority (Turkey)
ENP	European Neighbourhood Policy
EPC	Energy performance contract
ER	Renewable energy
ESCAP	(United Nations) Economic and Social Commission for Asia and the Pacific
ESCO	Energy Service Company
ESIB	Building Sector in Eastern Europe and Central Asia
EU	European Union
EXIST	Energy Exchange Istanbul
FEC	Fuel and Energy Complex
FiT	Feed-in tariff
FAO	FOOD and Agriculture Organization
GBAO	Gorno-Badkshan province
GCF	Green Climate Fund
GDI	Gender Development Index
GEF	Global Environment Facility
GET	Green Economy Transition
GFSE	Global Forum on Sustainable Energy
GHG	Greenhouse gas
GII	Gender Inequality Index
GN-SEC	Global Network of Regional Sustainable Energy Centres
HCI	Human Capital Index
HDI	Human Development Index
HLEG	High Level Expert Group
HVAC	Heating, ventilation and air-conditioning
IDB	Islamic Development Bank
IIEA	International Eco Academy
ILO	International Labour Organization
IRENA	International Renewable Energy Agency
JICA	Japan International Cooperation Agency
LLDC	Landlocked developing country

MENR	Ministry of Energy and Natural Resources
MEW	Ministry of Energy and Water
MOU	Memorandum of understanding
MRRD	Ministry of Rural Development
MS	Member state
MUD	Ministry of Urban Development
NDC	Nationally determined contributions
NDS	National Development Strategy
NEECA	National Energy Efficiency & Conservation Authority
NEPRA	National Electric Power Regulatory Authority
NFI	National Focal Institution
NGO	Non-governmental organisation
OFID	Fund for International Development
OSCE	Organization for Security and Co-operation in Europe
PCA	Partnership and Cooperation Agreements
PEEREA	Protocol on Energy Efficiency and Related Environmental Aspects
PPP	Public-private partnership
PPPP	Pamir Private Power Project
R&D	Research and development
RE	Renewable energy
RECs	Sub-regional economic communities
REEEP	Renewable Energy and Energy Efficiency Partnership
RESET	Regional Security, Efficiency and Trade
RISCAM	ECO Regional Institute for Standardization, Conformity Assessment, Accreditation and Metrology
RISE	Regulatory Indicators for Sustainable Energy
RPC	Regional Planning Council
S&L	Standards and labelling
SAARC	South Asian Association for Regional Cooperation
SC	Steering Committee
SDG7	Sustainable Development Goal 7
SE4ALL	Sustainable Energy For All
SECO	State Secretariat for Economic Affairs
SEFF	Sustainable Energy Efficiency Financing Facility
SEMISE	Support for the Energy Market and Sustainable Energy

SERI	Sharif Energy Research Institute
SME	Small and Medium-sized Enterprises
SPPRSD	State Program on Poverty Reduction and Sustainable Development
STEM	Science, technology, engineering and mathematics
SWERA	Solar and Wind Energy Resource Assessment
SWOT	Strengths, weaknesses, opportunities and threats
TAU	Technical Advisory Unit
TEIAS	Turkish Electricity Transmission Company
TFEC	Total final energy consumption
TH	Thematic Hub
TPES	Total primary energy supply
TTF	Thematic Trust Fund
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
WB	World Bank
WBG	World Bank Group
WBL	Women, Business and the Law index
WEF	World Economic Forum
WHO	World Health Organization

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EXECUTIVE SUMMARY

INTRODUCTION

For the past 10 years, the United Nations Industrial Development Organization (UNIDO), in partnership with sub-regional economic communities/organisations (RECs) and their members states (MS), has been developing the Global Network of Regional Sustainable Energy Centres (GN-SEC), an innovative south-south and triangular multi-stakeholder partnership to accelerate the energy and climate transition in developing countries via the establishment of sub-regional sustainable energy promotion centres. The GN-SEC now has six operating centres and three centres are in the preparatory phase.

The Economic Cooperation Organization (ECO)¹ is a regional intergovernmental organisation encompassing diverse member countries from Europe, the Caucasus, Central Asia, the Middle East, and South Asia, with a total population of more than 460 million and a total area of over eight million square kilometres. ECO's main overall objectives include promotion of conditions for sustainable development in the region and intensifying mobilisation of natural resources, in particular energy resources. Over the past few years, ECO has been undergoing an energy cooperation paradigm shift towards energy efficiency (EE) and renewable energy (RE). ECO's Vision 2025 was recently endorsed by the ECO Ministers; this vision stipulates the enhancement of energy security and sustainability through wider energy access and trade as ECO's strategic objective. The establishment of the ECO Clean Energy Centre (hereinafter referred to as "the Centre"), as part of the GN-SEC, is explicitly referred to as one of the region's clean energy goals.

This assignment involves delivering two main deliverables: (1) a baseline and needs assessment report (BNA), and (2) a feasibility study report. The baseline and needs assessment report aims to provide a clear understanding of ongoing activities related to clean energy in the ECO region and assess the regional needs that can be met by establishing a clean energy centre. The methodology involved forming partnerships with local experts covering every ECO country²; the local experts completed detailed national situation analyses with results gathered from a range of key stakeholders. The baseline and needs assessment report provides a regional and national situation analysis, analyses the barriers and opportunities in the RE/EE sector, maps the relevant existing initiatives and stakeholders' priorities and needs related to EE/RE and makes a strengths, weaknesses, opportunities and threats (SWOT) analysis of the transition to green energy for the ECO region.

The baseline and needs assessment report has informed this feasibility study report, which examines how to best establish the Centre by looking at various essential aspects, including its institutional and technical design, the scope of its mandate, the results framework, the human resources needed, the indicative budget and the financial mobilisation strategy.

¹ The ECO Region includes Afghanistan, Azerbaijan, Iran, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Turkey, Turkmenistan and Uzbekistan.

² Due to unforeseen geopolitical events in Iran, the initial version of the BNA report only includes a preliminary assessment of this country. The local consultant was still working on his assessment as of January 11, 2020, which will be included in the final version of the BNA report.

1 THE BASELINE AND NEEDS ASSESSMENT'S MAIN FINDINGS

The preparatory steps for establishing the Clean Energy Centre for the Economic Cooperation Organization (the Centre) included a regional baseline assessment of the ECO countries' energy sector and needs analysis of the Centre. The baseline and needs assessment report has been prepared after completing the following tasks: conducting a situation analysis of the region, analysing the challenges and opportunities in the RE/EE sector, completing a stakeholder needs analysis, and completing a strengths, weaknesses, opportunities, and threats (SWOT) analysis of the current regional support framework. Local consultants based in each of the countries in the ECO region completed national analyses based on the results of the interviews held, the desk research done, and the questionnaires filled out by key informants from various sectors (public, private, international and non-governmental organisations). The information from the national analyses was then synthesised and analysed by our international team.

Situation Analysis

The ECO region encompasses a number of neighbouring countries and is a natural link between Asia and Europe. Situated along the ancient Silk Road (see Figure 1 below), the ECO member states share strong historical and cultural ties. The ECO region is facing several major energy issues limiting their economic development and health and wellness outcomes. Brief key energy statistics are shown in Table 1 below.



Figure 1: Map of the ECO Member Countries

Table 1: Key Statistics about the ECO Region

Energy Themes	Afghanistan	Azerbaijan	Iran	Kazakhstan	Kyrgyzstan	Pakistan	Tajikistan	Turkey	Turkmenistan	Uzbekistan
Energy Production and Subsidies										
Net oil and gas exporters		•	•	•					•	•
Net oil importers	•				•	•	•	•		
Availability of significant subsidies for electricity and oil products			•	•		•			•	
Integration of Renewable Energy (RE) Resources										
The country has an up-to-date RE target		•	•	•		•	•	•	•	
Share of RE in the total final energy consumption (TFEC) is lower than the global average (18%)		•	•	•				•	•	•
Existence of EE Policies										
EE target	•	•	•		•	•	•	•		
S&L for electric appliances			•	•	•			•		•

The country having the largest population in the region is Pakistan with 207 million, followed by Turkey (83 million) and Iran (79 million). Together these three countries account for 75% of the total population of approximately 489 million in the ECO region, as of the end of 2019. The ECO-region countries' local climates vary widely, like their respective energy consumption patterns. In general, the countries in the region have succeeded in bringing stable electricity supply to their urban areas. However, seven of the ECO region countries have some degree of energy inaccessibility or instability in rural areas. In the period from 2000 to 2016, a general trend towards a reduction in energy intensity was observed, thanks to the significant progress made by the two most energy-intensive countries, namely Turkmenistan and Uzbekistan.

Despite the overall wealth of energy resources in the ECO region (including large oil and gas reserves and substantially developed hydroelectric generating potential), at least half of countries in the region experience electricity supply shortfalls on a regular basis. Seven ECO-region countries have now set targets for developing RE. Most countries in the ECO region have set up some types of EE goals or targets, but these vary significantly in scope and objective.

Assessment of Gender and Energy

Although positive examples of projects and initiatives can be found across this region, their policies, laws, traditions and gender roles are generally a hindrance to achieving gender equality in the energy sector in all the ECO countries. More specifically, all countries have one or more laws preventing women from working in the same industries as men (either targeting specific industries or preventing women from occupying hazardous or "morally inappropriate" jobs). Currently, most ECO countries' governments are aware of the gender inequality prevailing in the fields of energy and climate-change-mitigation and have begun to implement policies to change this situation. However, a much stronger effort is needed to challenge and change traditional gender roles and improve women's socio-economic situations to empower them through a transition to a green economy. Regarding the gender roles and socio-economic conditions of women the ECO region, Econoler has identified the following four main factors that can negatively affect women's relations with energy (as consumers and as economic participants in the energy value chain): (1) limited decision-making opportunities of women; (2) a relatively inferior economic status preventing many women from accessing clean and reliable energy sources; (3) energy consumption shaped by women's domestic roles; and (4) the labour market's gender segregation preventing women from accessing benefits provided by the green economy.

This report identifies two main needs to be met to ensure that women are included in the green economy. First, for women as energy consumers, there is a strong need to better understand the intra-household needs and help introduce clean-energy technologies that benefit all the members of a household and all the households in a society without leaving women behind. Second, for women to play an active role in the energy value chain, there is a need for decision-makers to ensure that the legal frameworks, gender roles, or socioeconomic conditions do not make it difficult for women to seize opportunities linked to future energy developments by in the ECO region.

Analysis of the Challenges, Barriers, Drivers and Opportunities in the RE/EE Sector

The common legal and policy barriers identified by the analyses conducted for each country by a dedicated country team include the following: (1) a lack of comprehensive legislation including sanctions and enforcement of EE; (2) a weak or missing regulatory framework or customs policy; and (3) inconsistent implementation structures among various provinces (or equivalent) within every member country. The economic and financial barriers include the following: (1) a lack of dedicated financing schemes; (2) high levels of investor uncertainty; (3) high costs of financing; and (4) low electricity tariffs. The technical barriers include the following: (1) a range of challenges related to technical human resources; (2) data and knowledge barriers; and (3) the challenges posed by a lack of technical standards in the region. Knowledge and awareness-related challenges include the following: (1) a lack of public awareness of RE and EE; (2) a lack of promotion efforts by governments; and (3) limited science-related publications available.

The legal and policy-related enabling factors and drivers identified by the country-specific analyses include the following: (1) expression of the government's interest in making use of EE and RE; (2) membership in important regional bodies; (3) the targets for RE, EE or energy intensity having been set; (4) measures to strengthen the legislative framework being implemented in many cases; and (5) the existence of several intergovernmental organisations in the region available to support further changes. The economic and financial enabling factors identified include the following: (1) opportunities to specialize in specific RE technologies; (2) international donor support for national strategies; (3) growing consumer awareness; and (4) specific cases of reduced customs duties. The technical enabling factors include the following: (1) RE and EE potential has largely been mapped out; (2) developments towards unification of the electricity system; and (3) many low-hanging EE fruits.

Mapping Relevant Stakeholders and their Priorities and Needs Related to RE/EE

Regional cooperation has the potential to support efforts to overcome many of the main barriers identified and take advantage of the main enabling factors. Various stakeholders can also support those efforts, and many have expressed needs and priorities that can be supported. The priority needs expressed by public-sector organisations include capacity-building, financial instruments to improve return on investment, improvements to energy security, policy development, and tariff design. Regional intergovernmental organisations have emphasized the importance of those policies that support EE, RE, and environmental protection as priority needs and interesting opportunities. The main needs cited by stakeholders in the NGO sector are capacity-building and financial support for EE and RE. The feedback from private-sector stakeholders shows few consistencies across countries, but a high degree of consistency within each country. Policy development is the only priority cited by stakeholders in more than one country. Donor organisations have emphasized policy development, institutional development within governments, and technology development as the priority needs and opportunities in the ECO region.

Ongoing Regional Initiatives

Table 2 below highlights the ongoing and recently completed clean-energy initiatives in the ECO countries. Econoler's analysis of those initiatives has identified the following main issues: (1) few multi-county EE/RE initiatives (EE/RE is not addressed using a consistent regional approach.); (2) demand-side management is the most commonly implemented category of project in the region; (3) the initiatives focusing on gender equality and energy have been gathered, showing that gender equality is a concern for ECO countries and international development partners.

Table 2: Mapping of the RE/EE Projects and Programmes in the ECO Countries

Category of RE/EE Project	Multi-Country/Sub-regional Initiatives	Number of Initiatives in ECO Countries										
		Afghanistan	Azerbaijan	Iran	Kazakhstan	Kyrgyzstan	Pakistan	Tajikistan	Turkey	Turkmenistan	Uzbekistan	Total All Countries
Policy Development	3	1	4	0	6	3	3	3	0	2	3	2
Financial Initiatives	3	0	0	1	1	3	4	3	10	0	1	23
Centralised Power Supply	1	1	0	2	0	1	1	3	0	0	3	11
Decentralised Power Supply	2	2	1	1	1	2	2	2	0	0	0	11
Demand-side Management	2	0	3	7	2	3	4	6	7	6	4	42
Gender and Green Economy	0	1	0	0	2	2	1	2	2	0	0	10

	1 to 2 projects
	3 to 5 projects
	More than 5

Strengths, Weaknesses, Opportunities and Threats

As part of the SWOT analysis, the institutional strengths identified by the country teams with a high level of consistency among several countries include the following: (1) the government's will to implement the required changes to regulation and legislation; and (2) collaboration and support from international organisations. The main weakness identified for most countries is the weakness of the policy and regulatory frameworks. The technical strengths identified include the following: (1) a project for modernizing aging infrastructure; (2) favourable tariffs; and (3) the RE resource potential. Knowledge strengths were mentioned for few countries; by contrast, knowledge-related weaknesses were mentioned for several countries. For half of the countries in the region, it was mentioned that they lack technical capacity and opportunities for training, indicating the level of quality of the training available. For several countries, some economic and financial weaknesses have been identified, including a lack of economic incentives, a lack of dedicated funds and low electricity prices.

The institutional and political opportunities and threats identified vary among the countries. Some country teams have found few opportunities. Specific threats to regional integration were highlighted, including the challenges to moving among the countries, energy security issues and the varied paces of introducing RE in the region. Several technical opportunities have been identified for several countries. In the region, there is strong potential for RE, especially for electricity production. There is also strong regional potential for engaging in cross-border trade to improve supply stability and encourage integrating RE into the energy mix throughout the region. The international team has identified a major regional issue related to the lack of e-waste-recycling facilities in the region. Surprisingly, this lack has not been identified by any country team.

Knowledge opportunities have been identified for few countries. The most commonly cited is the development of research and development (R&D) opportunities for RE, followed by the trained experts who are working abroad. Environmental and social threats have been mentioned for few countries. Those identified threats are related to ongoing climate changes impacts, such as the dwindling glaciers and changes to the reservoirs' working capacities. The region's heavy reliance on a few transboundary water sources has been identified as having the potential to worsen the challenge of ensuring water security for many countries in the region. For several of the central Asian countries, it has been noted that there are economic and financial opportunities linked to the market development and the resulting increase in cost competitiveness. This is the kind of economic and financial opportunity most commonly identified for the countries in the region. For several countries in the region, the continuing fuel subsidies have been identified as a potential threat if not properly addressed.

2 SCOPE OF MANDATE AND AREAS OF INTERVENTION

Based on the baseline and needs assessment and the GN-SEC concept and history, a scope and mandate for the Centre is proposed. This begins with a description of the rationale for the design including a summary of lessons learned from other GN-SEC centres as well as other regional centres. We perform a risk analysis and then define the Centre's mandate and focus, in line with ECO's vision and UNIDO's principles. Finally, the comparative advantages of the Centre and links to the private sector and industry are briefly laid out.

2.1 Rationale for the Design of the Centre

The idea of establishing the ECO Regional Centre for Clean Energy (hereinafter referred to as "the Centre") was initiated by the ECO Secretariat as the outcome of the ECO-UNIDO consultations held in Vienna and Tehran in the past few years. UNIDO received an official request from the ECO Secretariat on 22 June 2017. The technical centre is expected to support the ECO Member States in implementing the regional and national sustainable energy commitments and upscaling sustainable energy markets, industries and innovation. UNIDO has been involved in helping set up and operate some similar centres around the globe and its best practices would be useful and helpful for ECO Region. Almost all these centres share the common objectives of improving energy access, energy security and climate change mitigation by promoting an enabling environment for RE and EE investments and industries and addressing the existing related barriers.

These centres respond to the urgent need for increasing regional cooperation and capacities to mitigate the existing barriers to RE and EE investment and markets. Some of the barriers to developing the sustainable energy and climate technology markets can be addressed more effectively and at a lower cost at the sub-regional level, as illustrated by Figure 22 below. The centres typically enjoy high-level support from the national energy ministers and respond to the specific needs of the respective national governments. The centres complement and strengthen ongoing national activities in such areas as policy and capacity development, knowledge management, awareness-raising, and investment and business promotion. The centres provide the RECs with the urgently needed technical capacities to coordinate and monitor the implementation of sub-regional energy and climate policies and regulations at the national level.

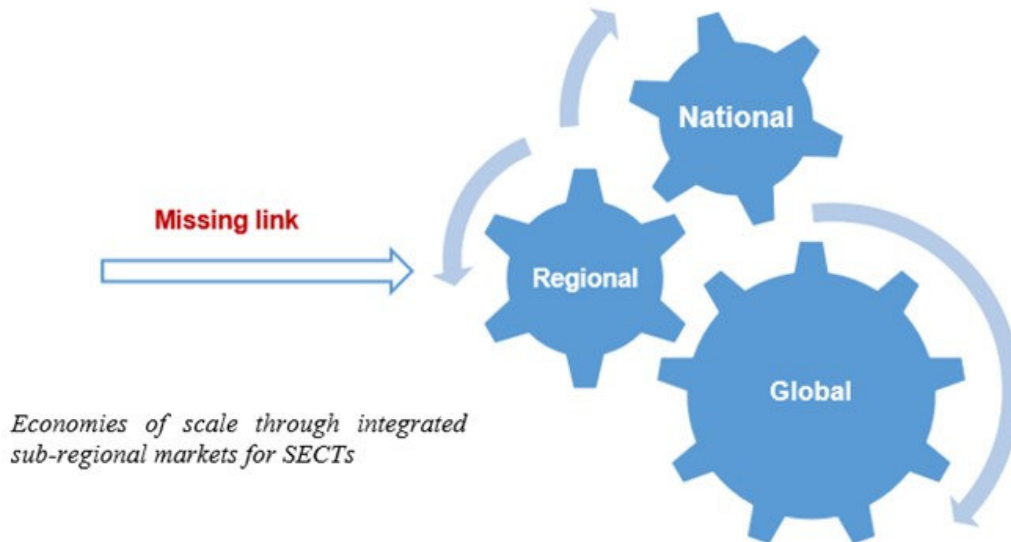


Figure 2: Conceptual Description of the Role of the Clean Energy Centre

2.1.1 UNIDO's Guiding Principles for Coordination with the ECO

UNIDO provides key technical services and mentoring to help establish and operate regional sustainable energy centres in partnership with regional communities and organisations. UNIDO's support model is implemented in three phases: the preparatory phase, the first operational phase and the second operational phase (see Figure 3 below). This model has been successfully applied in several other regional centres.

As described in the preparatory project document, the preparatory phase and the 1st operational phase are guided by the following UNIDO principles for coordination with the ECO.

The Centre should:

- › be created within the framework of some regional institutions already existing and build on regional experience;
- › have a strong local ownership and fund-raising abilities;
- › be based on a transparent institutional set-up;
- › work closely with the already existing regional and national institutions;
- › address RE and EE equally and holistically;
- › not compete with private-sector services;
- › avoid duplicating other ongoing initiatives and build synergies;
- › be action- and implementation-oriented rather than political;

- › bridge the gap between sustainable energy policy commitments and lack of implementation and investments on the ground;
- › influence policy for energy security of poor mountain communities;
- › serve as a strong link between international climate financing and implementation on the ground;
- › employ local experts and a few international experts;
- › promote South-South and North-South knowledge cooperation and technology transfer.



Figure 3: UNIDO's Support Model for Regional Centres Implemented in Three Phases

In addition, because gender equality and empowerment of women is expected to have a significant positive impact on sustained economic growth and inclusive industrial development in alignment with the UNIDO Gender Guidelines (UNIDO policy on Gender Equality and the Empowerment of Women from March 2015), gender will be mainstreamed throughout the Centre's preparatory and implementation phases.

2.1.2 Lessons Learned from Other GN-SEC and Regional Sustainable Energy Centres

In the design of the Centre, the following two sets of lessons learned and best practices have been considered: the lessons learned from the first operational phase of the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)³ and best practices collected from the in-depth interviews held with four regional climate and sustainable energy centres.⁴ The lessons learned and the best practices from these two sources are summarized in Table 3 below.

³ External evaluation of the first operational phase of ECREEE.

⁴ Matte, Joëlle and Catherine Langlois. 2017. "Establishment of a Climate Change Competence Centre (4CLIMATE) in Madagascar: Mapping International Best Practices", Published by the Climate Technology Centre and Network (CTCN). Centres assessed included: (1) the Moroccan Climate Change Competence Centre (4C), the Asian Disaster Preparedness Centre (ADPC), the Kumasi Institute of Technology and Environment (KITE), and the Caribbean Community Climate Change Centre (CCCCC).

Table 3: International Lessons Learned and Best Practices regarding the Establishment of Sustainable Energy and Climate Centres

Best Practices and Lessons Learned	Features of the Centre				Recommendations	Relevance and Application to the Centre
	Intervention	Institutionalisation	Financing	Infrastructure		
Establishing credibility both nationally and internationally	•				Use knowledge and expertise already available in the country or region to make the Centre an essential climate change (CC) and sustainable energy stakeholder.	The Centre should attract talent from all its 10 member countries to build a strong team comprised of qualified permanent staff. The Director of the Centre should be well known and have extensive knowledge of the energy sector.
	•				Play an active role in national and international talks on CC and sustainable energy to promote the Centre's mission and field of activity.	The Centre should already plan to send a small delegation of representatives to COP26 to be held in Glasgow from 9 to 19 November 2020 to present the Centre to the international community.
		•			Involve key stakeholders (e.g., ministries, utilities, electrification agencies, the private sector, and civil society) in the preparatory phase and the operational phases.	125 stakeholders from the public and private sectors, civil society and regional intergovernmental organisations were consulted during the baseline and needs assessment.
		•			Develop solid partnerships with a wide range of national, regional, and international organisations.	This is already well covered through ECO's international partnership, officialised with memoranda of understanding (MOU) (see Section Error! Reference source not found.).
			•		Develop a well-designed long-term-oriented flagship priority programme with the potential for upscaling within the first operational phase.	This flagship programme has been incorporated in the logical framework. However, flagship activities will be defined in detail by the Director in close cooperation with the Steering Committee and Technical Advisory Unit.
				•	Locate the offices of the Centre in an existing building affiliated to a university or other authoritative organisation to create a material link with a recognised institution.	The Centre's host will be decided through a competitive procedure and set up within an existing building affiliated to an authoritative organisation. This idea has been recommended as one of the criteria for selection.

Best Practices and Lessons Learned	Features of the Centre				Recommendations	Relevance and Application to the Centre
	Intervention	Institutionalisation	Financing	Infrastructure		
Ensure a powerful political and social ownership of the Centre's mission	•				Communicate the results to policy-makers and the general public through clear, exhaustive, and transparent documentation.	Creating an informative website, ensuring social media presence, establishing a newsletter cycle and building a contact database will be recommended as priority activities in the start-up phase.
		•			The Centre's statutes must be both politically and legally meaningful. The private sector, civil society, and research institutions should be involved as much as the public sector in the centre's design phase and first operational phase.	The first operational phase will focus on building a strong network of partnerships with local and international institutions in the clean-energy sector and develop common projects.
			•		Co-funding from the local counterpart is one important indicator of ownership (e.g., ECOWAS covered the biggest part of the staff and administrative costs of ECREEE).	ECO has contributed in kind to the preparatory phase budget and is expected to contribute to the first operational phase along with the host country and other member states as per ECO modalities for type A centres.
		•			The initial UNIDO support shall be time-bound and focused on building a centre with a strong regional identity, ownership and ability to mobilise its own financial resources.	ECO will need to focus on developing a strong regional identity in the first operational phase, given that the ECO member countries have few energy initiatives bringing them together.
				•	A competitive bidding procedure to select the host of the centre is also a good strategy to ensure ownership.	The documents for the preparatory phase suggest a competitive process for selecting the host of the centre, and this study concurs.
			•		The host country should show high interest in the centre and see it as a strategic investment.	The competitive bidding process will include criteria highlighting the investments being offered to entice the centre to locate in the country.

Best Practices and Lessons Learned	Features of the Centre			Recommendations	Relevance and Application to the Centre
	Intervention	Institutionalisation	Financing		
Mainstream the local identity throughout the design and operations		•	•	The early establishment of the network of National Focal Institutions (NFIs) and Thematic Hubs (THs) is crucial for ensuring the proper functioning of the Centre. Strengthening the capacity of NFIs is very important. Clarify the compensation for the NFIs for the provided services.	The initial activities of the Centre's secretariat will include requesting each ECO member state to nominate one CECECO NFI, which will be in charge of coordinating all the CECECO activities in each country or territory. If NFIs are not functioning as expected, the Centre will have the option to request another entity serve in its place. The creation of the THs will be included in the competitive bidding process in order to offer the potential for the host to partner with other organisations in the region and present a balanced proposal for host and THs.
Promote incremental development, and ensure the Centre's financial sustainability	•			Adapt existing international level documentation to ECO's energy context rather than create new content. Take advantage of available knowledge and know-how.	The adaptation of international know-how into the Centre's body of knowledge will be included in initial activities of the Centre.
			•	The budget of the Centre shall reflect the needs, be realistic, be ambitious and not be limited to the actually received funding commitments at the beginning. Funding mobilisation shall be a core activity of the Centre and its director.	The budget described attempts to reflect these principles. Funding mobilisation will be one of the core activities of the director.
			•	The expansion of the project portfolio shall be a requirement for the expansion of the staff and administrative costs. (Small is beautiful and form follows function.)	Growth of the Centre will depend on funding and will be embedded in the mandate.

Best Practices and Lessons Learned	Features of the Centre				Recommendations	Relevance and Application to the Centre
	Intervention	Institutionalisation	Financing	Infrastructure		
		•	•		Permanent proactive fund-raising for the technical programme of the Centre shall be a key performance indicator for the staff. The centre shall participate in international tenders and donors' dialogues from the very beginning.	We suggest that UNIDO involve the Centre as an executing partner for projects in the early stages of development. It has been planned that during the start-up process, the Centre will start submitting project proposals to donor partners and international tenders. The Centre should receive training on how to develop international proposals to be able to effectively handle this task.
			•		Diversify sources of funding to ensure the Centre's sustainability. Take part in international conferences to promote the Centre. The mixture of co-funding from RECs, international support and active fund-raising has been the basis of financial sustainability of other centres.	Fund-raising will be one of the key responsibilities of the Centre's director from the very beginning. The Centre will start with a small staff, which can be expanded based on the mobilised project funds.
Consistently target sectors and beneficiaries with national, regional and international priorities	•				Ensure that the mission, programmes, and training requirements meet national, regional, and international priorities on clean energy, and mention this in the Centre's documentation.	The Centre's mission and areas of intervention have been designed to cover ongoing priorities of the international agenda on clean energy, including social inclusion and gender mainstreaming in the Centre's mission and area of intervention.
		•			Constantly involve national and regional stakeholders from many different fields (public, private, civil society and research institutions) to remain consistent with their priorities.	

2.2 Risk Analysis and Mitigation Measures

Table 4: Risk Evaluation Matrix

Risk	Foreseen Impact	Likelihood	Proposed Mitigation Measure
Failure of the government's efforts to liberalise the energy market and conflicting political alignments	A liberalised energy market can be beneficial to attracting investment. A poorly implemented transition can limit foreign investment and hinder the sector's development.	Medium	The Centre will gather studies and examples of energy system transitions and lessons learned to support countries in making changes to their energy systems in a responsible and well-coordinated manner.
Vulnerable energy security	Low levels of energy security have been observed in the region and have disruptive impacts on all facets of the economy.	High	Improved regional energy trade can have positive impacts on energy security in the region. The Centre will focus on improving regional energy linkages to foster energy security.
Barriers to travel among the countries	As experienced during the preparatory phase, travel restrictions can pose challenges to activities.	Medium	Flexibility to hold virtual meetings, move meeting venues, and change dates can be incorporated into the Centre's operating modalities.
Poor integration among the neighbouring states in introducing RE technologies	Cross-border issues are a reality for many products in the region.	Medium	RE and EE can be leaders in promoting cross-border cooperation through the Centre.
A legal framework preventing women from working in certain industries	Only certain social groups will benefit (as consumers, professionals or entrepreneurs) from greater integration of clean energy in the ECO region.	High in the short term	Ensure that a gender-responsive perspective is considered in the Centre's CECECO design and that gender equality is treated as a cross-cutting theme in the Centre's mandate and areas of interventions.
A lack of recycling facilities in the region for e-waste and batteries	E-waste and used batteries dumped in the environment can cause environmental and health harm.	High in the medium and long term	
Regional and domestic instability	Instability has the potential to disrupt schedules, delay implementation and cause projects to fail.	Medium	The Centre will attempt to be flexible and take alternative measures in case instability impacts program delivery and use IT when and where possible to reduce the need for travel.

Risk	Foreseen Impact	Likelihood	Proposed Mitigation Measure
The ECO countries will lose interest in the Centre	If the ECO countries are not interested, the Centre will no longer have the resources needed to implement its programmes.	Medium	The Centre must quickly prove its relevance and added value to individual countries. Several early, high-visibility events can support this goal.
The Centre will be considered as competing with other domestic, regional or international projects	The Centre could be seen as competing with other existing projects, thus leading to resources wasted on less-effective activities.	Low	Few organisations cover the whole ECO region working in the same field. Where there are regional organisations, the Centre should focus on expanding their best practices to the whole ECO region and focus on partnerships.

2.3 Defining the Centre's Mandate and Focus

Already implemented in several regions by UNIDO, the centres provide the RECs with the urgently needed technical capacities to coordinate and monitor the implementation of sub-regional energy and climate policies and regulations at the national level. They serve as a knowledge resource facility and provide advice to the Member States on how best to manage the transition towards sustainable energy. By employing cross-border approaches and methodologies, the centres complement and accelerate national efforts in the areas of policy and regulation development and enforcement, capacity development, knowledge and data management, awareness-raising, and the promotion of investment, innovation and entrepreneurship. The centres serve as a hub for supporting various kinds of domestic and international partnerships.

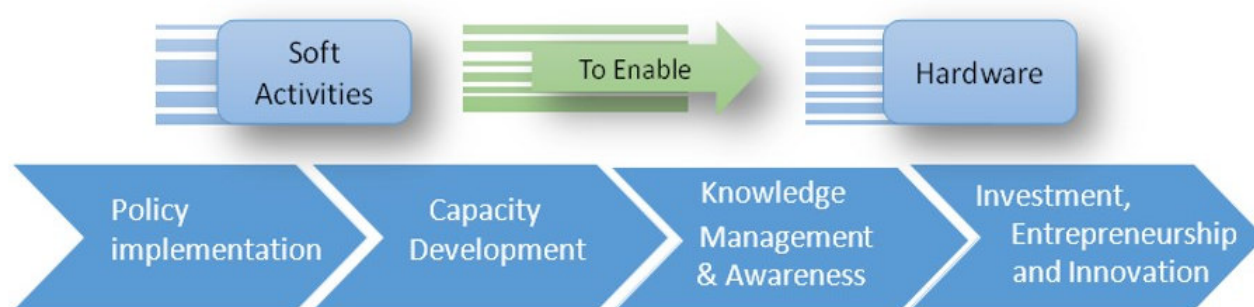


Figure 4: How the Centre can Accelerate and Complement National and Sub-regional Efforts

The main best practices developed from extensive work on setting up centres are summarized as follows:

- › A design tailored to the individual needs and culture of the sub-region;
- › Ownership and leadership by the RECs and their Member States;
- › Well embedded in the sub-regional decision-making and policy development processes;
- › Strong connections with national ministries and policies through a network of national focal institutions;
- › Work complementary to the existing sub-regional institutions.

ECO Vision 2025

Strategic Objective

To enhance energy security and sustainability through wider energy access and trade within the ECO region and beyond.

Policy Environment

Energy demand will grow in pace with the socio-economic development of ECO Member Countries, requiring adequate, efficient, equitable and affordable provision of energy resources and services. In this connection, it is imperative to develop and consolidate common efforts to ensure regional energy sustainability and resilience, in line with the Global Sustainable Development Goals and in coherence with other energy-related activities and projections envisaged in this Vision. Achieving the above strategic objective requires a supportive policy environment which shall include, among others, broad political consensus and involvement of all stakeholders from the public and private sectors. Identification of the energy mix is the independent decision of the countries according to their national circumstances and priorities.

Expected Outcomes

1. Efforts will be made for harmonisation and alignment towards a regional power/electricity market within the ECO Region for harnessing the benefits of larger integrated systems.
2. Energy trade, production, consumption and transit patterns will be enhanced.
3. Enhanced policy coherence for mainstreaming the objectives of the SDGs and the “UN sustainable energy for all” initiative will be encouraged.
4. ECO’s Member Countries will be encouraged for deploying environment-friendly energy technologies to mitigate adverse environmental footprints of energy transfer and trade.
5. A more diverse and resilient energy architecture in the Region will be supported through transformation to renewables and cleaner and sustainable energy sources. ECO’s Clean Energy Centre will be established.

To effectively apply the above principles, reflect local context and ensure ownership and leadership by the ECO and its member states, the Centre’s mandate should be strongly aligned with the ECO energy agenda and ECO Vision 2025, as summarized in the box below.

2.3.1 The Development Goal and Intermediate Outcomes of the Centre

The Centre's overall objective has been established based on the findings of the baseline and needs assessment completed for all the 10 ECO countries, the UNIDO's experience in helping develop and operate various centres in the world, and the strategic goals of the ECO and its members states. The Centre's overall objective has been formulated as follows:

To contribute to increased access to modern, affordable, reliable and sustainable energy services, strong energy security and mitigation of the energy system's negative externalities (e.g., local pollution and GHG emissions) by creating an enabling environment for developing the renewable energy and energy efficiency markets and investments.

2.3.2 The Centre to Be Aligned with the Needs of the Regional Stakeholders

Following GN-SEC best practices, the Centre will be aligned with the needs of regional stakeholders and its design will be tailored to the individual needs associated with the region's context and culture, as discussed below in detail.

- › "ECO Vision 2025" (see the box above). Endorsed at the 22nd ECO Council of Ministers, this Vision stipulates enhancing regional energy security and sustainability through wider energy access and trade as the ECO's strategic objective. It is worth mentioning that 3 of the 8 expected outcomes in the energy segment of "ECO Vision 2025" directly refer to clean energy and energy efficiency goals. In this respect, establishing the ECO Clean Energy Centre will be an explicit action towards accomplishing these goals.⁵
- › Strong overlaps with some sub-regional programmes and organisations include:
 - Central Asia Regional Economic Cooperation (CAREC-1) Energy Strategy 2030 (an 11-country partnership including China);
 - Regional Environmental Centre for Central Asia (CAREC-2) trajectory to becoming a regional knowledge hub in the field of environmental and sustainable development (5 Central Asian countries);
 - The Energy Charter Conference (8 ECO countries are signatories and two are observers.). Of particular interest is Article 19 of the treaty that requires each Contracting Party to minimise the environmental impacts arising from energy use. Building on Article 19 of the Energy Charter Treaty, the Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) defines in more detail the policy principles that can promote energy efficiency and provides guidance on the development of energy efficiency programmes.

⁵ ECO Vision 2025 passed on 28 February 2017 in Islamabad, Pakistan, pp. 5-6.

http://www.eco.int/parameters/eco/modules/cdk/upload/content/general_content/3512/1500446776906us945rcqm2q8kg3ora maosqae2.pdf

- The SAARC Energy Centre (2 ECO countries are members.) platform involves officials, experts, academia, environmentalists and NGOs to tap potential of cooperation in the energy sector, including development of hydropower, renewable and alternative energy, promoting technology transfer, energy trade, energy conservation and efficiency improvement in the region.
- EU4Energy is a regionally focused programme (6 ECO member countries.) designed to support the goals and aspirations of the Focus Countries to implement sustainable energy policies and foster cooperative energy sector development at the regional level.
- › The objectives of several ECO member countries to reduce energy consumption and improve energy efficiency, as described in Chapter 1 above.
- › The objective of SDG 7: By 2030, ensure universal access to affordable, reliable and modern energy services; increase substantially the share of renewable energy in the global energy mix; double the global rate of improvement in energy efficiency. The Centre will also closely coordinate with the SE4ALL partnership on certain activities. The centre will also contribute to SDG 9 on inclusive and sustainable industrial development as well as to SDG 13 on climate change mitigation and adaptation.
- › In line with various MOU on such subjects as sustainable energy and the environment concluded between ECO and numerous UN agencies and other partners, including with UNEP, UNECE, UNDP and ESCAP. These documents have specified arrangements for engaging in bilateral cooperation for the interests of the Member States (see Chapter 4 for more details).
- › The increase of the technical capacity among the ECO member countries required to design, implement and maintain sustainable energy projects adapted to the local needs.
- › The growth of investment in sustainable energy services throughout the ECO region.

2.3.3 Geographic Scope

The proposed geographic scope of the Centre's intervention is defined as follows:

- › Supports interventions in all 10 ECO member countries (Afghanistan, Azerbaijan, Iran, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Turkey, Turkmenistan, and Uzbekistan); the steering committee may decide to include other countries or territories.
- › Supports and executes RE and EE activities and projects which cover one or more ECO member countries.
- › Focuses primarily on activities and projects with regional impact or national projects which demonstrate high potential for scaling up or regional replication.

2.3.4 Technical Scope of Intervention

The Centre will promote and support various types of sustainable RE systems and energy-efficient technologies. An equally strong emphasis will be placed on RE and EE.

Table 5: Target groups and technical focus of the Centre

The Centre's Target Groups	Technical Focus
<ul style="list-style-type: none"> › Governmental institutions (ministries, dedicated RE/EE agencies, electrification agencies, municipalities) › Private, public or public-private companies (SMEs, ESCOs, utilities, installers, suppliers, manufacturers) › Sectoral groups (i.e., chambers of commerce, chambers of engineers) › Individual consultants and project developers › Universities, schools and research centres › NGOs, religious organisations and cooperatives › International organisations 	<p><u>Renewable Energy</u></p> <ul style="list-style-type: none"> › Biomass (electricity generation and improved cookstoves) › Biofuels (biodiesel, bioethanol and biogas) › Waste-to-energy transformation › Geothermal energy (greenhouses, etc.) › Hydroelectric power › Solar photovoltaic › Concentrated solar power › Solar thermal (water-heating, process heat, etc.) › Wind energy › RE and hybrid mini-grids › Sustainable energy storage <p><u>Energy Efficiency</u></p> <ul style="list-style-type: none"> › Sustainable transport › Efficient appliances › EE in buildings › EE measures in existing power plants › EE measures in heat production units › EE in manufacturing facilities › Efficient transmission and distribution › Energy conservation and management

2.3.5 Expected Immediate Outcomes

The Centre is expected to serve as a regional hub and think-tank for sustainable energy issues in ECO member states and will implement programmes, projects and activities together with national partners and implementing agencies in the following outcome areas (specific objectives):

- › Outcome 1: Enhanced regional institutional capacities through the creation of the efficiently managed and financially sustainable Centre.
- › Outcome 2: Enabling policy, legal and incentive frameworks are created and under implementation.

- › Outcome 3: Strengthened capacities of local key institutions and stakeholder groups through the creation and implementation of effective sustainable energy qualification, innovation, certification and accreditation frameworks for sustainable energy.
- › Outcome 4: Increased RE/EE business opportunities for local companies and industry through increased investments in sustainable energy infrastructure, and manufacturing and servicing industries mobilised.
- › Outcome 5: Enhanced awareness of key stakeholder groups on RE and EE opportunities by upscaling the regional mechanisms for data and knowledge management and advocacy.

2.3.6 Socio-economic and Environmental Sustainability

Socio-economic sustainability is at the heart of the design of the Centre. Its design has considered the long-term human resources development and long-term preservation and use of sustainable energy sources as a critical activity that is central to achieving the Centre's objectives.

2.4 Defining the Comparative Advantages of the Centre

UNIDO's experience demonstrates that to create a regional RE and EE market, it is crucial for the centre to create as much as possible the spill-over effects across the result areas and national borders. Any such centre should primarily focus on carrying out activities and projects with regional impact or national projects which demonstrate high potential for scaling-up or regional replication.

The initiatives that overlap with the goals and objectives of the Centre exist in the region. The Centre will be structured in such a way as to complement those initiatives mentioned in Section 2.3.2 above. Very few initiatives in the region cover all the ECO countries, thus providing an opportunity to cooperate with existing projects to expand their scope to include all the ECO countries where feasible and beneficial.

The Centre should avoid directly implementing activities and should work through national organisations where feasible and possible. Offering regionally relevant training will probably be one area that is an exception to this rule, because national training may not meet the regional needs or create connections among the countries.

2.5 Connections with the ECO's Private Sector and Industrial Sector

2.5.1 Roles of the Public, Non-profit and Private Sectors

The Centre will work closely with the public sector, the private sector and civil society to achieve its objectives. Because the Centre is expected to play a coordinating role rather than as an implementing agency, most of its activities are expected to be implemented through partnerships with the public sector (especially through the NFIs as discussed below), the private sector and not-for-profit organisations in the region. The Centre will not compete with these sectors. Instead, the Centre will focus on increasing the opportunities for the private sector to engage in the energy sector, to supply and help develop clean-energy technologies and to foster clean-energy behaviours throughout the region. In several countries in the region, not-for-profit and community-based organisations play a big role in improving energy access and affordability. This is particularly true, for example, in Tajikistan, Pakistan and Afghanistan, where the Aga Khan Development Network plays an important role in both centralised and decentralised energy supply. The Centre should seek out ways to complement and support those organisations.

2.5.2 Options for Developing Public-Private Partnerships (PPPs)

The Centre can use various means to achieve its goals, including forming public-private partnerships itself or in collaboration with the member states and key partner organisations. In the first operational phase, the Centre may try to simplify its organisational arrangements and work with NFIs to structure national and even regional PPPs to achieve specific goals and objectives. The Centre could consider forming PPPs with various actors as a way to encourage mobilisation of local resources, for example, to conduct regional studies in the absence of donors available to support a call for proposals.

3 INSTITUTIONAL DESIGN

The institutional design of the Centre has been guided by the principle of relevance to the needs of the population in the region and the private sector. This institutional design has been verified through broad consultations conducted by the team members in each of the ECO-region countries. The structure of ECO and how the Centre will fit into that structure will inevitably play a significant role in determining the Centre's institutional design. The lessons learned from other centres in the world, as discussed in the previous chapter, have also been considered in the institutional design stage. Although it will be impossible to eliminate all the risks that may undermine the success of the Centre, an effort has been made to consider as many risks as possible; the resulting institutional design reflects this effort to minimize those risks. Particularly, building strong links with ongoing regional and national projects and organisations is expected to play a strong role in ensuring the resilience of the Centre.

3.1 Integrating the Centre into the ECO's Existing Institutional Structure

The Centre will be integrated into the ECO's existing structure. The Centre has been designed according to the context of the ECO Vision 2025 and the climate and energy-related international agreements entered into by the ECO-region countries. A review of the ECO's mandates and activities and the important regional and national programmes and the experience of other centres have informed the proposed design of the Centre. Staffing suggestions, budget proposal, and areas where the Centre should not work all reflect this multitude of influences. The relationships between the Centre and other regional and sub-regional organisations have been mapped out, with the proposed areas of overlap and collaboration, to support detailing the areas of collaboration in the first operational phase.

3.1.1 The ECO's Institutional Structure

The ECO is one of the biggest regional economic groups in the world. The ECO has member countries in Europe, the Caucasus, the Middle East and South Asia, with a total population of more than 460 million and a total area of over 8 million square kilometres, reaching from the Russian border to the Persian Gulf and from the Chinese border to Europe. The ECO's overall objective is to foster the sustainable economic development of its member states and the whole ECO Region.

Member States and Observers

Currently, the following 10 countries are members of the ECO: Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkey, Turkmenistan and Uzbekistan (see the map of the region in Figure 1).

Currently, the ECO has the following countries as the Observers:

- › The Turkish Cypriot State (since October 2014);
- › Cooperation Council of Turkic Speaking States (since October 2014)
- › International Energy Charter (since February 2017)

The ECO's Organisational Structure

The ECO functions through its intergovernmental network, secretariat and specialized agencies and regional institutions. The ECO's intergovernmental character is reflected through various bodies, including the meetings of the heads of state or government, the Council of Ministers (COM), the Regional Planning Council (RPC), the Council of Permanent Representatives (CPR), the sectoral ministerial meetings as well as expert groups, working groups, committees, etc. The ECO's organisational structure is shown in the figure below (see Appendix II for a detailed description of the bodies represented). The Centre (ECO-CEC) is also shown in the following diagram, as one of the regional institutions.

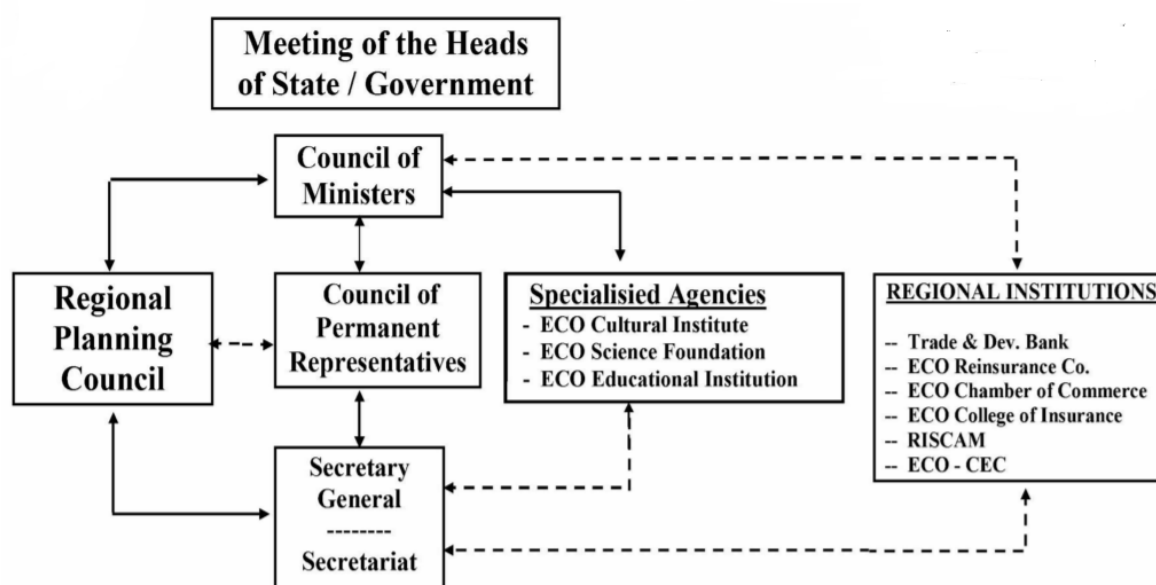


Figure 5: Organisational Structure of the ECO⁶

ECO Secretariat

ECO Secretariat is located in Tehran, Iran. The Secretariat is responsible for supporting the member countries and the ECO with secretariat services, including advocacy support for meetings and programmes. The Secretariat is also engaged in initiation, implementation and monitoring processes of the ECO's regional projects and programmes. The ECO's external relations are also managed by the Secretariat. The ECO Secretariat's organisational structure is illustrated in the figure below.

⁶ Approved by the 18th Council of Ministers (COM) held on 9 March 2009 at Tehran, the Islamic Republic of Iran. A full line represents a consultative relationship, and a dotted line indicates a hierarchical relationship with the junior agency reporting to the executive organ for directives.

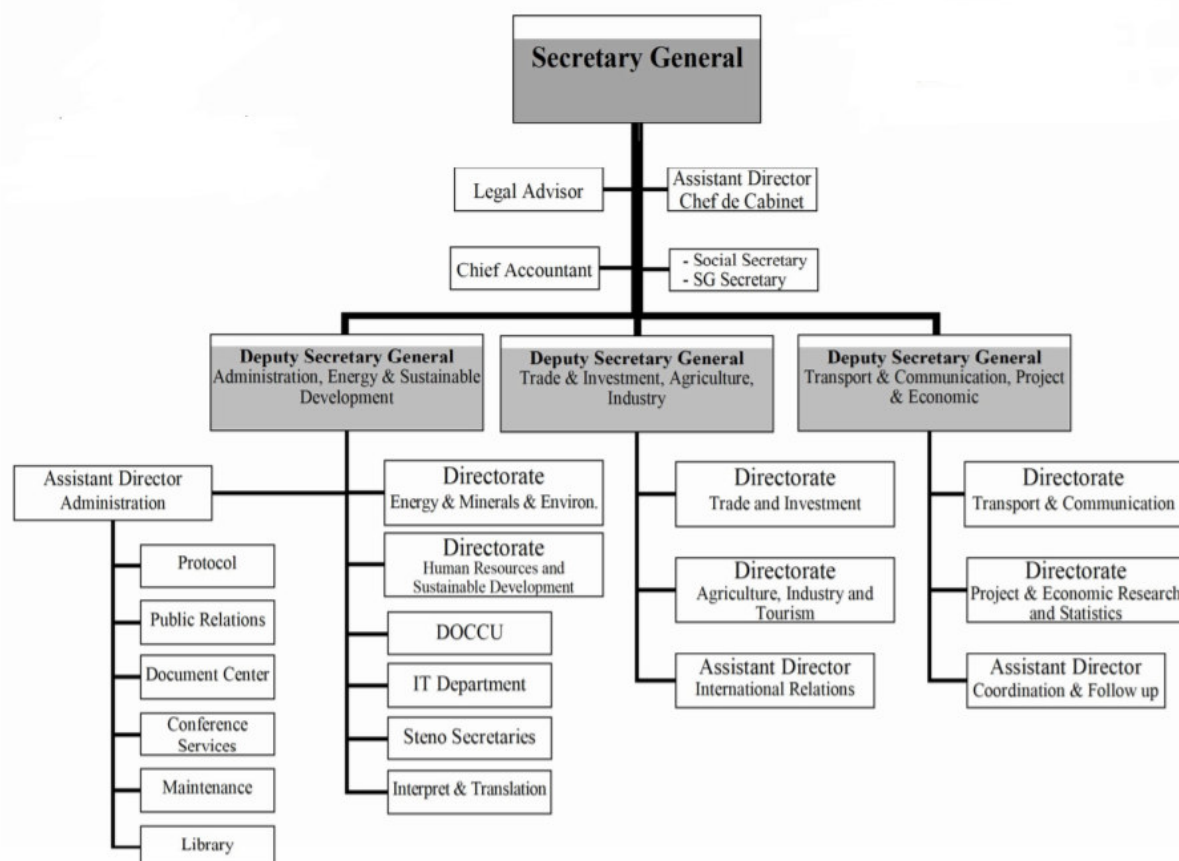


Figure 6: The ECO Secretariat's Organisational Chart

3.1.2 Integrating the Centre into the ECO's Institutional Structure

According to the "Modalities for the Establishment of Regional Centres and Specialized Units and Grant of Affiliation to Non-ECO Bodies and Organizations"⁷, the ECO's regional centres are classified into two categories. Category A agencies are those which are at the core of the ECO's agenda and for which contribution is being made by the member states or would be made in the future. Category B agencies are not central to the organisation's core objectives.

⁷ As endorsed by the 19th RPC and approved by 145th CPR as authorized by the 17th COM, Herat, 20 October 2007. See http://eco.int/parameters/eco/modules/cdk/upload/content/general_content/3512/1499592988681i4ego9qkkv75apdg5qsvg04ru7.pdf

As shown in Figure 5, the ECO Clean Energy Centre (ECO-CEC) is listed and considered a regional institution within the ECO. Considering the categories of regional centres described above and in light of the ECO Vision 2025's strong focus on clean energy (see Section 2.3 above), Econoler proposes that the Centre be considered as a Category A regional centre within the ECO institutional structure, placing it at the core of the ECO's agenda.

In line with the established modalities for Category A regional centres: "the costs of establishing the centre (capital expenditure, including building, etc.) should be borne by the host countries, while cost of running the institution (day to day expenses as well as programmes and activities) should be borne by member states which sign up to its charter according to the formula finalized through negotiation"⁸.

UNIDO's experience with helping establish and operate other similar centres strongly suggests that a competitive bidding procedure to select the organisation to host the centre strongly supports local buy-in and ownership. This insight is backed by the findings of the risk analysis performed by this study.

Therefore, Econoler proposes that the Centre be established through a competitive bidding procedure to seek proposals from organisations or groups of organisations in the ECO region with interest and ability to host the Centre. In the initial phases, several respondents to the questionnaires mentioned the benefits for their countries in hosting the Centre and informally expressed their initial interest. Several organisations possessing specialised operational and management skills relevant to the Centre were also identified, these organisations may find interest in becoming thematic hubs for the centre in their own country.

The host organisation shall then report on their activities of hosting the Centre to the ECO Secretariat and be managed by the Directorate of Energy, Minerals and Environment, under the supervision of the Deputy Secretary General for Administration, Energy and Sustainable Development. The reporting requirements can be negotiated and Econoler recommends requiring at least the submittal of an annual report.

⁸ ECO "Modalities for the Establishment of Regional Centres and Specialized Units and Grant of Affiliation to Non-ECO Bodies and Organizations" page 2, http://eco.int/parameters/eco/modules/cdk/upload/content/general_content/3512/1499592988681i4ego9qkkv75apdg5qsvg04ru7.pdf

3.2 The Centre's Governance Structure and Internal Decision-making Process

If the proposal for a competitive bidding procedure is accepted, then some flexibility for the governance structure and internal decision-making process will be required. Generally, a competitive bidding procedure involves launching a public call for proposals from organisations in the region. The official call-for-proposals document briefly explains the purpose and goals of the Centre and could annex this paper as an example of the structure sought. The call should clearly state that the winning bidder must be ready to help set up the Centre and help cover its operating costs, according to the Category A modalities, which require the host country to bear the cost of establishing and operating the Centre. The winning bidder of the call must be prepared to obtain funds from its national government or other sources to dedicate to the Centre. The winner bidder will benefit from the Centre's visibility and opportunities to engage with various stakeholders through the Centre's operations. A competitive selection process should include key stakeholders of the start-up phase, including UNIDO.

3.2.1 The Centre's Legal Status

Based on the experience of other similar centres, Econoler proposes that the Centre be established and operated as a centre without any time limit to its life as long as resources are available to support it. As one of the ECO's Category A regional centres, the Centre's legal status should be investigated to determine whether completing its legal-entity registration in an ECO-Region country is mandatory or beneficial in its first operational phase.

To simplify and ensure the successful legal set-up and registration and operational start-up in the first operational phase, the Centre should comply with the legal, administrative and financial frameworks and policies of the host organisation and the host country. Doing so will provide the Centre with a smooth start and help lay solid administrative and organisational foundations.

Econoler proposes delegating the day-to-day management and decision-making duties to the Centre's director and putting the Centre's Steering Committee in charge of overseeing the Centre's policy direction.

UNIDO will provide technical services and mentoring throughout the first operational phase of the Centre.

3.2.2 Official Name of the Organisation

The following names have been used in the preparatory phase:

- › ECO Clean Energy Centre (ECO-CEC)
- › Clean Energy Centre of ECO (CEC-ECO)
- › ECO Sustainable Energy Centre (ECO-SEC)
- › Centre for Sustainable Energy ECO (CSE-ECO)

Each of the above four proposed names conveys the main features of the Centre and they are somewhat similar. Econoler prefers the last one, namely CSE-ECO, because the term, “sustainable energy”, refers to a wide range of efforts and actions associated with EE, RE and clean energy. The official name will be chosen and confirmed during the validation workshop.

3.2.3 Location of the Centre’s Secretariat

According to the ECO modalities for Category A regional centres, the location and some of the costs of hosting the Centre shall be borne by the host country. Therefore, the location of its secretariat will be chosen in the competitive bidding process and the bidders can propose locations⁹. Previous experience with regional centres suggests that locating the Centre within or close to an established high-profile and respected organisation will help build the reputation of the Centre in the first phases. An alternative will be to provide the Secretariat with a temporary and rotating location among the ECO countries and perhaps have the Secretariat’s office attached to the in-country Thematic Hub over the period when the Secretariat is located in a country.

3.2.4 Governance and Integration into the Regional Institutional Structure

As a Category A Regional Centre of the ECO, the Centre should be fully integrated into the regional energy decision-making processes. Econoler proposes that the Centre develop and carry out its activities through a network of THs and NFIs, as described below. UNIDO will provide technical services and mentoring throughout the first operational phase of the Centre.

Econoler proposes that the Centre be guided by a Steering Committee (SC), which will meet at least once a year. The SC meetings may be held with the High Level Expert Group (HLEG) on energy. The SC may decide to establish a Technical Advisory Unit (TAU) comprised of international and local technical experts. The TAU can meet via videoconference or in person before a SC meeting is held to review the technical documents (e.g., work plans) to be approved by the SC. The TAU is expected to give non-binding recommendations and make its decisions in consensus.

In summary, the proposed institutional structure of the Centre includes:

- › A Steering Committee, including probably a technical advisory unit (TAU);
- › A secretariat (Its location is to be confirmed in the competitive bidding process.);
- › National focal institutions (NFIs) based in each ECO member country;
- › Thematic Hubs (THs).

A conceptual summary of the proposed institutional structure is provided in Figure 7 below.

⁹ Some of the local consultants engaged in the project have expressed doubts about the workability of a competitive bidding process in the region. Having studied international experience Econoler believes this remains the most viable and fair manner to select the host for the Centre.

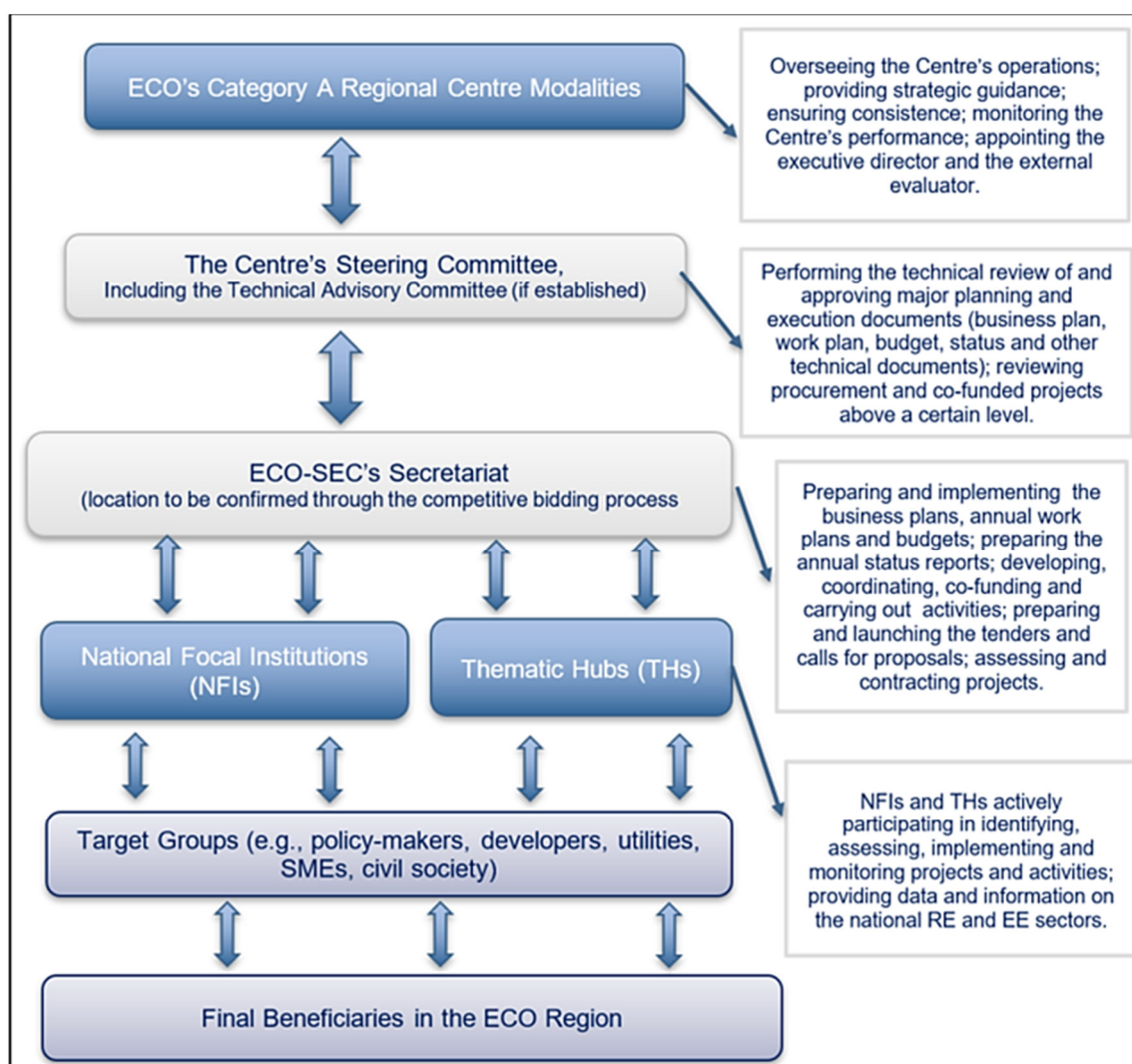


Figure 7: The Governance Structure Proposed for the Centre

Steering Committee (SC)

The proposed SC is expected to provide the strategic and overall direction to the Centre. It will report periodically at the agreed-upon intervals (preferably at least once a year) to the ECO through the Directorate of Energy, Minerals and Resources and the Council of Ministers, as required. Specific activities undertaken by the SC shall be agreed upon at the validation workshop. These activities may include the following: providing strategic guidance; performing the technical review of and approving the major planning and execution documents (the business plan, the work plan, the budget, status reports and other technical documents); and reviewing the procurement and co-funded projects above a certain level of monetary value. It should meet regularly following the TAC meetings and then report to the ECO and other partners on the progress made and the activities completed.

Econoler recommends developing and implementing a consensus-based decision-making process for the SC. Within an administrative body comprised of various representatives, such as the SC, a consensus-based decision-making process offers an opportunity for debating and reconciling different views. The proposed membership of the SC benefit can provide helpful means to harness the strengths of the regional and international actors with broad experience in the energy sector. For example, it can be agreed on that some decisions can be proposed via email according to the non-objection principle.

The following functions have been proposed for the SC to fulfil:

- › Offering strategic direction to the Centre's secretariat in the effort to reach its objectives;
- › Proposing strategic flagship programmes (targeting high-visibility and low-cost activities);
- › Finalising the Centre's business plan, annual work plan and budget proposed by the Centre's secretariat;
- › Monitoring the progress and performance of the secretariat and the Director;
- › Finalising the annual reports, audited financial statements and evaluations;
- › Finalising the Centre's organisational chart;
- › Recommending external auditors and finalising the audit reports;
- › Recommending external evaluators and finalising the evaluations and management responses;
- › Finalising procurement and co-funding for projects exceeding a certain monetary value;
- › Reviewing the composition and membership of the SC;
- › Helping build and enhance the Centre's visibility across the ECO region and internationally.

The composition of the Centre's SC will be decided on during the validation workshop. A proposed plan for its composition is shown in Figure 8 below to help get the discussions started.

Considering the importance of gender equality advocated at various stages and highlighted by the baseline study, Econoler suggests that at least 30% of the SC's members be female, where possible.

The core partners proposed are defined as those partners who support the technical and institutional setup (administrative budget) of the Centre by making considerable long-term contributions. UNIDO, the Government of Austria, the ECO and possibly other contributing donors should join the SC as the initial core partners.

Econoler suggests that once the Centre is established, other core donor partners be invited to join the SC, depending on their financial contributions to the Centre.

Once the SC is established, the TAC meetings can be open to non-core partners, who want to align their activities with those of the Centre or are considering co-funding activities as part of the annual work plan. Those donors actively operating in related projects in the region (such as ABD, EU, WB, and EBRD) can be regularly or occasionally invited to attend TAC meetings.

At the validation workshop, the private sector's and civil society's interests should be reflected in the Centre's annual work plans. Econoler suggests making it mandatory to involve relevant stakeholders in the NFIs and THs in the process of reviewing the Centre's annual work plans. To support this involvement, the minutes of the meetings held with private-sector stakeholders should be shared with the Centre's secretariat. Doing so is expected to ensure that the private sector and local industrial enterprises appreciate the relevance of the Centre's interventions.

The Steering Committee

Three representatives from each of the ECO member countries on a rotating basis with a two or three-year term with a good balance of representatives from the industrial, private and public sectors.

Representatives from key regional agencies on a rotating basis.

One representative from the regional industry associations and networks.

One representative from each of the core donor partners (UNIDO and the Government of Austria) and others.

The Centre's director.

Non-voting members: the Centre's staff and the invited observers.

Figure 8: A Proposed Plan for the Steering Committee's Composition

National Focal Institutions

Based on the experience of other regional centres, Econoler proposes that the Centre establish a strong network of NFIs. Typically, the NFI is nominated by the ministry responsible for energy in each member country. The NFI nominated is often a country's lead governmental agency in the national energy sector, the department in charge of energy or the energy planning unit. The Centre activities will be carried out in cooperation with the NFIs or other entities in the public and private sectors. The Centre typically tries to build strong links with other governmental institutions in charge of overseeing the environmental and social aspects related to sustainable energy and particularly links with power utilities and transport authorities.

Typically, duties of the NFI include:

- › Participating actively in identifying, assessing, implementing and monitoring the Centre's projects and activities;
- › Consulting with the private sector and civil society to review the Centre's annual work plans and suggesting priority activities;
- › Providing data about the national RE and EE sectors;
- › Coordinating the Centre's activities in its country or territory.

Based on the experience of other regional centres, Econoler suggests including a special programme aimed at building the capacities of the NFIs in the initial activities of the Centre.

The Secretariat

The Centre's secretariat is expected to be physically located in offices in the host country and ideally attached to an existing institution with a strong reputation for good management and engagement in the energy sector. An alternative that has been proposed will be to establish a virtual secretariat or one more closely attached to the THs so that the seat of the Secretariat can move among the THs on a rotational basis. This alternative can be considered in greater depth at the validation workshop.

One official language or several official languages should be decided upon and English and Russian have both been proposed. The Centre could have the official and the working languages to be inclusive of all the countries in the region.

Typically, the Centre has a small multinational team comprised of staff from the ECO region and other countries beyond the region. At the initial stage, temporary or project-based staff should be employed. The staff size could grow as more project funding is mobilised.

The Secretariat shall prepare the annual work plan, implement the planned activities, prepare the status reports and submit the documents for review and guidance from the SC. The day-to-day activities of the Centre are typically managed and supervised by the Director, who is primarily responsible for implementing the Centre's mandate and work plan approved by the SC. The Director will also lead the effort to implement the Centre's funds mobilisation strategy.

The following duties have been proposed for the Centre's Secretariat:

- › Implementing the decisions made by the SC and monitoring the progress made in implementing the approved annual work plans;
- › Organising and hosting the SC meetings;
- › Developing and updating the Centre's business plan;
- › Performing a regular review of the relevance, effectiveness, efficiency and sustainability of the Centre's structure, strategy and operations;
- › Regularly compiling information and data provided by the NFIs;

- › Preparing the annual work plans, status reports, and financial reports in cooperation with the NFIs;
- › Engaging in proactive fund-raising;
- › Cooperating with external auditors and evaluators assigned by the SC;
- › Implementing activities approved in the annual work plan in cooperation with the NFIs;
- › Preparing periodical reports on the progress and achievements made by the Centre in relation to the indicators set in the business plan.

The Secretariat is expected to manage the Centre's communication by carrying out the following main tasks:

- › Engaging relevant stakeholders in RE and EE development dialogue, including public institutions, civil society and the private sector;
- › Making efforts to harmonise the Centre's activities with other donors' initiatives and to align the Centre's activities with local initiatives and support systems;
- › Promote awareness-raising about RE and EE in the ECO region;
- › Arranging for effective public relations and publication of information;
- › Forming partnerships with other local and international technical institutions;
- › Networking with national and regional energy research institutions;
- › Coordinating the publication of a regional energy magazine.

The organisational chart proposed for the Centre's Secretariat is shown in Figure 9 below.

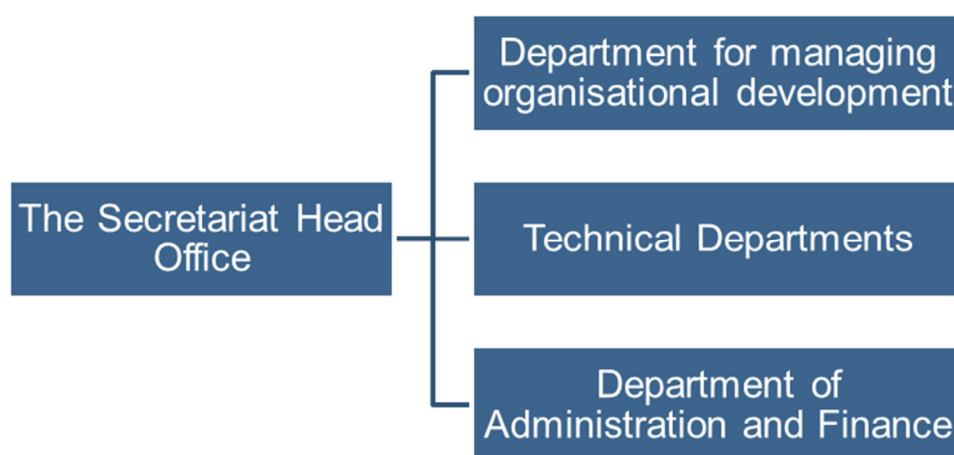


Figure 9: The Organisational Structure Proposed for the Secretariat

Thematic Hubs

Some flexibility in the design needs to be provided for the proposals of a host institution to be collected in the competitive bidding process. One interesting option would be to consider including a central host institution in a hub and spoke model with spokes that host various thematic hubs. This structure reflects in part the consultations that took place, reflecting some suggestions that particularly smaller countries may find specialisation in a particular field to be strategic. A hub-and-spoke organizational structure provides the opportunity to benefit from particular specialisations in some of the ECO countries and the support of a willing host organization, as represented in Figure 10 below. This structure could enable the Centre to locate its office close to an existing organisation and enable each thematic hub to be also located near appropriate specialized organisations in the ECO countries. As previously mentioned, an alternative concept is for a rotating host to circulate among the thematic hubs in several countries.

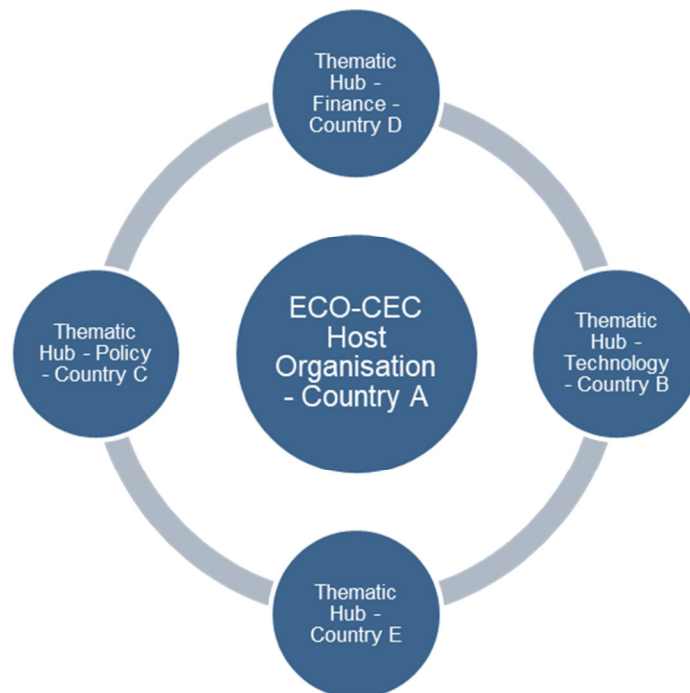


Figure 10: A Proposed Concept of the Hub-and-spokes Organisational Structure Involving Thematic Hubs

3.3 Defining the Overlapping Areas of Intervention with Other Thematic and Regional Programmes

As highlighted in Table 2, there are a reasonable number of ongoing regional initiatives involving some ECO countries. However, this table cannot be considered exhaustive. These initiatives can be divided into the following six project categories:

- › Policy Development
- › Financial Initiatives
- › Centralised Power Supply
- › Decentralised Power Supply
- › Demand-side Management
- › Gender and Green Economy

The implementing agencies or donors and the project names are listed in Table 6. Among the policy-development projects, we can see strong support for the energy and water sectors from major donors, including the EU project in six ECO countries and the ADB project in five. As for the category of financial initiatives, major donors are supporting projects being carried out in multiple countries, or such projects are being replicated across multiple countries, as in the case of the EBRD's Sustainable Energy Finance Facilities in Turkey and the Kyrgyz Republic. Several power supply (both centralized and decentralized) projects are being carried out in a smaller number of countries. The USAID's project is being implemented in two countries and the ADB's, three. Two demand-side-management projects are being undertaken by at least five countries. All these initiatives are concerned with those areas where the Centre can align its cross-cutting areas with the existing programmes in the region. Certainly, all these projects are not evenly distributed across the ECO region and involve only some of the countries. All these projects present potential opportunities to replicate or expand the initiatives that have successfully operated in some ECO countries to other member countries and even the whole region.

Table 6: Regional Projects Identified by the BNA Study

Category of RE/EE Project	Multi-country or Sub-regional Initiatives	Implementing Agency or Donor	Project Name
Policy Development	3	Asian Development Bank (ADB)	Central Asia Regional Economic Cooperation: Power Sector Regional Master Plan
		European Union (EU)	Support for the Energy Market and Sustainable Energy in the CIS (SEMISE)
		The World Bank, the European Union, State Secretariat for Economic Affairs (SECO) and the Department for International Development (DFID)	Central Asia Water and Energy Sector Development Programme
Financial Initiatives	3	UNDP (Istanbul Regional Hub for Europe and the CIS) and OPEC Fund for International Development (OFID)	Energy Access SMEs Development Project
		European Bank for Reconstruction and Development (EBRD)	Sustainable Energy Efficiency Financing Facility (SEFF)
		The United Nations Economic Commission for Europe (UNECE)	Green Bridge Partnership Programme
Centralised Power Supply	1	USAID and Tetra Tech Inc.	Regional Security, Efficiency and Trade (RESET)
Decentralised Power Supply	2	Unknown Implementing Agency	Power supply of rural settlements using solar power stations in the highlands
		ADB, EQO-NIXUS	Floating Solar Energy Development
Demand-side Management	2	EU, SOFRECO, AF Consult, SEVEN and Sodruzhestvo	Energy Conservation Initiative in the Buildings Sector in Eastern Europe and Central Asia (ESIB)
		UNECE	Strengthening Cooperation in the Use of Advanced Technologies in EE and RES
Gender and Green Economy	0		

The real gap highlighted by Table 6 is the lack of regional gender projects. However, single-country gender projects are being implemented with the support of large agencies and donors, including the EBRD, ADB and UNDP. The agencies and the titles of single-country gender-related projects are listed in Table 7 below. Some of the gender-focused projects are run by smaller implementing agencies, have more limited scopes and outcomes, including practical technical training for relatively small numbers of beneficiaries and focus on initial steps, including the steps for founding new organisations filling local needs. Considering the disproportionate impacts of energy on women and the additional challenges faced in trying to benefit from and entering the energy sector, as detailed in the BNA, gender equality in energy may constitute a clear niche market where ECO can advance a key agenda for the region.

Table 7: Single-country Gender-related Projects in the ECO Region Identified by the Baseline Study

Implementing Agency or Donor	Project Name	Country
EBRD	Green Economy Transition (GET) Policy Dialogue Framework: Design and Launch an Evaluation and Learning Activity	Tajikistan
EBRD and GCF	Programme for Supporting Renewable Energy and Promoting Gender Equality	Kazakhstan
ADB and Agency for Technical Cooperation and Development (ACTED)	Solar Panel Technician Training for Women in Pakistan	Pakistan
Asian Development Bank (ADB)	Strengthening Technical and Vocational Education and Training	Tajikistan
World Bank Group	Planning and Capacity Support Project of the Afghanistan Reconstruction Trust Fund (ARTF)	Afghanistan
Organization for Security and Co-operation in Europe (OSCE)	Programme Office in Astana, Programme on Green Growth	Kazakhstan
United Nations Development Programme (UNDP)	Sustainable Energy Solutions for Rural Communities under the UNDP “Jashyl Ayil” Initiative	The Kyrgyz Republic
United Nations Development Programme (UNDP)	Programme for Development of “Green” Economy in the Kyrgyz Republic for 2019- 2023	Kyrgyz Republic
International Foundation “Roza Otunbaeva’s Initiative”, with support from the Democracy Commission of the US Embassy in the Kyrgyz Republic	Women in STEM	The Kyrgyz Republic
The Canadian Government	Foundation of the Turkish Women in Renewables	Turkey
International Labour Organization (ILO)	More and Better Jobs for Women: Women’s Empowerment through Decent Work in Turkey	Turkey
UNDP	Turkey’s Engineer Girls	Turkey

3.4 Defining the Relationship between the Centre and Other Regional Organisations and Other Institutions including the Private Sector

The ECO Region overlaps with a part of several other regions, some of which have projects and programmes that partly overlap with the activities proposed for the Centre. Virtually none of these other regional projects impact all 10 ECO countries. As a result, the Centre could begin by examining some of the ongoing projects and considering their expansion across the whole ECO region. This may be the case, for example, for the SAARC Energy Centre in Islamabad; this centre counts two ECO member states among its membership and has been in operation in South Asia since 2005. Similarly, the Central Asian Regional Energy Centre (CAREC-2) operates in five ECO member countries and has been engaging in dealing with the issues that may overlap with the Centre, but CAREC-2 cannot reach out to all the 10 ECO member countries.

Econoler proposes that the centre's role be to engage in mutually beneficial activities with these complementary organisations. As suggested, expanding their reach geographically of valuable ongoing or past projects is one immediately visible activity that the Centre can engage in. The Centre's projects can also be designed to fit in with existing aspirations, such as the strategy defined by CAREC-1 in its CAREC 2030 vision.¹⁰

The Centre's primary activities are expected to involve leading and coordinating the efforts to develop markets for RE and EE technologies and services in the region. Most of the actual implementation of the Centre's programme and projects is expected to be done through identified national institutions, the private sector and NGOs in the ECO Region that will serve as operating or implementing agencies. Training programmes organised by the Centre can take place at its headquarters. Due to cost and logistical challenges, distance learning is likely to be cost-effective, when and where feasible. In addition to serving as a coordinating centre, the Centre is expected to be responsible for developing regional programmes and mobilising funds. To this end, the Centre's director should be strongly supported by all partners such as UNIDO, the Government of Austria and the ECO.

Implementation through national institutions, the private sector and NGOs is expected to promote greater ownership of the Centre's projects and programmes, increase the chances of achieving sustainability, ensure that the regional standards are upheld, and leverage the capacity already existing in the region.

¹⁰ See <https://www.carecprogram.org/uploads/2017-CAREC-2030.pdf>

Based on its own knowledge and by collecting the necessary information and data, the Centre should establish an inventory of all the national institutions and agencies, including universities, research centres, advocacy groups and national professional associations working in its areas of mandate. The institution or national body to be selected for the Centre to collaborate with in implementing specific projects can be determined on a case-by-case basis. The Centre will be mindful of the significant differences across member states in terms of the level of capacity development, needs and resource endowments and will adopt a customized approach tailored to the needs of each country in developing and implementing its programmes.

At the international level, the Centre is expected to closely cooperate with other centres of excellence in both developed and developing-country regions. Other regional and global networks with which the Centre can form ties include SE4ALL, the International Renewable Energy Agency (IRENA), the Renewable Energy and Energy Efficiency Partnership (REEEP), REN21, and the Global Forum on Sustainable Energy (GFSE). The Centre is expected to collaborate with similar international organisations in those areas of mutual interest, such as capacity-building, technology transfer and knowledge management. The Centre can also play a major role in strengthening South-South cooperation, such as by joining other regional centres in Central Asia, South Asia, the Middle East and Europe to share experience and develop partnerships.

3.4.1 Meetings among the Partners and Donors

To promote the Centre's operations, holding a meeting which brings together various partners and donors every two to three years would be a valuable occasion for various partners and donors to interact and make suggestions on how to best achieve the goals and objectives of the Centre.



4 TECHNICAL DESIGN

The technical design begins with a results framework where proposed outcomes, indicators, and baselines are detailed. Many of these points will need to be confirmed at the validation workshop. Based on an initial rough framework, the required human resources, budget forecast and funding mobilisation strategy have been laid out.

4.1 Results Framework

Table 8: A Results Framework Proposed for the Centre

Expected Results	Indicators	Baseline Data	Targets	Means of Verification	Risks and Assumptions
Ultimate Outcome					
Increased access to modern, affordable, reliable and sustainable energy services, energy security and mitigation of negative externalities of the energy system (e.g., local pollution and GHG emissions) by creating an enabling environment for renewable energy and energy efficiency markets and investments.	<p>% increase of the population with access to modern, reliable and affordable energy services.</p> <p>% increase of RE's contribution to the electricity mix of the ECO Region.</p> <p>% increase of investments in RE and EE projects in the ECO Region.</p> <p>% decrease of GHG (tCO₂) emissions through the RE and EE projects implemented.</p> <p>The number of direct or indirect jobs created.</p> <p>% increase of registered and active local companies in the RE and EE sectors.</p>	Affordability of energy is a challenge in many countries. Low levels of RE and EE investment. A lack of local energy companies. Energy costs and availability hamper socio-economic and industrial development in the ECO countries.	<p>XX% increase of the population with access to modern, reliable and affordable energy services.</p> <p>XX% increase of RE's contribution to the electricity mix.</p> <p>XX USD in new investment in RE and EE projects.</p> <p>XX% decrease in GHG emissions through the RE and EE projects implemented.</p> <p>At least XX jobs (direct or indirect) created in the RE and EE sectors.</p> <p>XX% increase in the number (or turnover) of local companies in the RE and EE sectors (XX% in the manufacturing sector).</p>	<p>Regional statistics about the investment in RE and EE projects in the region.</p> <p>Regional statistics about the GHG emissions.</p> <p>Regional statistics about energy balances.</p> <p>National and regional policy and strategy papers.</p>	<p>› Investments in RE and EE projects continue to be perceived as feasible and viable options.</p> <p>› Regional development of policies and legal frameworks for energy continues and creates a favourable environment for sustainable energy.</p> <p>› A stable political situation in the region.</p>

Expected Results	Indicators	Baseline Data	Targets	Means of Verification	Risks and Assumptions
Intermediate Outcomes					
Outcome 1: Enhanced regional institutional capacities through the creation of the effectively and efficiently managed and financially sustainable Centre.	1. The number of additional RE and EE experts (disaggregated) working with the Centre on sustainable energy issues. 2. The number of major RE and EE projects and programmes implemented by the Centre. 3. The financial resources for the Centre's activities mobilised and funding agreements for the second operational phase signed. 4. The ratings given by the external evaluator concerning the relevance, effectiveness, efficiency and impact of the Centre. 5. The percentage of the envisaged outcomes and activities in the Centre's project documents achieved and carried out.	A relative lack of capacities in the sustainable energy sector in the ECO region. Slow implementation of national and regional RE and EE policy commitments. The need for enhanced technical and implementation coordination capacities.	1. At least XX (5?) additional RE and EE experts are working with the Centre on regional sustainable energy issues. ¹¹ 2. At least XX (10? Or 1 in each member state?) major RE and EE programmes or projects are implemented by the Centre. 3. At least XX million (6?) USD for the Centre's activities is mobilised and sufficient funding for the second operational phase is secured. 4. High scores given by the external evaluator confirming the relevance, effectiveness, efficiency and impact of the Centre.	› Staff contracts. › Business plans and work plans. › Annual reports. › External evaluator's report.	› Availability of funding from the host institution and the development partners to finance the Centre. › Adequate financing and staff resources made available in a timely manner. › Key staff remains in position or are replaced efficiently.

¹¹ In this chart, XX denotes a value that has not yet been defined. In brackets, a proposed value is suggested followed by a question mark. The values are to be discussed at the validation workshop and completed in this chart.

Expected Results	Indicators	Baseline Data	Targets	Means of Verification	Risks and Assumptions
			5. At least XX% (80%?) of the envisaged outcomes and activities in the Centre's project document have been achieved and carried out.		
Outcome 2: Enabling policy, legal and incentive frameworks created and under implementation.	1. The number of studies of the policy, legal and incentive frameworks in ECO member countries published. 2. The number of ECO countries implementing the changes to the policy frameworks.	Relatively few enabling policies implemented. The gap between national commitments and local actions. The incentive frameworks do not exist or have a weak impact on implementation.	1. At least XX (5?) studies of the policy frameworks in the ECO member countries have been published. 2. At least XX (5?) ECO member countries have updated their policy frameworks in line with a more enabling environment.	› ECO member countries' statistics and reports. › A list of publications.	› ECO member countries can be mobilised. › Policy studies can be funded. › Cooperation with development agencies.
Outcome 3: Strengthened capacities of local key institutions and stakeholder groups through the creation and implementation of effective sustainable energy qualification, innovation, certification and accreditation frameworks for sustainable energy.	1. The number of accreditation frameworks created. 2. The number of individuals (disaggregated) receiving training to obtain sustainable-energy qualifications. 3. The number of national research institutions involved in regional applied research programmes under implementation.	Weak capacities of key institutions and stakeholders in the sustainable energy sector. Very weak mainstreaming of gender-related aspects.	1. At least XX (1?) new regionally recognised training accreditation framework has been created. 2. At least XX (20?) people have begun an accredited training programme.	› Accreditation scheme documents. › Project documents.	› The involved organisations and countries accept and implement the accreditation scheme. › The national research institutions agree to become engaged in relevant research.

Expected Results	Indicators	Baseline Data	Targets	Means of Verification	Risks and Assumptions
			3. At least XX (5?) national research institutions have been involved in implementing at least 3 regional applied research programmes on RE and EE.		
Outcome 4: Increased RE/EE business opportunities for local companies and industries through increased investments in sustainable energy infrastructure, and the manufacturing and service industries mobilised.	1. The volume of investment in the implementation of the Centre's projects mobilised. 2. The number of small-scale and medium-scale RE and EE projects co-funded by national institutions with the support of newly created regional support schemes. 3. The volume of in the conducting of feasibility studies for innovative RE and EE projects addressing key industrial sectors.	A lack of tailored RE and EE financing instruments for small-sized and medium-sized RE projects and EE solutions. A lack of RE and EE programmes targeting key industries in the ECO Region.	1. XX million USD of additional investment in RE and EE projects including XX million USD of private sector investment. 2. The national institutions (e.g., banks) in at least XX (2?) countries have co-funded XX (20?) small-scale and medium-scale RE and EE projects with support from the newly created regional support schemes. 3. The feasibility studies and energy audits of innovative RE and EE projects addressing key industrial sectors with an investment volume of at least XX million USD (10?) have been conducted.	› Reports on the implemented projects. › The project proposals and concept notes developed by the Centre.	› The private sector has greater interest in RE and EE investment in the region.

Expected Results	Indicators	Baseline Data	Targets	Means of Verification	Risks and Assumptions
Outcome 5: Enhanced awareness among key stakeholder groups of RE and EE opportunities through the upscaling of regional mechanisms for data and knowledge management and advocacy.	1. The strengthened regional RE and EE information and data management system. 2. The number of national institutions providing up-to-date RE and EE data to the system on an annual basis. 3. The number of experts (disaggregated) in the ECO Region participating in The Centre's RE and EE conferences by the end of the first operational phase (with at least 30% of the invited panellists being female). 4. The percentage of the population that have been reached by regional awareness RE and EE campaigns supported by the Centre.	Weak existing regional and national information systems. A lack of reliability and relevance for the private sector and the industrial sector. No systematic collection of sex-disaggregated baseline data. Awareness among key stakeholders of RE and EE varies considerably across the ECO region. No consistent information on the local sustainable energy industry available.	1. The regional RE and EE information and data management system has been established and is operational. 2. At least 10 institutions in 10 ECO member countries provide up-to-date baseline data on an annual basis (including sex-disaggregated data). 3. At least XX (100?) experts from the ECO Region participate in the Centre's RE and EE conferences by the end of the first operational phase (with at least 30% of the invited panellists being female). - At least XX% (15?) of the population in the 10 ECO member countries have been reached by regional RE and EE awareness campaigns supported by the Centre.	A website dedicated to sharing information has been created.	Knowledge management services of the Centre are well received by actors in the ECO Region's energy sector.

Expected Results	Indicators	Baseline Data	Targets	Means of Verification	Risks and Assumptions
Outputs					
Output 1.1: The Centre has been launched and has enough funding to complete the first operational phase	Offices with enough and appropriately laid out space and the right equipment to accommodate the staff of the Secretariat.	There is no existing regional RE and EE Centre that covers all the 10 ECO countries.	Offices with enough and appropriately laid out space and the right equipment to accommodate the staff.	Office space and invoices	The competitive bidding procedure has been completed in a timely fashion and the host organisation is fulfilling its role.
Activities					
1.1.1 Completing the bidding procedure and selecting the host organisation					
1.1.2 Operationalising the co-funding agreements					
1.1.3 Securing the office space and purchasing the equipment according to the procurement regulations					
1.1.4 Implementing the staff-hiring procedures and hiring new staff ¹²					

¹² Activities for other outputs will be completed following the validation workshop and potentially with the input from working groups at the workshop

4.2 Estimates of the Human Resources Needed

4.2.1 The Administrative and Technical Staff Needed

In the beginning, the Centre should start with a very small technical and administrative staff. It can later expand the staff size according to the funding mobilised and the programmes and projects developed ("Form follows function"). Flexible employment arrangements should be put in place where possible and necessary.

The proposed concept of having a virtual Centre or a rotating secretariat would further minimise these human-resources requirements for the administrative staff and require each TH to provide such services to the Centre while they host the secretariat. In this case, the roles defined below would more closely resemble the set of tasks to be covered by the staff at each TH that is serving as the secretariat. This set-up could be logistically complicated.

4.2.2 Staffing Chart for the First Operational Phase



Figure 11: First operational phase staffing chart

It is expected that most of the staff will have the nationality of one of the ECO-Region countries and will be recruited and employed according to the host country's organizational rules. It is envisaged that at least 30% of the technical and administrative staff will be female, especially among the technical staff, if possible. It is recommended that the Centre establish a special focal point for addressing gender issues and facilitating mainstreaming gender equality across the Centre's internal departments and technical programme portfolio.

As a key figure in the Centre, the Director's performance shall be directly reviewed by the Steering Committee. Successful fund-raising will be an important criterion used to judge the Centre's success. UNIDO's headquarters' staff are expected to provide part-time technical backstopping to facilitate knowledge transfer, where appropriate, from other regional sustainable-energy centres; UNIDO's staff will travel to the Centre's Secretariat, if necessary.

The Centre can hire external experts and consultants to assist with specific assignments on a short-term basis. Specialised services can be recruited according to the applicable rules and standards of the host organization or UNIDO's procurement rules. It is proposed that, for all projects for which funding has been secured, enough staff be hired to work on these projects, using the overhead costs of these projects. In addition to the Centre's own project staff, the development partners should be encouraged to provide technical assistants to work on projects they sponsor. The Director of the Centre is expected to be responsible for coordinating the activities of the project-related staff and technical experts so as to ensure synergy between the Centre's core activities and its projects and programmes.

4.3 Preliminary Budget Forecast

A preliminary budget forecast by outcome area is shown in Table 9 below. Potential expense items in the budget, including UNIDO's overhead on 1/5 of the total amount are shown in Table 10 below. The budget in this scenario is forecast to grow gradually, as more resources become available and the structure of the Centre is established. The outcome areas are expected to grow gradually over the first two years and reach the full target budget in the third and fourth years.

This budget has been estimated based an assumption of strong donor support and growth in programme funding in the first operational phase.

Table 9: Preliminary Budget Forecast by Outcome Area

	Y1	Y2	Y3	Y4	Total
Outcome 1: Enhanced regional institutional capacities through the creation of the effectively and efficiently managed and financially sustainable Centre	\$200,000	\$300,000	\$350,000	\$350,000	\$1,200,000
Outcome 2: Enabling policy, legal and incentive frameworks created and under implementation	\$100,000	\$200,000	\$400,000	\$500,000	\$1,200,000
Outcome 3: Strengthened capacities of local key institutions and stakeholder groups through the creation and implementation of effective sustainable energy qualification, innovation, certification and accreditation frameworks for sustainable energy	\$100,000	\$200,000	\$400,000	\$500,000	\$1,200,000
Outcome 4: Increased RE/EE business opportunities for local companies and industries through increased investments in sustainable energy infrastructure, and the manufacturing and service industries mobilised	\$100,000	\$200,000	\$400,000	\$500,000	\$1,200,000
Outcome 5: Enhanced awareness among key stakeholder groups of RE and EE opportunities by upscaling regional mechanisms for data and knowledge management and advocacy	\$100,000	\$200,000	\$400,000	\$500,000	\$1,200,000
Total	\$600,000	\$1,100,000	\$1,950,000	\$2,350,000	\$6,000,000

Table 10: Preliminary Budget Forecast for the First Operational Phase

Expense Item	Y1	Y2	Y3	Y4
Salaries of the International Advisors and Staff	\$138,000	\$253,000	\$448,500	\$540,500
Salaries of the National Advisors and Staff	\$36,000	\$66,000	\$117,000	\$141,000
Contracted Services	\$168,000	\$308,000	\$546,000	\$658,000
International Travel	\$18,000	\$33,000	\$58,500	\$70,500
Local Travel	\$24,000	\$44,000	\$78,000	\$94,000
Regional Meetings or Workshops	\$66,000	\$121,000	\$214,500	\$258,500
Miscellaneous Expenses	\$30,000	\$55,000	\$97,500	\$117,500
Equipment	\$90,000	\$165,000	\$292,500	\$352,500
Training or Professional Membership Fees	\$12,000	\$22,000	\$39,000	\$47,000
Subtotal	\$582,000	\$1,067,000	\$1,891,500	\$2,279,500
13% of Overhead (UNIDO) (for 1/5th of funding)	\$15,132	\$27,742	\$49,179	\$59,267
Total	\$597,132.00	\$ 1,094,742.00	\$1,940,679.00	\$2,338,767.00

4.4 Funding Mobilisation Strategy

There are several ways to raise funds to support the Centre, such as membership dues to be collected from the ECO countries, international calls for proposals, and opportunities offered by spontaneous developers and donors. These ways are discussed briefly below. Subsection 4.5 further down looks at how some development partners who may also contribute funding.

4.4.1 ECO Membership Contributions

According to the modalities for establishing ECO's regional centres, some financial contributions should be made by the host organisation and by all the ECO member countries. This portion of anticipated funding may not reach the level required to allow for pursuing all the activities foreseen and planned for the Centre.

UNIDO usually provides a small amount of funding to support such a centre in its first operational phase. At present, the following contributions are potentially foreseen for the first five-year period, with most funding occurring in the first three years:

- › EUR 1,5 million from ADA (under consideration)
- › EUR 300,000 (UNIDO cash/in-kind under consideration)
- › Host country (indicative 400.000 cash/in-kind)

To supplement the funding contributed by the ECO's member countries and by UNIDO, the ECO could consider offering sponsored training services to generate some revenue, as described below.

ECO-sponsored Training Services

Customised training provided by the Centre could be interesting and complementary to the current curricula offered at the universities in the region. Such training could also be sold to the beneficiaries and integrated into the financing strategy of the Centre. For the students, such customized training could also complement the degree courses offered by the universities. The Centre could, among other things, follow the model employed by the *Asian Preparedness Disaster Centre* (ADPC)¹³ based in Thailand. A small part (about 10%) of the ADPC's revenue comes from the fees paid by the participants of the regional workshops; the funding of these workshops is used only for implementing the annual regional flagship training programme on disaster management.

ECO-consultancy services

The Centre – having the necessary technical expert and staff pool – can “market” its expertise as services, i.e. offering consultancy services for a fee. A market assessment to understand the existing services offered in the region and how the Centre would complement and not compete with private sector offerings would be beneficial.

4.4.2 International Calls for Proposals

A variety of international calls for proposals have significant potential to overlap with the goals and projects of the Centre for at least some of the countries in the ECO region. Funding may have to be put together gradually in some cases, depending on the donor and their orientation. The following options are a sample and non-exhaustive listing of potentially relevant opportunities. In some cases, the set-up of the Centre may not allow it to directly apply for funding because calls are directed at national NGOs or similar types of organisation. In some cases, partnerships and detailed agreements with NFIs and THs may enable using these options. In other cases, re-registering as a legal entity in one or more country could open up the potential to apply to additional calls.

The Critical Ecosystem Partnership Fund¹⁴

The Critical Ecosystem Partnership Fund (CEPF) was created in 2000 to protect the richest and the most at-risk ecosystems in the world by distributing subsidies to NGOs and the private sector. It is an initiative jointly undertaken by the *Agence Française de Développement* (AFD), Conservation International, the European Union, the GEF, the Government of Japan, the John D. and Catherine T. MacArthur Foundation and the World Bank. The fund could be particularly relevant to the countries in Central Asia and the others in the ECO Region.

¹³ Econoler-Baastel, “D-1 Cartographie des meilleures pratiques internationales”, as part of the assignment for CTCN on establishing a centre of competence for climate change mitigation in Madagascar (4Climate), July 2017.

¹⁴ <https://www.thegef.org/topics/special-climate-change-fund-sccf>

CEPF had the following four essential strategic investment objectives for the period of 2014-2019:

- › To provide the local communities with the means to protect and manage the biodiversity in the priority regions;
- › To support the civil society in strengthening the integration of biodiversity protection into the political and economic decision-making processes;
- › To build the local and regional civil society's capacity through training, exchanges and regional cooperation actions;
- › To ensure strategic leadership and effective coordination in CEPF's investment using a regional team of implementation.

The eligibility criteria for receiving financing from CEPF include, among other things:

- › The application for a grant of less than USD 1 million;
- › The project is to be located at one of the hotspots of biodiversity recognized by CEPF;
- › The project is to be aligned with CEPF's strategic orientations.

CEPF launches open calls for proposals for specific hotspots mentioned in the call-for-proposal announcement to request regional agencies to make online submittal of project proposal documents and submittal of simplified models for projects that require small grants.

Green Climate Fund (GCF)¹⁵

The GCF is one of the financial mechanisms put in place under the UNFCCC. It intervenes as the operational entity for implementing the Paris Agreement on climate to raise and invest almost USD 100 billion each year by 2020. To finance the priority climate-change-mitigation projects and programmes of the countries, the GCF has two financing mechanisms, respectively for adaptation and mitigation. Project developers are required to demonstrate the impacts of their activities on the fight against climate change by identifying these activities' relation to one of the eight strategic impact areas defined by the GCF, as listed below.

¹⁵ www.greenclimate.fund

Mitigation	Adaptation
<ul style="list-style-type: none"> • Energy production and access • Transport • Forests and land use • Buildings, cities, industrial facilities and equipment 	<ul style="list-style-type: none"> • Health, food and water security • People's and communities' means of subsistence • The environment of the buildings and the infrastructure • Ecosystems and ecosystem services

Figure 12: Strategic Topics of the GCF

The projects are classified into four categories according to their financial value, as illustrated in the following figure.

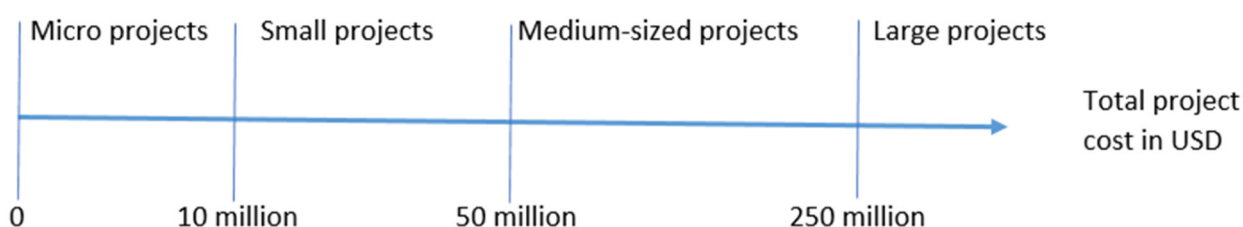


Figure 13: Classification of Project Sizes by the GCF

The GCF uses several financial instruments to finance projects, including grants, loans, guarantees, and equity participation. Financing a project involves the participation of several entities at the national level and within the GCF in a process that may last up to 13 months, depending on the size and complexity of a project. However, it should be mentioned that there is a simplified process for approving micro projects worth up to USD 10 million. Before seeking financing from the GCF, one necessary step is to be completed, namely the accreditation of the Centre or its structure by the Fund.

The Initiative of Building the Capacity for Transparency¹⁶

The Capacity Building Initiative for Transparency (CBIT) is a trust fund worth USD 55 million piloted by the GEF and created to support the implementation of Paragraph 13 of Article 4 of the Paris Agreement on Climate Change regarding the transparency of national initiatives to fight against climate change.¹⁷ The CBIT generally focuses on financing those actions that will allow for monitoring in a fully transparent manner the implementation of adaptation and mitigation actions, as well as the support received by

¹⁶ Link to the website: <https://www.thegef.org/topics/capacity-building-initiative-transparency-cbit>

¹⁷ Paragraph 13 of Article 4 of the Paris Agreement: "Parties shall account for their nationally determined contributions. In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement." (Source: https://unfccc.int/sites/default/files/english_paris_agreement.pdf, last consulted on February 21, 2020.

developing countries within the framework of the nationally determined contributions (NDC) foreseen. Three major objectives are being pursued through the implementation of the CBIT: (1) to build national institutions' capacity for carrying out activities linked to transparency aligned with the national priorities; (2) to provide the necessary tools, training and assistance to conform with the provisions of Paragraph 13 of Article 4 of the Paris Agreement; and (3) help improve transparency.

The CBIT finances those projects that facilitate coordination among national actors, knowledge-sharing and the activities aimed at building capacity among national actors in relation to transparency of the initiatives related to climate-change mitigation to achieve greater transparency of the actions. However, the selection process must directly come from the countries (e.g., governmental institutions) and should be carried out by the implementing agencies, which are currently Conservation International, UN Environment, the United Nations Food and Agriculture Organization (FAO) and the UNDP. Because the CBIT's priority field of action is firmly focused on capacity-building, the Centre should consider this initiative as a source for long-term financing. Close collaboration with the ministries would be necessary for developing a project.

Green for Growth Fund (GGF)

The Green for Growth Fund¹⁸ is engaged in provision of credit lines to financial institutions in Southeast Europe and in the Middle East and North Africa (MENA) for on-lending to private households, homeowners associations, businesses, municipalities and public sector entities to finance energy efficiency measures and renewable energy projects. This is the financing framework for the energy efficiency measures and renewable energy sources. GGF either provides loans through the local financing institutions in the above-mentioned regions or directly to renewable energy companies and projects, energy service companies, small scale suppliers of energy efficiency and renewable energy services and equipment suppliers. The GGF Technical Assistance Facility (TAF) supports the Fund's activity on promotion of energy efficiency (EE) and renewable energy (RE) by providing targeted technical assistance to financial institutions and project developers in conjunction with GGF funding. The investments supported with technical assistance that ensure the implementation of improved energy efficiency measures and renewable energy projects produces synergy and long-lasting effect on the investment.

The following areas are under the scope of technical assistance for the partner institutions complemented with the investment:

- › Capacity building and training for GGF partners, who are financial and non-financial institutions and municipalities, and the fund's ultimate target group, small to large enterprises, corporates, and households.
- › Validation and monitoring of energy savings and CO₂ emission reductions
- › Strategic advice to the Fund's managers based on research and analysis

¹⁸ See <http://www.ggf.lu>

- › Increasing the awareness and acceptance of EE/RE solutions in the financial sector and among the public.

Along with provision of its financing mechanisms for EE and RE projects for the local organizations, the Fund supports and promotes operation of local companies providing energy audit services through their engagement into the process. The mechanisms provided by the GGF in the partner countries could have served for growing local energy audit companies. Turkey and Azerbaijan are among the partner countries of GGF.

4.4.3 Spontaneous Financing Initiatives

One of the most effective ways to obtain financing is to inform potential financial institutions or other relevant actors about the expected results of an initiative and its benefits for the local populations.

Developing a Network of Partners

For a new organisation, partnerships are an undeniable asset for accessing financing through calls for applications and spontaneous applications. By associating with organisations having experience and know-how about climate-change-mitigation project development and implementation, the Centre will have a wider range of opportunities and grow its credibility quickly.

It is necessary to establish undeniable credibility and become a reliable source regarding renewable energy and energy efficiency in the region and internationally. To this end, starting from the early stage of the Centre's development, it is necessary to partner up with development banks, universities, governments and partners who already have a good reputation in the field. Additionally, several sources of financing from bilateral organisations and private donors are accessible only by forming a partnership with the organisations registered in the countries where these donors operate. Therefore, starting from a very early stage of its development, the Centre should carry out the following tasks:

- 1 Establishing an institutional and organisational structure that enables partnering up with other similar centres and organisations at the national level to facilitate the search for financing.
- 2 Mapping out those organisations similar to the Centre in the region and in other countries.
- 3 Establishing contact with these organisations to inform them about the Centre's mission and action plan, determining the potential complementarities and developing a shared development strategy or creating agreements for project partnerships.
- 4 Maintaining contact (at least on a monthly basis) with these organisations and sharing potential opportunities

Subsection 4.5 below identifies potential development partners. Several of them could be approached for spontaneous support of the Centre, particularly in those cases where the Centre can support these partners' ongoing activities in the ECO member countries.

4.5 Identifying Development Partners

There are two kinds of potential development partners: those that have concluded formal agreements with the ECO and those that are active in individual countries in the region without having a formal tie to the ECO.

4.5.1 The ECO's Existing Partners

The ECO has concluded MOU with several UN agencies and other partners¹⁹. The MOU signed have specified arrangements for bilateral cooperation for the interests of the Member States covering such areas as technical and financial assistance, capacity-building and implementation of programmes and projects. These partners are likely to be strong partners for the Centre and could be considered as a priority to reach out to identify their interest in supporting the Centre in its initial phases.

The MOU that are directly concerned with energy or climate could overlap with the goals of the Centre, as discussed below.

The ECO and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

Both organisations agree to cooperate with each other, to the extent possible, by engaging in active collaboration in the following specific areas of mutual interest:

- › studies on energy planning, energy pricing, energy efficiency and conservation, including promotion of sub-regional cooperation in energy development

The ECO and the UNDP

Both organisations agree to pursue the following aims and purposes:

- › Based on the priorities established by the Member States, developing, undertaking and publishing studies in fields such as the environment, energy, employment, poverty alleviation, education, and science and technology, and exchanging reports, publications and other relevant documentation published by the respective organisations in fields of common interest.

¹⁹ For a complete list see http://www.eco.int/general_content/86475-Memoranda-of-Understanding-MoU.html?t=General-content

The ECO and the United Nations Economic Commission for Europe (UNECE)

The cooperation may extend to the following areas and activities of mutual interest:

- › Sustainable energy development: In case it is so decided by the governing bodies of both organisations, experts from the ECO and the UNECE may jointly work in order to promote energy efficiency measures in the region to reduce energy intensity of their national economies, increase effectiveness and quality and the development of new kinds of energy resources. Experts from the ECO and the UNECE may also cooperate on the issues of data collection, creation of databases, analysis and assessment of the global energy market and the issues of energy pricing, the technologies of gas and oil storage and security of energy transportation and regulations and norms for the deregulation of energy markets.

The ECO and the United Nations Environment Programme (UNEP)

Both organisations agree on the following as major areas of cooperation:

- › Enhancing the environmentally sound and renewable energy services and resources: The parties will explore the possibility of undertaking the following energy-related activities in line with energy issues as indicated in Johannesburg Plan of Action:
 - Launch of a regional renewable and environmentally compatible energy resource assessment, building on existing work in this area, including the GEF-supported Solar and Wind Energy Resource Assessment (SWERA) project.
 - Support for renewable and environmentally compatible energy policy development, drawing on experience from other countries and focusing on providing practical measures readily applicable in the ECO Region.
- › Capacity-building services in areas of:
 - Environmental law: The parties will explore specific capacity-building activities, which could entail:
 - Strengthening the legal and institutional frameworks for environmental management in the context of sustainable development.
 - Capacity-building of legal stakeholders to empower them to participate effectively in the development, implementation and enforcement of national environmental legislation, including legislation for the implementation of multilateral environmental agreements at the national level.
 - Developing global, inter-regional, regional and bilateral environmental agreements.
 - Environmental education: The parties will explore possibilities for joint development and implementation of awareness-raising and environmental education and training programmes.

The ECO and the Islamic Development Bank (IDB)

The MOU that the ECO signed with the IDB highlights the ECO and the IDB's intention to cooperate in undertaking the following activities:

- › Providing technical assistance for the preparation of feasibility studies for the ECO's projects in important areas of development, such as transport, communications, infrastructure, trade, energy resources, industrial promotion, agricultural production, environment, and human resources development.
- › Providing scholarships from the IDB's scholarship programme for students in educational institutions in the ECO's founding countries which are also the members of the IDB.
- › Identifying projects that qualify for financing from the IDB and providing assistance to the governments in preparing project documents.

The ECO and the Colombo Plan

The Colombo Plan is a regional organisation that embodies the concept of collective intergovernmental effort to strengthen economic and social development of the member countries in the Asia-Pacific region. The primary focus of all Colombo Plan activities is on human resources development. Specific areas of potential cooperation agreed upon include:

- › Exchanging relevant experience through ECDC-TCDC (economic and technical cooperation among developing countries);
- › Enhancing their national capacities in identified areas of common interest;
- › Developing and delivering, as appropriate, joint training programmes and workshops on mutually identified areas of priority concern.

The ECO and the Turkic Council

The Turkic Council (officially the Cooperation Council of Turkic-Speaking States) is an international intergovernmental organisation comprising some of the Turkic-speaking countries. Its overarching aim is to promote comprehensive cooperation among Turkic states. The MOU signed with the ECO highlights the following activities:

- › Building partnerships with third parties, including international financial institutions, for specific projects of a regional scale;
- › Experience-sharing through participation of experts of the member states of the parties in existing projects or programmes of the ECO and the Turkic Council;
- › Developing joint projects or programmes in the following priority areas:
 - Economic integration and trade;
 - Transport and customs cooperation;
 - Sustainable development;

- The environment;
- Tourism;
- Energy security.

4.5.2 Organisations Active in the Region

Several international organisations, banks and donors are active in the region. Many of their projects have already been highlighted in the BNA and in Table 6 and Table 7. Many of these organisations have established in-country or project-specific offices in the ECO member countries but do not have regional presence or formal arrangements with the ECO.

The European Bank for Reconstruction and Development (EBRD)

The EBRD mandates working only in those countries that are “committed to democratic principles” and it promotes “environmentally sound and sustainable development” in lending. In 2015, the EBRD invested a record amount in the Central Asian region with specific support for renewable energy projects in Kazakhstan, including for the construction of a new solar power plant in Zhangiz-tobe in the east of the country.²⁰

The EBRD is active in the following ECO countries: Azerbaijan, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan. The Centre could, for example, approach the EBRD for partnerships to seek a regional application of some of the training and technical skills from existing EBRD projects, such as the Pilot Programme for Climate Resilience in Tajikistan. It could also seek to apply some of the best practices from ongoing EBRD projects in the region, such as the SEFFs in Turkey and the Kyrgyz Republic, to other financing projects in other ECO countries.

The Asian Development Bank (ADB)

The ADB defines itself as a social development organisation dedicated to reducing poverty in Asia and the Pacific through inclusive economic growth, environmentally sustainable growth, and regional integration. This is carried out through investments (such as loans and grants) and information-sharing in infrastructure, healthcare services, financial and public administration systems, helping nations prepare for the impacts of climate change or better manage their natural resources, as well as other areas.

²⁰ https://www.inform.kz/en/ebrd-and-green-climate-fund-provide-16-7m-to-finance-kazakh-solar-power-plant_a3521132

The ECO members that have joined the ADB include: Afghanistan, Pakistan, Kazakhstan, the Kyrgyz Republic, Uzbekistan, Turkey, Tajikistan, Azerbaijan and Turkmenistan. The ADB is involved in several large-scale RE projects in ECO member countries as well as support for technical and vocational training. Current ADB activities include large-scale single-country RE investments and sub-regional power-sector master-planning support. The Centre could look for training opportunities that overlap with the ADB's activities in the larger ECO Region, and seek regional application of training that accompanies ADB projects. The Centre could also approach the ADB for longer-term partnerships or the commissioning of specific studies to contribute to advancing a regional energy agenda.

The World Bank Group

The World Bank Group (WBG) is comprised of five international organisations that make leveraged loans to developing countries. It is the largest and the best known development bank in the world. The bank's stated mission is to achieve the twin goals of ending extreme poverty and building shared prosperity.

All the ECO countries are members of at least four of the WBG organisations. WBG is active in several single-country projects involving financing schemes and policy development. The Centre could seek to be commissioned to perform specific studies for WBG in support of WBG's ongoing projects in the region, like other centres, such as the gap analysis performed by RECREEE.²¹ The Centre could also approach the WBG for a long-term partnership to achieve WBG's regional ambitions.

Organization for Security and Co-operation in Europe (OSCE)

The Organization for Security and Co-operation in Europe (OSCE) is the world's largest security-oriented intergovernmental organisation. The ECO members that have joined the OSCE include: Azerbaijan, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkey, Turkmenistan and Uzbekistan. Afghanistan is a co-operation partner. The organisation has three dimensions: politico-military, economic and environmental, and the human dimension. Under the second dimension, the OSCE's economic activities include activities related to migration management, transport and energy security. Most activities are implemented in cooperation with partner organisations, presenting opportunities for the Centre.

The OSCE has developed a range of environmental-protection activities aimed at addressing ecological threats to security of its participating member countries. The activities include projects related to hazardous waste and water management, access to information and energy security and supply. The OSCE has prepared detailed scenario reports detailing potential impacts of climate change for several countries in the ECO Region. Replicating these projects throughout the region offers opportunities for the Centre.

²¹ See <https://www.rcreee.org/projects/mena---delivery-mechanisms-and-institutions-realize-energy-efficiency-potential>

The OSCE Academy in Bishkek is a regional centre of postgraduate education and a forum for regional security dialogue and research. The academy offers two graduate programmes and is a member of the OSCE Network of Think Tanks and Academic Institutions. Because the ECO Region plays a significant role in ensuring energy security in Europe, several of the ECO's energy-related activities could overlap with some of the OSCE's projects and offer opportunities for collaboration with the Centre.

USAID

USAID is one of the largest official aid agencies in the world, and accounts for more than half of all U.S. foreign assistance. Some ECO countries would be excluded from receiving USAID assistance, but there could be potential opportunities for collaboration on training and skills development activities, particularly for specific countries where USAID is very active, including Pakistan and Afghanistan. In addition to those two ECO countries, USAID is active in Azerbaijan, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan. The Centre could approach USAID in one of its in-country offices to discuss regional replication of its existing training programmes, or for general support for the Centre's activities in one or more countries where its missions are already in place.

GIZ

Together with its main commissioning partner, the German Federal Ministry for Economic Cooperation and Development (BMZ), GIZ is active in Afghanistan, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Uzbekistan, Turkey and Azerbaijan. Many of their projects are country-specific, and may be replicated across the ECO Region, offering opportunities for the Centre. Also, the Centre could propose mitigation of specific regional knowledge gaps that overlap with GIZ's activities in the region for funding requests.

European Union (EU)

The EU shares interests with both the ECO and the Centre and is active and maintains a delegation in all the countries in the region. The EU's relations with individual countries are generally improving and the EU has active projects ongoing in many countries, including the Partnership and Cooperation Agreements (PCA) with several countries. Some ECO countries fall within specific programmes, such as the European Neighbourhood Policy (ENP) that supports better economic integration of specific countries, including Azerbaijan. Increasing regional programmes with support of the Centre could be attractive to the EU and support it in meeting several of the country-level cooperation goals. The EU is already involved in regional energy projects involving many but not all ECO countries, such as the SEMISE project and the Energy Conservation Initiative in the Building Sector in Eastern Europe and Central Asia (ESIB). Both could offer opportunities of implementing best practices that could be applied throughout the region.

**Department for International Development (DFID)**

The DFID is the main development arm of the UK government. It is active in several ECO countries, including Tajikistan, Afghanistan, the Kyrgyz Republic, and Pakistan. Some of its projects involve several countries and may be replicated throughout the region, providing best practices and lessons learned.

APPENDIX I

LIST OF LOCAL CONSULTANTS

Consultant	Coverage
Artur Khudonazarov	Regional Coordinator
Mamadsho Ilolov Sabur Rasulov	Local – Tajikistan
Darush Ahmad Ahmadi Sabur Rasulov	Local – Afghanistan
Matanat Pashayeva	Local – Azerbaijan
Behzad Aghababazadeh	Local - Iran
Mrs Damira Mussina	Local – Kazakhstan
Isaev Ruslan	Local - Kyrgyzstan
Ali Habib	Local – Pakistan
Kubilay Kavak, Melis Bitlis, Damla Ozcelik	Local – Turkey
Muratov Khakim	Local - Uzbekistan
Serdar Mamedniyazov	Local – Turkmenistan

APPENDIX II

DETAILS ABOUT THE ECO'S ORGANISATIONAL STRUCTURE

DESCRIPTION OF ORGANISATIONAL STRUCTURE

- › **Summit:** The Heads of State/Government of the Member States meet biennially or more often if considered necessary by the Member States. The summit meetings review the objective conditions and progress in implementation of the ECO programmes and projects in the highest-level forum possible exchanging views on regional and global issues of common interest to the ECO region.
- › **Council of Ministers (COM):** The COM is the highest policy and decision-making body of the ECO. It comprises the Ministers of Foreign Affairs of the Member States who meet in regular, informal and special sessions. It is responsible for the following duties: making decisions on and approving policies, strategies, work programmes; appointing senior management (the Secretary General and his deputies as well as Directors); establishing subsidiary or ad-hoc committees; approving the annual budgets and audit reports; setting the assessed budgetary contributions of the Member States; approving the fiscal and administrative rules and regulations and organisational charts, etc.
- › **Council of Permanent Representatives (CPR):** CPR is one of the ECO's standing intergovernmental bodies responsible, on behalf and in the name of the COM, for moving forward the policies charted by the Council of Ministers. It also makes necessary preparations for the decisions to be made by the COM. The permanent representatives or ambassadors from the Member States accredited by the ECO are members of the CPR, which meets as often as necessary under the chairpersonship of the representative of the Member State holding the chairpersonship of the COM.
- › **Regional Planning Council (RPC):** RPC is the ECO's main technical planning body and is comprised of the heads of the national planning bodies of the Member States as well as officials and experts from the national sectoral ministries and agencies. It is responsible for preparing the programmes of action for achieving the objectives of the ECO along with stocktaking previous programmes. It may also propose to the COM about the need to establish regional institutions and ad-hoc committees in priority areas of cooperation.
- › **Sectoral ministerial meetings and other meetings:** The COM may, if necessary, propose holding meetings attended by other ministers to develop plans and projects in their respective fields through sectoral or joint ministerial meetings. There are also other lower levels of intergovernmental meetings attended by senior officials and experts of the Member States to address specific mandates and tasks assigned to them. These include, among others, high-level expert groups, high-level working groups, committees, working groups, task groups, workshops, etc.



ECONOLER