Project Background

In developing countries, particularly in the least developed countries (LDCs) and small island developing states (SIDS), the uptake of solar energy products and service markets face manifold supply-side and demand-side barriers related to quality infrastructure, qualification and certification, local entrepreneurship, and innovation along with other challenges, including conducive policies and access to low-cost finance.

Recognising these challenges, the International Solar Alliance (ISA) and the United Nations Industrial Development Organization (UNIDO), with financial support from the French Government, have entered into a partnership with the overall goal of enhancing institutional, technical and networking capacity of Member Countries by establishing a network of Solar Technology Application Resource Centres (STAR C).

Under this partnership, UNIDO and ISA, with the financial support of Euro 1 million from the French Government, have embarked on the first operational phase of the STAR C project for thirty months beginning July 2022. This project aims to remove critical barriers concerning (i) lack of quality and certification frameworks for solar energy products and services; (ii) insufficient local capacities for market uptake; and (iii) lack of south-south and triangular solar partnerships and networks. To have accelerated impact, a combined regional-national approach is being applied by creating synergies to the Global Network of Regional Sustainable Energy Centres (GN-SEC), coordinated by UNIDO and regional economic communities.

Project Objective and Expected Outcomes

Project Objective: the overall objective of the project is to enhance the institutional, technical and networking capacity of member countries **(Bhutan, Senegal and Papua New Guinea)** for accelerated deployment of certified solar energy, thereby ensuring energy security.

Project Outcomes: The project is expected to produce four key outcomes, mainstreaming gender and youth equality measures:

- **Outcome 1: Improved quality and certification frameworks for solar energy products and services**
  The first outcome aims at setting the foundations for regional and national quality and certification frameworks for solar photovoltaics (PV) and solar thermal heating and cooling (SHC) products and services at the regional level.

- **Outcome 2: Enhanced capacities of institutions to offer certified quality solar curricula and training**
  This outcome aims to develop and disseminate comprehensive curricula on solar technologies and capacitate various local and regional institutions (e.g. universities and vocational training centres) to adapt and implement the curricula for sustainability.

- **Outcome 3: Increased impact of solar networks and knowledge management systems**

This outcome aims to build Member Countries' linkages with global renewable energy accelerator platforms. Moreover, it will strengthen existing regional and country-level partnerships for knowledge transfer and exchange of experiences. National ecosystems benefit from regional coordination and integration.

- **Outcome 4: Effective and sustained STAR-C management and governance structure**
  This outcome aims at establishing an effective implementation and governance structure for STAR C. It will develop a business and financing model to allow STAR C to operate beyond the project duration and enable partners to join this project and contribute to it.

Implementation Strategy

The project will be implemented in close partnership with the Global Network of Regional Sustainable Energy Centers (GN-SEC) and ISA Member Countries - **Bhutan, Senegal and Papua New Guinea** in Africa and the Pacific Island region. The project will focus on countries covered by the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), the East African Centre for Renewable Energy and Energy Efficiency (EACREEE) and the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE). UNIDO will provide technical assistance (e.g. qualification and certification) and facilitate partnerships and south-south and triangular solar cooperation between the various regions and centres. The project will create and work through local networks comprising universities, research and vocational centres, certification bodies, industry associations and public entities, acting as STAR Centres and advocates globally. These will be linked to international solar qualification and certification networks, institutions and intelligence (e.g. IEA, IRENA, REN-21, REEEP).

Governance and Sustainability

The project will be governed by a Supervisory Committee (SC) constituted by members from ISA, French Government and UNIDO. In close coordination with the GN-SEC centres, the project Project Management Unit (PMU) will establish a strong network of ISA National Focal Institutions (NFIs) and follow up the implementation at a technical level. More solar stakeholders will be welcomed to use the STAR-C resources and networks for efficient and effective delivery of solar energy projects and to contribute to this project. To increase the initiative's impact, further funding support will be mobilised during the implementation of the project.