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GDC
GLOBAL DEVELOPMENT CENTRE

Tapping Solar Energy

Sharing India's Experience and Forging Partnership with Asia, Pacific Island Countries

17 June 2021, Thursday
10:00 am to 12:00 pm IST

CONCEPT NOTE

Background

- In the recent years, the ecosystem of the Pacific Island Countries (PICs) is impacted by pollution, overfishing, and unsustainable development and excessive dependence on fossil fuels. At the same time, the PICs are facing the challenges of severe climate changes resulting in rise of sea-level, changes in rainfall patterns and temperature. Unabated, the issue needs immediate attention to avoid future damages.
- In addition to enacting policies, there is a call for appropriate actions to address the issues pertaining to climate change with a scope to stimulate renewable energy (RE) deployment across the PICs. Furthermore, the islands are endowed with natural resources like sun and wind. With a large potential to mitigate climate change and health, RE can provide wider benefits and if implemented properly can bring prosperity and contribute to energy security and sustainable development to their people.
- The concept of “climate change and renewable energy” merits examination through the lens of national policies of PICs and the role of communities, cities, and regions. Hence, further policies would be needed to attract adequate investments in technologies and infrastructure. This requires

detailed mapping at the country level to develop different pathways and solutions tailored to local conditions, resource endowments and priorities. Political support, broadly recognised as key to facilitating the implementation of the agenda for transforming energy systems, will be required.

- As an alternative technology of choice, RE has established itself as the new power generation capacity and India's recent status of lowest-cost producer of solar power reflects an on-going shift towards renewable power as the driver of global energy transformation. The country in the recent years has developed a sustainable path for its energy supply. Solar energy technology is very important tool which lowers worldwide carbon emissions. The cost of solar energy technologies has rapidly declined in the recent past years, and it is showing potential for continuous declines in the near future. It is envisaged that these efforts would contribute to local development priorities and create co-benefits for multiple sustainable development goals (SDGs).
- India has adopted alternate forms of energy to manage balance between economic growth and sustainable environment. The Government of India has taken necessary steps to ensure consistent growth in the segment. It has enabled the solar industry, reach economies of scale in a short span of time, making India the cheapest producer of solar power by deploying effective public private partnership (PPP) model.
- To provide impetus to the initiatives, the Government of India has formed specialised bodies like the Ministry of New and Renewable Energy (MNRE), the Solar Energy Corporation of India (SECI) and subsequently International Solar Alliance (ISA). These institutions have played a pivotal role in helping India become one of the fastest adopters of solar energy and accelerated growth of solar industry.
- The role of distributed energy resources is increasing as a solution for sourcing buildings, lighting communities in cities and rural areas, as well powering companies.

Key Issues/ Challenges – Pacific Island Countries

- Adoption and enforcement of suitable policies on RE and energy efficiency.
- Maintaining uniformity in tariff and cross sector policy.
- Demand for energy and associated services, to meet social and economic development and improve human welfare and health.
- Lack of regulatory processes for identification and prioritization of actual renewable energy projects, policy frameworks.
- Lack of sustainable mini-grid models for financing, ownership, operation and maintenance capacity.
- Absence of private sector engagement.
- The capacity to operate and maintain RE systems is weak, particularly for off-grid installations on remote islands, difficulties in grid integration.
- Lack of private sector investment.
- Stretched and isolated supply chains for household systems and transportation (solar lanterns, solar household systems, pico-hydro, solar powered vehicles etc.)
- Unlike energy supply, there are very few people with experience and skills in energy auditing, or specifying, implementing, and guaranteeing EE improvements.

Prospective Policy Recommendations and Scope of Partnership

The webinar intends to arrive at solutions with the respect to the key questions related to addressing the climate change and issues related to RE:

- To what extent the current share of fossil fuels and diesel is visualized to be offset by solar based power (solar microgrids, etc.)?
- How do the partner countries keep their power generating and transmission structures resilient to natural disasters and rising sea levels?
- Scope of India's support and partnerships in solar energy demand assessment plan development to offset fossil fuel dependence to some percentage say by

2035, creation of governmental enterprise - Clean Energy Division and capacity building of its personnel and in accessing global finance to build solar power for say aggregated pool of interested PIC.

- Upskilling of local human resources in developing climate-smart innovative models. Upscaling implementation and enforcement of such initiatives at national level and need of supporting policies for sustainable financing mechanisms.
- Scope of partnering with private players in producing clean energy.
- Role of South-South Cooperation and Triangular Cooperation in mitigating the challenges of PICs.
- Peer learning within PICs and co-creating solutions for meeting the energy demands.
- Experience sharing by PICs with India to prevent future RE challenges in the islands of Andaman & Nicobar and Lakshadweep and make it resilient towards green energy.
- Conducting joint programmes on climate change adaptation and RE activities, and act as an agency of its implementation in PICs.