

Project Objectives:

Climate is an existential issue for many Indo-Pacific countries. Programs with this thematic focus will examine transparency and resiliency of supply chains necessary for clean energy infrastructure, and best practices for structuring, procurement, and execution of clean energy infrastructure projects. Meetings and program activities will showcase how developing and innovating clean energy technologies drives economic prosperity, energy matrix modernization, and environmental sustainability. Discussions will focus on renewable energy diversification, which supports energy independence, thus increasing geopolitical stability. Participants will explore U.S. policies; public-private partnership programs at the federal, state, and city levels; incubators and innovation hubs that support renewable energy and grid infrastructure sectors; cybersecurity strategies and approaches to safeguard critical infrastructure; and how energy innovation can strengthen local and regional economies.

This initiative should focus on sustainable infrastructure training and projects that do one or more of the following: advance gender equality and equity; raise labor and environmental standards; and promote transparency, governance, and anticorruption measures.

Participant Backgrounds:

The nine participants in this cohort represent sectors including government (5), business (1), and government-owned enterprises (3). They are engaged in fields including land transport systems, cyber security, solar power, policy design, power grids, legal and regulatory practices, and sustainable energy development. The participants in this cohort are from Fiji, India, Indonesia, Maldives, Nepal, the Philippines, and Vietnam.

Country and Regional Backgrounds:

As focus areas of the Quad Infrastructure Working Group, clean energy and ports are crucial components of an Indo-Pacific Strategy that prioritizes environmental sustainability, reliable supply chains, and free and open trade. The four countries that comprise the Quad – Australia, India, Japan, and the United States - have collectively provided more than \$48 billion in official finance for infrastructure in the Indo-Pacific since 2015. This investment requires a cadre of professionals and informed policymakers with the skills and knowledge to implement and support modern, advanced, and resilient ports that utilize clean energy technologies.

With dynamic economies and large and rapidly growing populations, South Asian countries face acute challenges related to energy production and maritime port modernization. These countries are also among the most susceptible to the effects of climate change.

Situated strategically in the South Pacific Ocean, **Fiji** is highly concerned about climate change and environmental sustainability. Policymakers in Suva have been successful in raising their profile on the global stage, but sometimes worry that they do not have the tools to fully take advantage of potential economic opportunities. This program would provide stakeholders with an opportunity deepen their knowledge of complex policymaking and processes with like-

mindful countries. Fijian participants would also create a network to which they could turn as it makes choices on clean energy and ports.

India set an ambitious goal of installing 500 GW of non-fossil fuel energy by 2030 and is proactive in seeking to deploy renewable energy initiatives to meet that target. The country's transition plan includes a strong emphasis on solar and wind power, in addition to energy storage and hydrogen, and encompasses advancements in technology, innovative financing models, and international collaborations to tap into its abundant renewable resources. The Integrated Country Strategy for India emphasizes a shared and sustainable economic prosperity for the United States and India by promoting trade and economic growth that is equitable; human development that is inclusive; investment and economic reforms that encourage innovation and provide a fair and transparent framework. The U.S. is focused on strategic partnership in which the U.S. and India work together through regional groupings to promote stability in South Asia; collaborate in new domains, including cyber space; deepen our economic and technology cooperation; and contribute to a free and open Indo-Pacific.

Indonesia is the world's eighth-largest emitter of greenhouse gases and a priority country in the global push to reduce emissions. It intends to reach carbon net zero by 2060 or earlier. Indonesia's coastal ecosystems represent around 17 percent of the world's blue carbon reservoir and are home to the world's largest mangrove carbon stocks. At the G20 Leaders' Summit in 2022, President Biden and President Joko "Jokowi" Widodo announced a \$20 billion Indonesia Just Energy Transition Partnership (JETP) and a \$649 million MCC Compact. The JETP is a long-term partnership to accelerate Indonesia's power sector transition away from fossil fuels to clean sustainable energy sources. President Widodo is also focused on developing Indonesia's infrastructure to boost foreign investment and create jobs.

Climate change is an existential threat to **Maldives** with its 530,000 inhabitants living on 200 inhabited islands - most no more than two meters above sea level. Maldives has gained international attention as an advocate for ambitious emissions cuts and climate finance reform. Maldives currently relies on standalone diesel generators on each island for power generation and a significant portion of its budget goes to diesel fuel. The Solih administration has increased investment in renewable energy particularly in solar, and the country plans to develop the world's largest floating solar array (10 MW) by 2023. While the market is small, U.S. investment in microgrids and low carbon technologies would be welcome and could serve as a test-case for other Indo-Pacific partners.

Nepal is highly vulnerable to climate change and has already experienced changes in temperature and precipitation at a faster rate than the global average. In Nepal, about half of greenhouse gas (GHG) emissions come from the agriculture sector, followed by energy, land-use change and forestry, industrial processes, and waste. Overall, Nepal is responsible for less than one percent of total global GHG emissions. Nepal has extensive hydropower capacity and nearly 80 percent of Nepal's energy resources come from renewable sources. The \$500 million

Millennium Challenge Corporation (MCC) Compact aims to enhance hydropower production by building a cross-border transmission line between Nepal and India to facilitate Nepal's export of clean hydropower to India and to the broader region. With fuel embargos and load shedding not so distant memories, Nepal is now preparing to enter an entirely new energy era, where there is enough clean energy for Nepal's homes and industries and even a surplus supply of power that can be sold throughout the region. In little more than a half-decade, better operating practices and increased investment in the generation sub-sector have helped Nepal Electricity Authority transform itself from a sub-par service provider to a financially stable utility. Many challenges remain, including increasing access to power, raising the quality of all types of electricity services, improving the environment by substituting clean electricity for fossil fuel-based energy, and ensuring better access to services.

The Philippines is highly vulnerable to the effects of climate change, suffering increased storm frequency and intensity. It faces a looming energy crisis as major gas field Malampaya, which supplies 30 percent of energy generation for main island Luzon, is set to be depleted by 2027, with no immediate indigenous energy generation source available to replace it. As global energy prices rise, the Philippines will need to increase its domestic clean energy infrastructure or face higher imported energy prices and more blackouts and brownouts. The Government of the Philippines introduced two long-term targets in 2021: increasing the share of renewable energy to 35% of the power generation mix by 2030 and 50% by 2050 and reducing greenhouse gas emissions 75 percent by 2030. The Philippines has tremendous renewable energy potential, particularly for offshore wind, but needs to accelerate the development of grid transmission and policies to facilitate renewable projects.

Vietnam is a burgeoning global trade player but also faces significant threats from rising sea levels and other climate effects that threaten its population and economic growth potential. The country has prioritized climate in its energy strategy, seeking to become a Net Zero carbon emissions nation by 2050. It needs considerable help, however, on development of his clean energy sources to meet this goal, including battery storage, transmission, and creating the regulatory and investment environment necessary to stimulate growth in this sector.