Institute of Chinese Studies

# WEDNESDAY SEMINAR

*China's Renewable Energy Ace*

# EXECUTIVE SUMMARY

Speaker:

**Y. Nithiyanandam**

24 September 2025

## EXECUTIVE SUMMARY

**Speaker:** **Dr. Y. Nithiyanandam**, Professor and Head, Geospatial Research Programme, The Takshashila Institution, Bengaluru.

**Chair:** **Dr. Atul Bhardwaj**, Visiting Research Fellow, School of Policy and Global Affairs, City St. George's, University of London; and, Adjunct Fellow, Institute of Chinese Studies, New Delhi.

**Venue:** Zoom Webinar

- The seminar explored China's renewable energy profile, especially in the Tibet Autonomous Region (TAR). The speaker examined the profile of different forms of renewable energy in terms of availability, affordability, and potential. The seminar also covered China's future ambitions in the area of renewable resources and their implications for India.

- Dr. Nithiyanandam explored the three major renewable energy resource profiles in the TAR. He argued that the renewable energy potential of the TAR is much higher than what China is tapping at present.

- The speaker made interesting observations on the renewable energy extraction facilities in the TAR. He noted that the region receives solar radiation ranging between 5,852–8,400 MJ/m², with the western TAR receiving a significant amount of said radiation. These locations often coincide with military sites. Additionally, the most suitable location for a hydropower dam on the Yarlung Tsangpo is near the Indian border, at the point where the river flows into India.

- The speaker explained that although China initially depended on European support to adopt solar energy technology, the harsh conditions in the TAR necessitated localised innovations. Consequently, China has achieved significant progress in renewable energy technology, underscoring its commitment to carbon neutrality.

- Dr. Nithiyanandam concluded that such dam projects are a major concern for India, as the power generated could potentially be used for strengthening border installations

on the Chinese side. These projects also have adverse effects on the ecology and environment of the TAR. Moreover, there also exist trans-boundary challenges due to environmental change, human settlement, and militarisation.