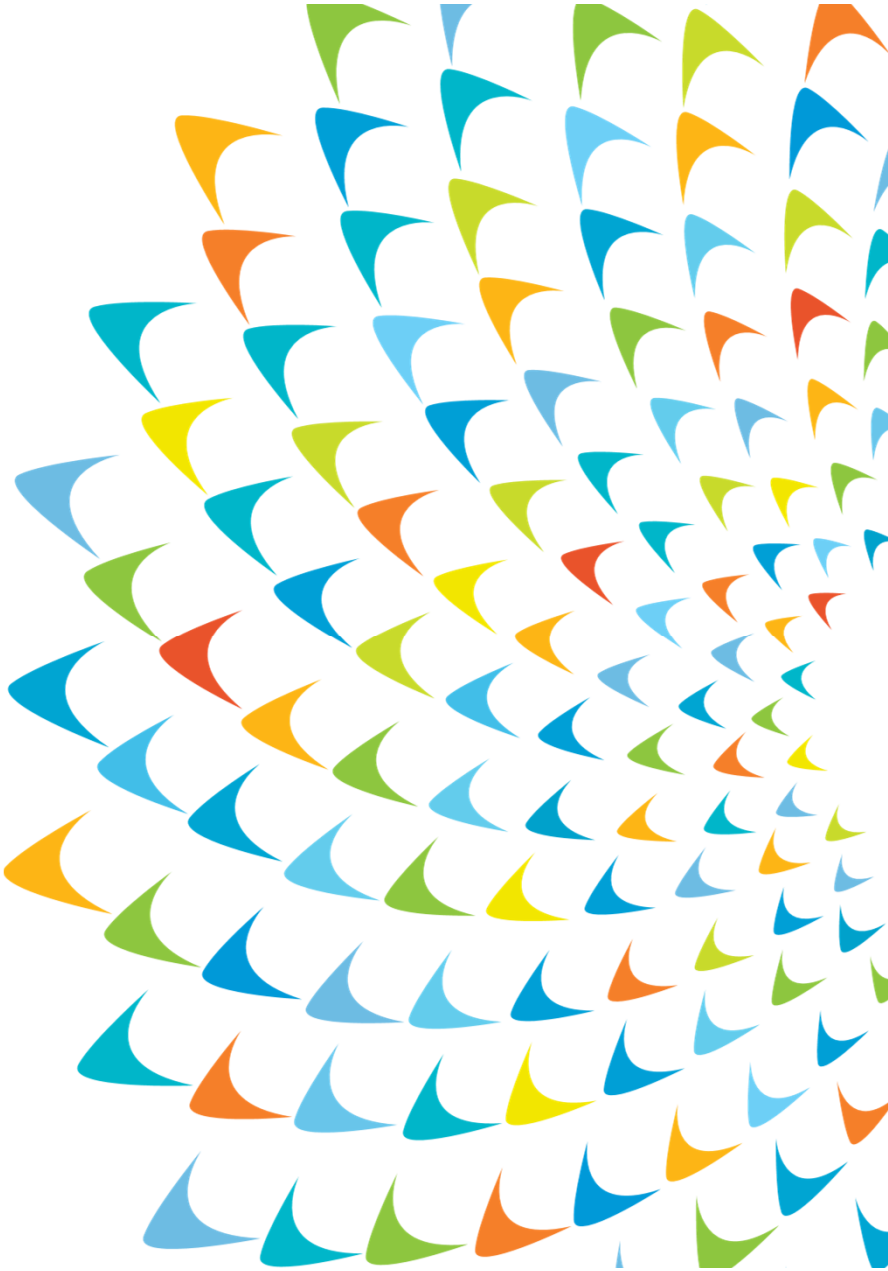
ADB's Support on Hydrogen and the Japan Fund for the Joint Crediting Mechanism (JFJCM)

COP26 Japan Pavilion Side Event
"Building global supply chain of Green hydrogen to support the energy transition toward a decarbonized society"

11 November 2021



Overview of Asian Development Bank

- Established in 1966
- 68 members, 49 regional members, 41 borrowing members
- 3,000+ employees globally
- Triple-A credit ratings (Moody's / S&P / Fitch)
- Commitments in 2020:

($ million)	Total ADB
Total ADB Operations*	**31,594**
Sovereign	**26,826**
Loan	25,749
Guarantee	-
Grants	1,077
Nonsovereign	**1,406**
Loan	1,151
Equity Investment	255
Guarantee	-
Others including Technical Assistance	**3,363**

* Does not include co-financing including trust funds
Source: ADB Annual Report 2020.

ADB's Climate Change Strategy

Strategy 2030 sets ADB's course on how best to respond to Asia and Pacific's changing needs

7 Operational Priorities

- Addressing remaining poverty and reducing inequalities
- Accelerating progress in gender equality
- Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- Making cities more livable
- Promoting rural development and food security
- Strengthening governance and institutional capacity
- Fostering regional cooperation and integration

→ Committed to mobilizing $100 billion in climate finance cumulatively from 2019 to 2030; 75% of committed operations to support climate change mitigation and adaptation by 2030 (October 2021)

2021

Release of updated Energy Policy.

In October 2021, ADB's new **Energy Policy** was approved that promotes a low-carbon transition across Asia and the Pacific

New Energy Policy of ADB (Oct 2021)

➢ Five energy policy principles:

1. Securing Energy for a Prosperous and Inclusive Asia and the Pacific
2. Building a Sustainable and Resilient Energy Future
3. Supporting Institutions, Private Sector Participation, and Good Governance
4. Promoting Regional Cooperation and Integration
5. Integrated Cross-Sector Operations to Maximize Development Impact

- Newer technologies are maturing that can contribute to a **clean energy transition**.
- Electrification; carbon capture, use, and storage (CCUS); **green hydrogen**; and advanced biofuels can all play a role in transitioning the business areas that are more difficult to decarbonize, such as long-range transport, industry, and space cooling and heating.

ADB support on hydrogen for member countries

- Knowledge sharing (workshop, handbook etc.)

  For policy makers and industry players to be aware of the latest trends and technologies, capacity building on safety.

- Support government policy development

  Strategy, roadmap and regulatory framework for H2 energy development

- Enhance the hydrogen trading platform

  Utilization of unused renewable energy resources and international supply chain for global GHG reductions

- Support pilot and scaling up

  Pilot H2 technologies and business models for demonstration and scaling up (feasibility study with consultants)

- Support finance

  Finance H2 energy projects, including production, transportation and distribution infrastructure, as well as market applications.

1st H2 energy workshop in Shanghai, 2019

2nd H2 energy workshop in Tokyo, 2020

Japan Fund for the Joint Crediting Mechanism

JFJCM

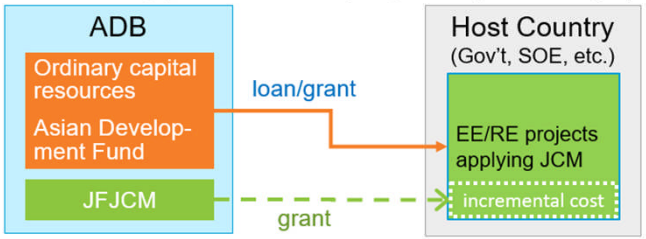
- Established in June 2014 as one of ADB's trust funds
- Contribution by Government of Japan: **$88.46M** (2014-2021)
- Provides **financial incentives (grant)** for adoption of **advanced low-carbon technologies** in **ADB-financed projects** that use the Joint Crediting Mechanism (JCM)*
- Both **sovereign** and **nonsovereign** projects are eligible

* JCM is a bilateral carbon market mechanism initiated by the Government of Japan.

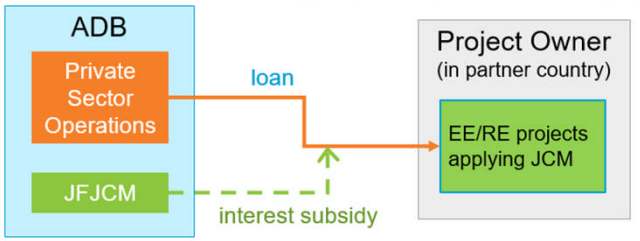
11 out of 17 JCM partner countries are ADB Developing Members

2013	2014	2015	2016	2017
Mongolia Bangladesh Maldives Viet Nam Lao PDR Indonesia	Palau Cambodia	Myanmar Thailand		Philippines
Ethiopia Kenya Costa Rica	Mexico	Saudi Arabia Chile		

JFJCM support to ADB projects (sovereign)



JFJCM support to ADB projects (nonsovereign)



ADB

Overview of hydrogen pre-feasibility study supported by JFJCM

Purposes	➢ To identify the opportunities to introduce hydrogen infrastructure in the **Maldives** and **Palau**, which are partner countries of the JCM; ➢ To contribute to the decarbonization of these countries; ➢ To assess if the identified opportunities can be developed as ADB-financed projects in future with possible support from JFJCM.
Period	Nov 2020 – Jan 2022
Tentative results	➢ For small island countries like Maldives and Palau, the priority should be given to increasing renewable energy penetration. ➢ In parallel, the study may suggest to develop **pilot-scale hydrogen projects** to increase readiness and capacity for achieving net-zero. ➢ Possible technologies to be piloted in Maldives and Palau: ✓ **Fuel cell boats**, possibly with hydrogen production infrastructure for inter-island transportation ✓ **Hydrogen-based micro-grids** with co-generation (e.g. for hotels in resort islands)

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Thank you.