

EXPLAINER

How Blockchain Can Improve Supply Chain Transparency in Maldives



Digital technologies can improve transparency and efficiency in supply chains in Maldives. Photo credit: ADB.

A digital ledger of transactions can help authenticate and ensure the trustworthiness of data.

Introduction

Maldives is exploring the use of high-level technologies to support a national single window system that will make it faster and more efficient to trade with other countries in South Asia and beyond.

Backed by the Asian Development Bank's (ADB) High-Level Technology Fund, the South Asia Subregional Economic Cooperation National Single Window Project will pilot the use of blockchain technology to improve trade facilitation and supply chain management.

The High-Level Technology Fund supports the introduction of advanced digital technologies in international trade to improve trustworthiness, efficiency, and timeliness of local and regional supply chains.

A one-stop electronic platform

Maldives is one of the smallest countries in Asia and the Pacific by population and land area. Its estimated population of 436,330 is widely dispersed over 187 inhabited islands across an archipelago that is more than 800 kilometers long and 130 kilometers wide. Despite its geographical challenges, Maldives has successfully developed many islands into high-end tourist resorts. Strong growth in tourism and tourism-related activities helped the country attain middle-income status in 2010.

Like many small island economies, Maldives relies heavily on imports for food, fuel, and other goods, while exports—primarily of fresh fish and fish products—have been increasing.

A single window for trade can reduce delays and lower costs associated with the clearance of goods while maintaining the needed controls over fees and duties on imports or exports. The national single window is designed to interface with existing systems of cross border regulatory agencies, Malé Seaport, and Velana International Airport. It will address key bottlenecks to international trade procedures. An automated single window system will be established and made operational, and capacity building and competency on its operations will be developed under the project.

How will blockchain be applied in this project?

Blockchain is a distributed ledger technology that has a high potential of improving supply chain management. By recording transactions on a ledger that is visible to all stakeholders, blockchain enhances the trustworthiness of data and improves cost-efficiency through decentralized administration.

As part of the single window project in Maldives, the High-Level Technology Fund will carry out the pilot testing of a blockchain technology solution to supply chain management. It has the potential to contribute to the future operating system of a one-stop electronic platform for trade in Maldives.

The technology is expected to make the documentation process and parcel tracking in cross-border trade more efficient and reliable.

The pilot testing involves three steps:

- i. Identify benefits and risks to be resolved upon technology deployment,
- ii. Raise awareness and build knowledge capacity of stakeholders on technology applications, and
- iii. Formulate an implementation plan and strategy for development.

If the pilot is able to validate the usability and feasibility of the technology, the Government of Maldives is expected to invest further in its integration with the national single window system to ensure sustainability.

What is the High-Level Technology Fund?

Under its Strategy 2030, ADB is mainstreaming the use of advanced technologies by carrying out pilot testing, strengthening project design, emphasizing quality in procurement, and mobilizing subject experts.

The High-Level Technology Fund was established in May 2017 as a multi-donor trust fund in ADB that provides grant financing to encourage more widespread adoption of high-level technologies to address development challenges in member countries. It is currently funded by the Government of Japan.

Following the premise that development impact can be profoundly improved with the right advanced solutions, the fund seeks to promote the integration of high-level technologies and innovative solutions into ADB-financed and administered projects. It also aims to connect technology providers with ADB's project officers and member countries to explore business opportunities for high-level technology integration.

Resources

Asian Development Bank (ADB). Maldives: South Asia Subregional Economic Cooperation National Single Window Project.

ADB. 2019. ADB Backing High-Tech Systems in Maldives to Promote Trade. News release. 31 May.

ADB. 2018. Strategy 2030. Manila.

ADB. 2018. Asian Development Outlook 2018. Manila.

High-Level Technology Fund Website.



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Lin Lu is responsible for the overall coordination of her department's activities in catalyzing innovation across sector and thematic areas as well as across operational and nonoperational departments through the One ADB approach. She is also fund manager of the High-Level Technology Fund. Previously, Lin led energy projects and technical assistance in Central, West and East Asia. Before ADB, she was business development manager at Hollysys Asia Pacific Ltd. She also worked as an electrical engineer and systems engineer in the United States. Lin holds a PhD in Mechanical Engineering from Drexel University.



Asian Development Bank (ADB)

The Asian Development Bank is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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