



Session 10:
Technology, Artificial Intelligence, and Data Analytics

Artificial Intelligence in Action in ADB

Ms. Anastasia Nasyrova
Asian Development Bank

**2026 ASIAN REGIONAL FORUM
ON INVESTMENT MANAGEMENT
OF FOREIGN EXCHANGE RESERVES**

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EXCHANGE RESERVES

Artificial Intelligence in Action in ADB

“ . . . AI will be either the best, or worst thing, ever to happen to humanity.”
—Stephen Hawking,

Anastasia Nasyrova

Treasury Quantitative Analysis Unit - Treasury Department
Asian Development Bank

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WHERE ARTIFICIAL INTELLIGENCE STANDS

Adoption is near-universal. Depth is not.

Four surveys published in 2026: the Bank of Japan, an Asia-Pacific central bank survey, the Cambridge Centre for Alternative Finance, and the Bank of Korea with World Bank Treasury

>90%

Japanese institutions

Financial institutions in Japan using or trialling generative artificial intelligence. Every institution approached responded.

Bank of Japan, Financial System Report Annex Series, August 2026. 150 institutions.

89%

Central banks in this region

Central banks and monetary authorities across Asia and the Pacific that report already using artificial intelligence.

Survey of 19 central banks and monetary authorities, January 2026.

81%

Financial firms worldwide

Financial services firms that have put artificial intelligence into at least one part of the business.

Cambridge Centre for Alternative Finance, with the Bank for International Settlements and the International Monetary Fund, 2026.

40%

But only this many, deeply

Of those firms, the share that has reached scaling or transforming — the point at which it changes how the institution works.

Same survey. Forty-one percentage points separate having it from using it well.

20%

Regulators, deeply

Financial regulators reporting that same advanced stage — half the rate of the industry they supervise.

Same survey. The supervised are ahead of the supervisors.

16%

With a plan for the whole institution

Public asset management institutions that have an enterprise-wide artificial intelligence strategy in place.

Bank of Korea and World Bank Treasury, July 2026.

Almost every institution has adopted it. Far fewer have absorbed it.

The dividing line is no longer between institutions that use artificial intelligence and those that do not. It runs between those that have made it part of how the institution works, and those still experimenting at the edges.

WHY THIS MATTERS IN THIS ROOM

It reached us first. And it moves markets.

World Development Report 2026 and the Bank for International Settlements

6 months

To reach half the world

Time taken for middle-income countries to account for half of global ChatGPT traffic. Electricity took about forty years to travel the same distance.

World Development Report 2026, The Promise of Artificial Intelligence, World Bank.

1 in 5

Small firms already using it

Small firms across six developing economies already using chatbots built on artificial intelligence — close to the share in the United States.

Same report. Arrival is no longer the constraint. Capacity is.

\$500 billion

Invested worldwide today

Global spending on artificial intelligence infrastructure: data centres, cloud capacity and hardware.

Bank for International Settlements, September 2026.

\$3–14 trillion

Expected by 2030

The range industry participants expect by the end of the decade. The width of that range is itself the warning.

Same source. No credible forecaster will narrow it.

77%

Funds holding one company

Share of artificial intelligence and big data funds holding the same single stock. Two further companies appear in 67 percent each.

Morningstar, May 2026. This is concentration, not diversification.

~1% of GDP

In the most exposed economies

Artificial intelligence-related investment — enough to lift growth, move asset prices and make familiar economic signals harder to read.

Bank for International Settlements, September 2026.

The technology reaches everyone at once. The capacity to use it does not.

The World Bank finds developing economies have more to gain and less to fear than wealthier ones — but only where the complements arrive too: power, connectivity, governed data, skills and institutions.

THE PATTERN

Where AI value is realized today

Four buckets — but the heat is not evenly distributed

PROVEN TODAY

Operations, data & reporting

GAINING GROUND

Risk & stress-testing

GAINING GROUND

Research & macro analysis

STILL EXPLORATORY

Portfolio construction

Today's value sits in monitoring, surveillance and analytical support — not in handing over the portfolio.

Why we need the Responsible AI Framework

Four reasons ADB set the rules before building the tools

1

Ethical AI usage

Monitor and control the ethical implications of AI applications, ensuring transparency, fairness, and accountability.

2

Compliance with regulation

Adhere to legal and industry-specific requirements, minimizing risks associated with data privacy, security, and bias.

3

Foster public trust

Adopt responsible AI practices, upholding users' rights and ensuring technology benefits all members of society.

4

Manage risks

Identify and mitigate risks by establishing clear guidelines, review processes, and monitoring mechanisms.

The framework governs how ADB develops, procures, publishes and uses AI for institutional purposes.

HOW ADB APPROACHES IT

Trust before tools

Eight principles govern every AI system ADB builds or buys



People and Planet First

Avoid harm through transparency, elevating human intelligence, and environmental sustainability.



Safety and Reliability

Ensure AI safety, precision, consistency, standards compliance, and rigorous lifecycle testing.



Explainability

AI systems must explain reasoning and transparently document limitations.



Privacy and Security

Implement privacy-by-design, safeguards, consent, access controls, and data protection.



Data Integrity

Ensure data quality, governance, validation, lineage, and reliable sources.



Accountability

Ensure human oversight, roles, accountability, intervention, and documented AI decisions.



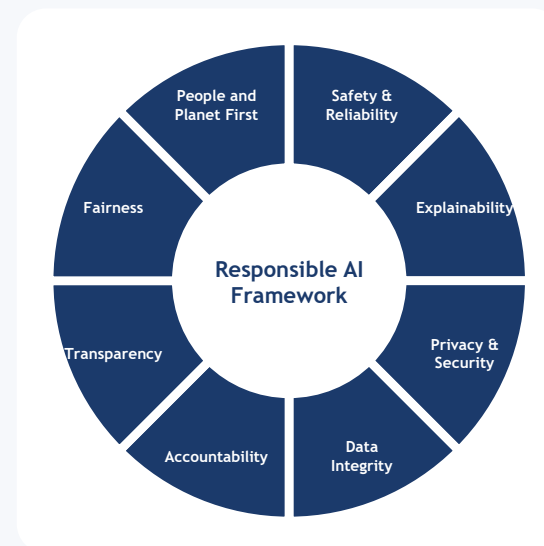
Transparency

Maintain AI transparency, disclosure, and responsible stakeholder communication.



Fairness

Minimize AI bias using inclusive, ethical, cross-disciplinary and inclusive design approaches.



THE AI SAFE TECH STACK

Secured cloud environment

ADB-managed open-source
models

In-house development platform

Data governance layer

Responsible AI Framework — approved February 2026, effective 10 July 2026

THE ANSWER

Governance, from proposal to approval

Every AI use case at ADB runs through a defined risk process



The BIS frames the same idea as a “community of practice”

Central banks coming together to share data, standards and tools — lowering the cost of the IT and talent that adoption demands. AI should support human judgment, never replace it.

HOW ADB APPROACHES IT

From principles to practice

Selected initiatives across Asia and the Pacific, most run through the Digital Innovation Sandbox

IN ECONOMICS

- Economic monitoring using alternative data
- Maritime activity from vessel tracking
- Nowcasting the impact of the pandemic
- Earth observation data

IN DEVELOPMENT OPERATIONS

- Problem tree generator for concept papers
- Assistant for project administration
- Digital twins for road construction
- Resettlement outcome prediction
- Robo-advisor and cognitive search

IN ADMINISTRATION

- Code of conduct chatbot
- Technical assistance messaging
- Recruitment intelligence
- Integrity due diligence platform

IN PUBLISHED THINKING

- Eight blogs and insight pieces
- Abundance or divide · financial inclusion
- Poverty mapping from satellite images
- Data rights and who benefits

The Sandbox was set up in 2018 under Strategy 2030 to test emerging technology before committing to it. The earliest projects were the artificial intelligence ones. One of them — a robo-advisor answering questions on gender, finance and climate — was built six years before ChatGPT launched. It is now the Digital Learning Labs.

HOW ADB APPROACHES IT

From principles to practice

What is actually running inside the institution today



Microsoft 365 Copilot

Enterprise version inside our security and policy boundary — ADB context, not the open web



The Genie Suite

Family of AI assistants — EVA mines lessons from evaluation documents and is now shared across eleven IFIs



SovOps document AI

Extraction and review skills powering 20+ use cases — replaces 7–10 days of manual first-level review



CLARA

Flagship credit-underwriting platform combining ADB internal data with external market intelligence

Every use case runs with a human making the final call

THE GENIE SUITE

The Genie Suite - AI knowledge platform

A family of specialized AI assistants built on a shared, scalable, responsible-AI platform



WHAT MAKES GENIE WORK



7 Genies in the family : 4 for knowledge & compliance · 3 sector-focused

THE PLATFORM

The Genie Suite — one shared architecture

A shared architecture on the ADB Big Data Platform, not a collection of separate tools

ARTIFICIAL INTELLIGENCE FOR RESEARCH

ADB Genie

Transport · Safeguards · Climate and Disaster Risk · Water and Urban Development

Access to ADB and partner knowledge, at the level of a single sector.

ARTIFICIAL INTELLIGENCE FOR OPERATIONS

Four working applications

Audit Genie · EVA · Corporate Results Framework Genie · Report drafting

Automation and analysis across the life of a project.

WHAT THE BUSINESS CASE FOUND

309,200 hours

of manual effort each year before automation

60%

of that effort expected to be removed

85 staff

worth of capacity released for other work

180%

return, with payback in 2.14 years

Governance applied once to the platform applies to everything built on it.

That is the difference between building a capability and buying a set of tools. Capital cost was 2.8 million dollars across 2025 and 2026.

Meet the Genies — Sector-Focused

Domain Genies that bring AI directly into specific sector decisions

1

Disaster Risk Genie

Provides data and information on disaster risks, impacts, policies, projects, adaptation and management solutions, and resilience strategies.

2

Procurement Genie

Trained to provide users with insights on sustainable procurement — guiding project teams and partners.

3

Road Safety Genie

Connects users to data and information that drive smarter decisions and investments to make roads safer.

Each Genie embeds ADB sector expertise and Responsible AI guardrails into a focused workflow.

Meet the Genies — Knowledge & Compliance

AI assistants for drafting, evaluation knowledge, and accelerated reviews

FLAGSHIP

EVA

Evaluation Lessons Retrieval

Generates lessons from public evaluation documents to improve development project design and implementation.

ENDORSED BY Evaluation Cooperation Group

Shared across 11 international financial institutions

1

Compose Genie

Helps users draft documents based on available templates.

2

Audit Genie

Agentic AI reviews documents against compliance workflow checklists, making reviews faster.

3

CRF Monitoring

Supports monitoring of Corporate Results Framework Indicators with AI-driven analytics.

SovOps — two AI skills powering 20+ use cases

Projects · Procurement · Financial Management — with human-in-the-loop on every step

SKILL 1

Document Extraction

Reads non-standard documents — PDF, Word, Excel, even scanned handwriting — and normalizes them into structured data. Works without OCR.

EXAMPLE USE CASES

RBO (handwritten)	Procurement plans
Cost estimates (100+ tabs)	Allocation tables
Design & monitoring framework	Financial management analysis
Bid evaluation reports (300+ pp.)	Covenants (signed agreements)
DLI (no strict standard)	

SKILL 2

Document Review

AI as first-level reviewer — checks clauses, enforces rules, and flags cross-clause inconsistency. Replaces 7–10 days of manual review.

3-LEVEL AI REVIEW

- | | | |
|----|--------------------|--|
| L1 | Verbatim | · Catches words, clauses removed or inserted |
| L2 | Rules | · Enforces rules baked into the standard bid doc |
| L3 | Consistency | · Flags cross-clause inconsistency & discrepancy |

EXAMPLE USE CASES

Bidding documents (500+ pp.)	APFS checklist review
Disbursement vs actuals	Change requests (version diff)

AI is not autonomous — people verify every step and own the decision.

WORKING WITH OTHER INSTITUTIONS

Adopting before building

Two examples of not solving a problem that has already been solved

WITH THE WORLD BANK

SHASTRA

Extracts trade terms from dealer term sheets to build one agreed record of trade data, shared across capital markets participants — covering 60 to 80 billion dollars of issuance each year.

ADB is exploring SHASTRA with the World Bank rather than building an equivalent of its own.

WITH THE UNITED NATIONS

Artificial intelligence as a public good

Joint research with the United Nations University in Macau and the United Nations Office of Digital and Emerging Technologies, published September 2026.

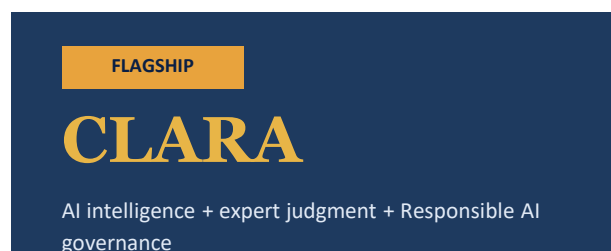
EVA runs the same logic in reverse — one institution built it, eleven now share it.

Cooperation lowers the cost of the technology and of the people who run it.

The instinct in every institution is to build. The faster and cheaper answer is usually to adopt what a peer has already proven. The decision not to build is the more interesting one.

CLARA — Credit Lending Avatar for Risk Assessment

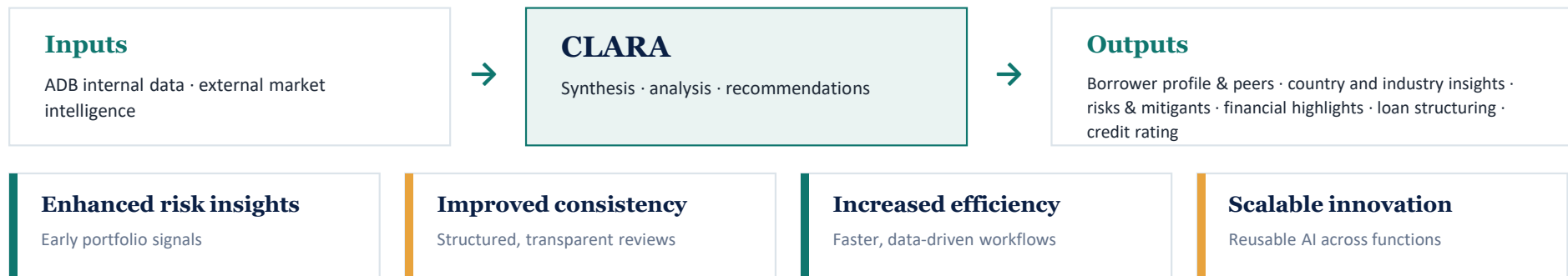
ADB's flagship AI-powered credit underwriting platform — under the AI and Big Data Lab



OUR TAILORED APPROACH



HOW CLARA WORKS



Built by PSOD · ORM · ITD

WHAT COMES NEXT

Two Treasury projects, two different stages

One is a bet on learning. One is a measured operational case. Neither is finished.

EXPLORATORY

TradeBridge

A pilot to learn what workflows driven by artificial intelligence can do in Treasury operations. The stated objective is capability, not savings. Whether it works is not yet known, and I will not pretend otherwise.

IN BUSINESS CASE

Pre-settlement matching

8,492 settlements a year at five minutes each — 708 hours of manual matching. Artificial intelligence reads the unstructured payment advices. It does not validate the settlement. That boundary is deliberate.

ADB is ready to work with other development banks.

On tools, on standards, and on the governance underneath both.

ai.support@adb.org

WHERE TO START

What to pilot next



Quick wins

- Market and news summarization — start here
- Anomaly detection in your own data
- Automated report and committee drafting
- Document extraction and reconciliation



Handle with care

- Models driving live allocation decisions
- Models driving live hedging decisions
- Sensitive portfolio data in external tools without safeguards



Do it together

- Share experience across central banks and MDBs
- Common standards and tooling
- Lowers the cost of IT and talent

The institutions that do best will pair genuine ambition with genuine prudence —
adopting deliberately, governing seriously, keeping human judgment firmly in the loop.

Thank you — I would be glad to take your questions.