

From Roots to Revenue: Securing Finance and Sustainable Solutions Through Agroforestry - The Case of Bamboo

11 April 2025 | Fullerton Hotel, Singapore

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Master of Ceremonies

Jost Wagner

Lead Facilitator
Managing Director, The Change Initiative & Chief
Navigator Asia-Pacific Futures Network



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Welcome Remarks

Leah Gutierrez

Director General
Sectors Department 3
Asian Development Bank



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Welcome Remarks

Christine Engstrom

Senior Director
Finance Sector Office
Asian Development Bank



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Opening Remarks

Cheryl Marie Natividad-Caballero

Undersecretary for High Value Crops
Department of Agriculture, Philippines



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Insights from Singapore: A Letter from Singapore

Lotte Schou Zibell
CEO
Impact Financial Advisory



[https://www.youtube.com/
watch?v=VDy9HYNWAG0
&t=3s](https://www.youtube.com/watch?v=VDy9HYNWAG0&t=3s)

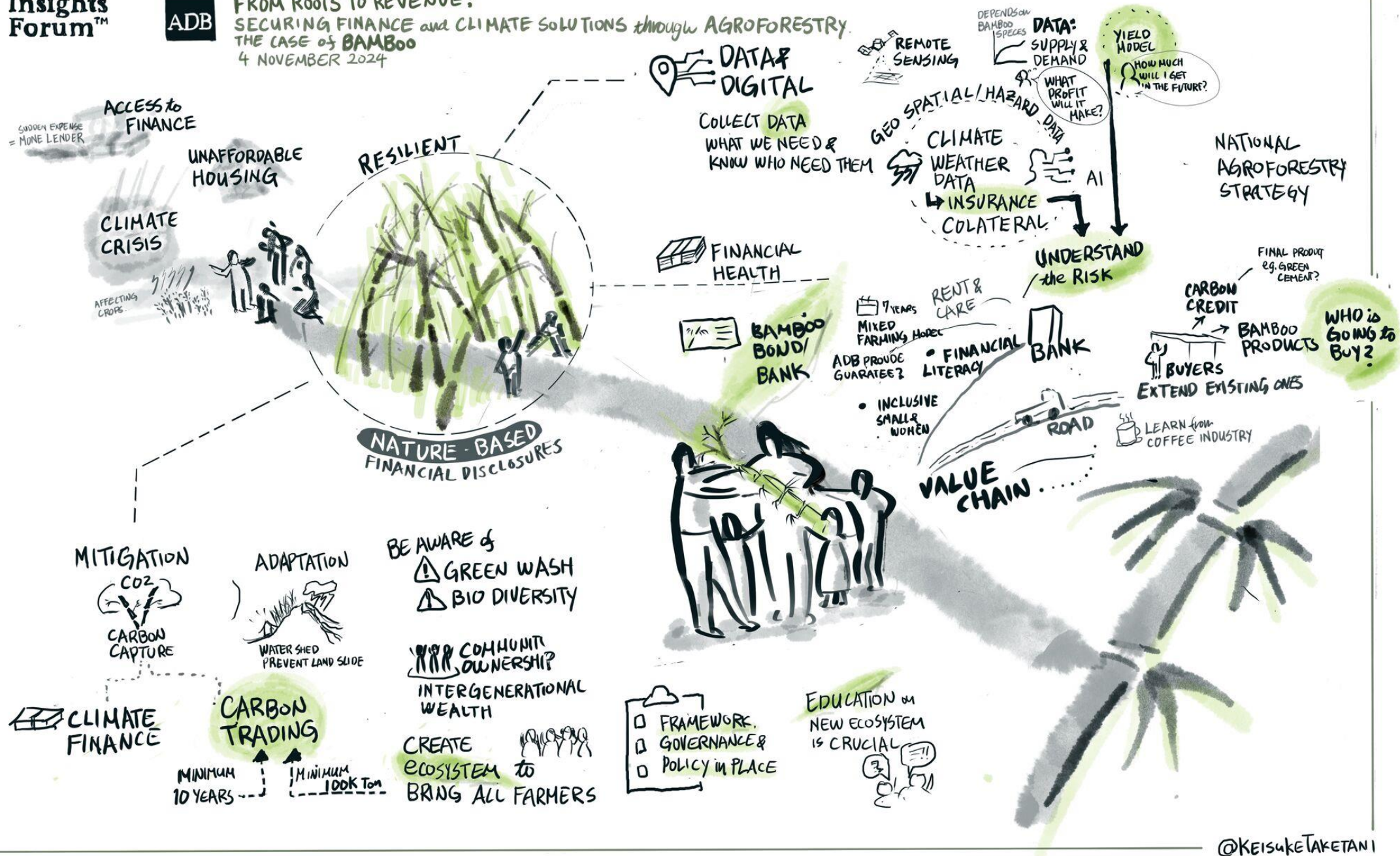
Insights from Singapore

Summary of key findings from the design thinking workshop *"From Roots to Revenue: Securing Finance and Climate Solutions Through Agroforestry – The Case of Bamboo"*

Insight Forum, Singapore Fintech Festival 4 November 2024

Asian Development Bank in collaboration with Global Finance & Technology Network (GFTN) and the Cambridge Center for Alternative Finance

FROM ROOTS TO REVENUE: SECURING FINANCE and CLIMATE SOLUTIONS through AGROFORESTRY THE CASE of BAMBOO 4 NOVEMBER 2024



From Roots to Revenue: Securing Finance and Climate Solutions Through Agroforestry - The Case of Bamboo

- On 4 November 2024, ADB convened a cohort of expert advisors to an ideation workshop, as part of the 2024 Singapore Fintech Festival Insights Forum
- Held in collaboration with Global Finance & Technology Network (GFTN) and the Cambridge Center for Alternative Finance.
- The purpose was to explore bamboo as a secure, bankable, and tradeable asset to drive sustainable finance, climate resilience, and economic growth for vulnerable communities .
- The session also examined how a pilot project in the Philippines might be designed, scaled, and replicated globally.
- Experts from government, finance, impact investing, fintech, climate tech, agroforestry, and digital technology were able to synthesize diverse perspectives on this topic and help shape next steps.

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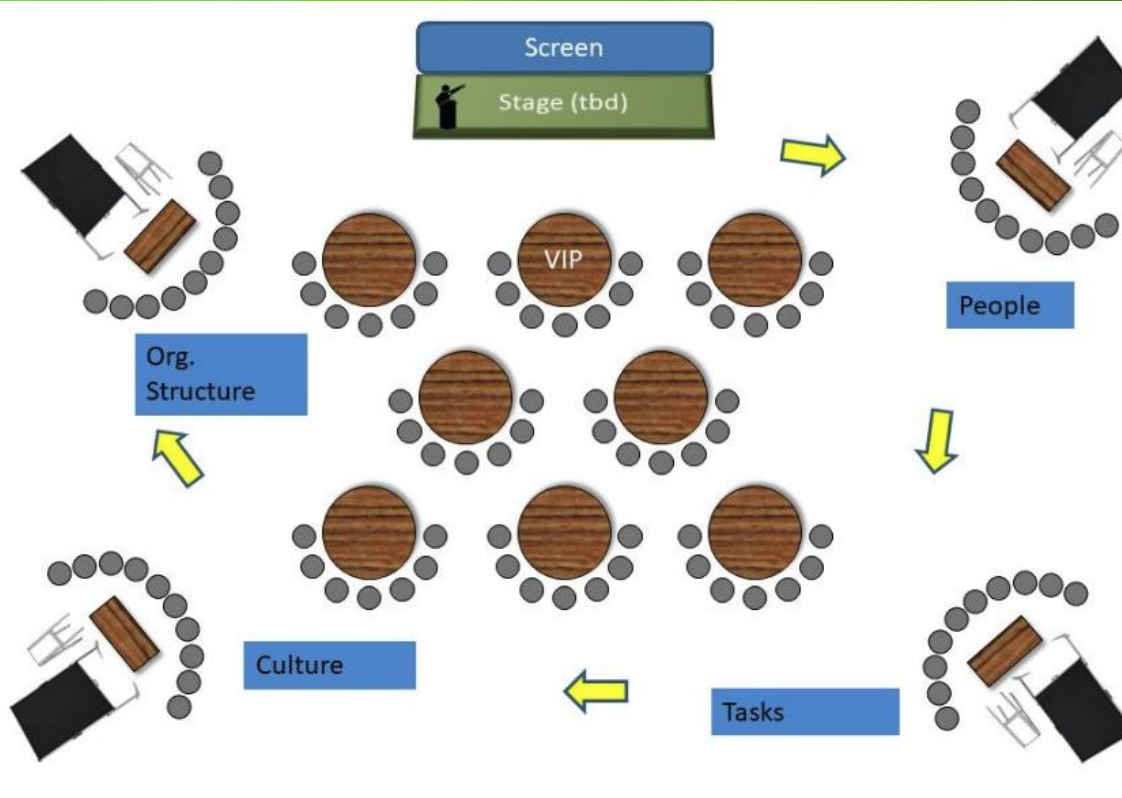
Experts were randomly divided into three groups, which then rotated through three stations, each with a specific focus and two overarching guiding questions

- Station 1: Improving Financial Health
- Station 2: Better Data
- Station 3: Climate Resilience

Participants acted as an advisory group for the project, tasked with giving their best advice and practical recommendations for the station theme.

Each group’s answers were recorded and shared using post-it notes on a whiteboard and through audio recordings, which were subsequently transcribed and anonymized.

The key findings for each station are summarized in the following slides.



Overall

Bamboo is a versatile material indigenous to many parts of Asia and the Pacific that has the potential to empower indigenous and grassroots communities to reduce poverty, and at the same time contribute to carbon capture, climate change mitigation, and adaptation.

The strategic use of technology is key to harnessing the transformative potential of bamboo agroforestry, notably the geocoding of bamboo plants, geospatial technology to map areas of bamboo cultivation, and artificial intelligence to support precise asset valuation and predict risks to future yields.

Station 1: Improving Financial Health

To build a sustainable bamboo value chain, farmers need clear land rights, education on crop and financial management, annual cash flow, and reliable data about the market for bamboo and its processed products.

Pre-determined off-take arrangements are crucial to giving farmers the certainty that they need to invest time and money in bamboo agroforestry

Pressure to demonstrate environmental and social impact along the value chain can help stimulate demand for bamboo as a sustainable product.

The enabling environment for this encompasses financial systems, aggregation of harvests and supportive policies.



Station 2: Climate Resilience

- Climate finance can enable bamboo to support climate change mitigation and adaptation building resilient communities at scale
- Affordable, disaster-resilient housing is a good starting point, where bamboo could reduce carbon emissions by up to 80% compared to conventional materials.
- The financial benefit of bamboo's role in creating carbon credits is a much more long-term goal and communities will need to band together to reap multigenerational gains from carbon credits.
- Bamboo-specific instruments such as green bonds, and even bamboo-specialist banks, could emerge.
- Both commercial banks and real estate developers play a crucial role in realizing the potential of bamboo, catalyzed by early-stage support from ADB, and supported by government-level incentives.
- Monitoring investments in planting projects in remote areas is crucial; technology can help, for example, via geotagging of bamboo roots, and remote sensing.



Station 3: Better Data

Data is key to realizing the value of bamboo as a secure, bankable, tradable asset, and data collection has to be carefully thought out to ensure that what is created is of value to farmers, financing entities and other stakeholders.

Geospatial technologies and artificial intelligence tools will play an important role.

Yield models are key, for farmers to know what they can make and for bankers and insurers to calculate risk; they can be adapted from models for other crops.

Supply and demand data are needed to measure, verify, and standardize the financial value of bamboo.

Ten years' worth of land use data is also key for farmers to claim carbon credits.



Conclusion

ADB is committed to explore and advance the transformative potential of bamboo in sustainable development by unlocking its capacity to become a secure, bankable, tradable asset.

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Keynote Speech: Bamboo's Role in Sustainability and Climate Solutions

Susanne Lucas

Executive Director
World Bamboo Organization (WBO)



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Keynote Speech: Global Bamboo Development

Jayaraman Durai

Director Global Programmes
International Bamboo and Rattan Organization (INBAR)



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Knowledge-Sharing: Overview of Geospatial Technology & Its Use-Cases

Thibaud Vantalon

Deep learning specialist
Alliance Bioversity-CIAT



Syams Nashrrullah

Team Leader
Asian Institute of Technology





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Coffee Break

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Lightning Talks Stories from Field

David Sands

Founder and Chief Production Officer
Rizome Philippines



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Lightning Talks Stories from Field

Camille Rebelo

Co-Founder
EcoPlanet Corporation



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Lightning Talks Stories from Field

Pablo Jorillo

General Manager
Base Bahay



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Lunch Break

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From Pilot to Prototyping: Group Formation

Group 1: Financing Roadmap

*Addressing Planting,
Transformation, and
Offtake*

Facilitator: Arvind
Resource Persons: Jen
and Peter

Group 2: Data Roadmap

*Transparency for a
secure asset, accurate
valuation for a bankable
asset, market price
discovery for tradeable
asset*

Facilitator: Tamara
Resource Persons: Lotte,
Paolo, Amit

Group 3: Philippine Roadmap

*Focusing on Affordable,
Disaster-resilient, and
Sustainable Housing, or
on Pulp for Sanitary
Products and Cellulosic
Bioethanol*

Facilitator: Jost
Resource Persons: Emil
and Hans

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From Pilot to Prototyping: Guiding Questions

Empathize
and Define



Ideate



Prototype

Test and
Iterate



Impacts the Project Is Aligned With



Results Chain



Performance
Indicators



Data Sources
and Reporting
Mechanisms



Risks and
Critical
Assumptions

Outcome

Outputs

Key Activities with Milestones

Inputs

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Closing Remarks

Jackie Surtani

Regional Director
ADB Singapore Office



SAVE THE DATE
23-25 September 2025

5th Asia Finance Forum
Positioning for the Future

ADB Headquarters, Manila, Philippines

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