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

Insights Forum™

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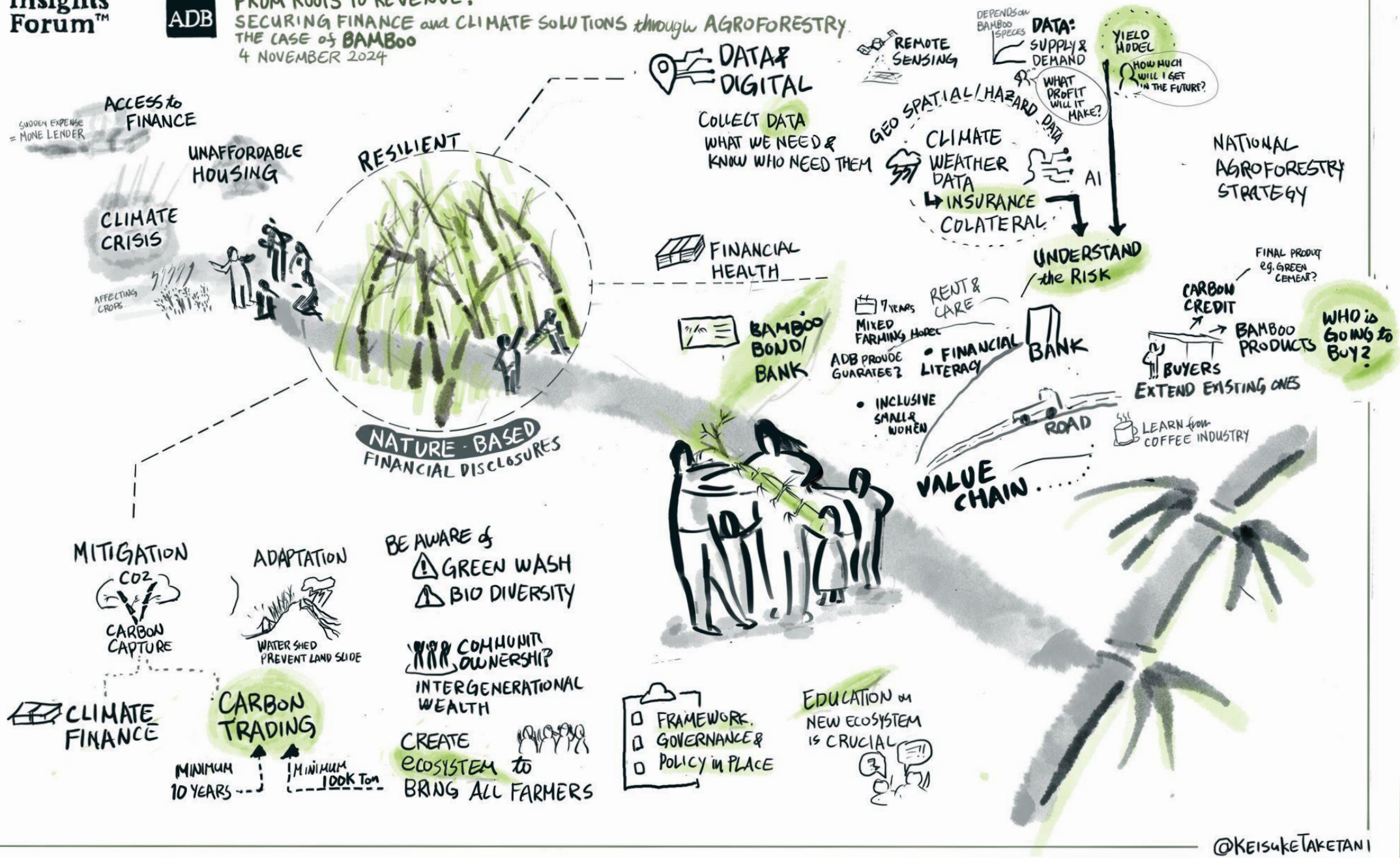
FROM ROOTS TO REVENUE: SECURING FINANCE and CLIMATE SOLUTIONS through AGROFORESTRY
THE CASE of BAMBOO
4 NOVEMBER 2024



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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.

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

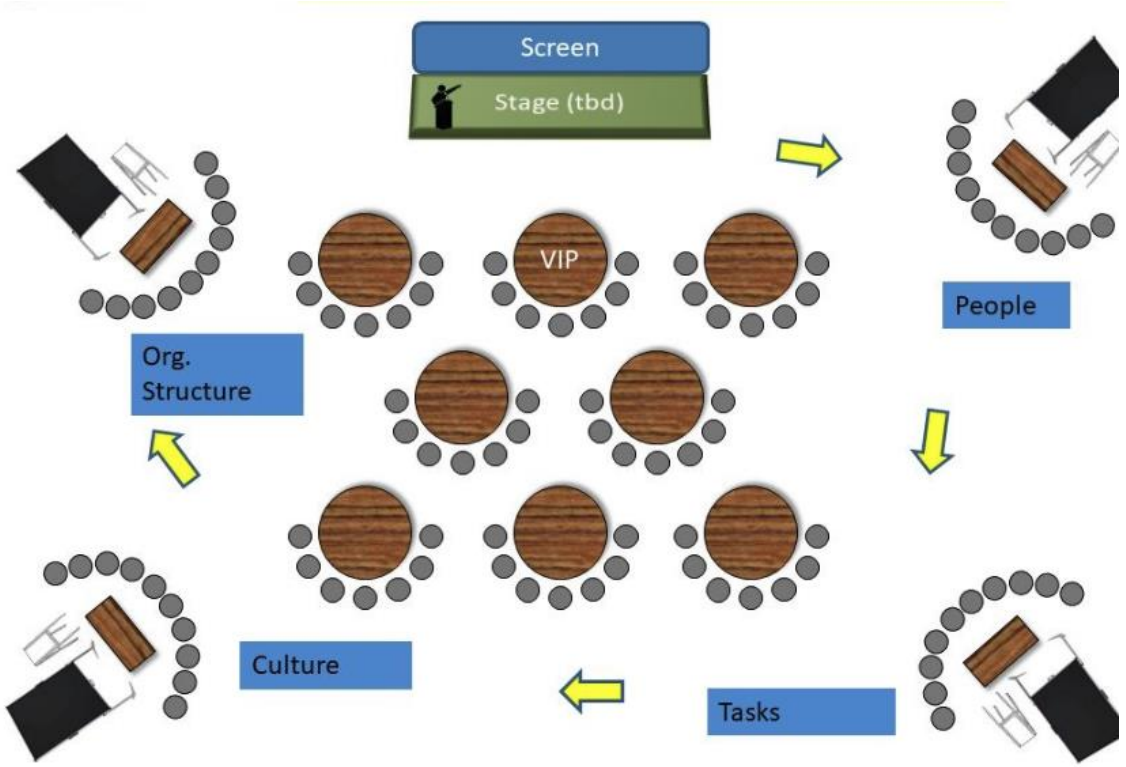
Experts were randomly divided into three groups, which then rotated through three stations, each with a specific focus and two overarching guiding questions

- 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 build 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 climate 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.