



Adaptation Asia – Panra Fund



October 2026

About the Lab

The Global Innovation Lab for Climate Finance, hosted by the Climate Policy Initiative, identifies, develops, and launches sustainable finance vehicles that can drive billions of dollars into a low-carbon economy. The Lab is an independent, neutral third-party which stress-tests vehicles (design & capital structure, impact framework, implementation plans) to support their development into market-ready solutions.

This Blueprint document is a summary of the analytical results from the rigorous incubation program. The Lab aims to inform the market on the structures and concepts that have been designed to enable innovation to cross-pollinate, implementation to scale, and partnerships to form.

The authors of this blueprint are Norman Tilos and Vivian Wijaya. Publication date October 2026.

The concept has been proposed and is currently under development by Adaptation Asia (proponents). The authors would like to acknowledge Ben Warren and Nathaniel Matthews for their cooperation and engagement with the Lab program.

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More information at www.climatefinancelab.org.

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SECRETARIAT

 CLIMATE
POLICY
INITIATIVE

Incubated with strategic guidance from institutional experts

The following organizations and individuals contributed to technical review across impact, structuring, and Technical Assistance Facility aspects during Panra Fund's incubation.

Organization	Name	Job Title
ADFIAP	Cora Conde	Group Head, ADFIAP Consulting
Asia Philanthropy Circle	Swati Agarwal	Director of Climate
Climate Bonds	Ina Hoxha	Chief Investment Officer
Emergent	Francisco Macedo	Manager
Forest Carbon	Devan Wardwell	Chief Investment Officer
HSBC Philippines	Ceejay Hernandez	Head of Sustainability
Ostara Collective	Jenny McInnes	Senior Fellow
Oxford Policy Management	Naveed Chaudhry	Principal Consultant & Senior Leader, Private Sector Climate Finance
Temasek Foundation	Theodore Pang	Associate Director, Climate & Liveability
UK FCDO	Gail Warrander	Senior Urban Resilience Specialist

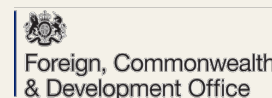


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What is the Panra Fund?

Unlocking adaptation finance for agricultural supply chains while strengthening the resilience of agribusinesses and smallholder farmers.

Panra Fund is a private debt fund that deploys flexible and traditional debt to agribusinesses in Southeast Asia and rewards verified improvements in ecosystems.

Vehicle Size

USD 50M + USD 5M (TA)

60% commercial, 40% concessional

Geography

South-East Asia

Initial pilot in the Philippines from 2027, with regional scaling thereafter

Land under Regenerative Practices

3,500,000 Ha

Projected land adopting regenerative agricultural practices

Smallholder Farmers Reached

1,800,000

Estimated smallholder farmers reached over the fund life

Indicative Investor IRR

8% - 12%

Expected investor IRR throughout the fund life

What is the Panra Fund?

Southeast Asia is highly exposed to climate shocks, with potential agricultural losses reaching up to 6% of GDP under climate-risk scenarios.¹ The Philippines is a particularly acute case, where typhoons and floods cause an estimated USD 500 million in annual agricultural losses.² These shocks severely disrupt agribusiness cash flows. More broadly, 40% of Philippine MSMEs affected by major disasters are reported to cease operations.³

To address this challenge, Adaptation Asia has developed the Panra Fund, a USD 50 million debt fund. The Fund targets growth-stage agribusinesses in high-value export commodities such as cacao, coffee, rice, and bananas. By integrating blended finance, technical assistance, and Resilience Assets, Panra offers Revenue-Based Financing (RBF) and term loans to these businesses. A donor-funded Technical Assistance (TA) facility further supports farmer-level resilience interventions, converting verified ecosystem improvements into Resilience Assets, which are then purchased by corporates, rewarding farmers for adopting regenerative practices.

The Fund is distinguished by four key attributes:

- **Innovative:** Combining flexible financing for agribusiness Small and Medium Enterprises (SMEs) with a mechanism to monetize verified climate resilience outcomes, which are converted into Resilience Assets – aligning agribusiness cash flows, smallholder farmer resilience, and corporate supply-chain interests within one model.
- **Actionable:** Implementation pathways are in place for a pilot to begin early 2027 in the Philippines, with regional scaling thereafter within 12–18 months.
- **Financially Sustainable:** A layered capital stack (USD 30M senior, USD 16M junior, USD 5M TA) crowds in commercial capital while recycling repayments to reduce concessional dependence in the long term.
- **Catalytic:** Initial pilots will validate the model to later mobilize USD 30M in commercial capital.

Secretariat Recommendation:

The Lab Secretariat recommends endorsing the instrument, as it meets the Lab’s criteria.

Next Steps:

Launch initial pilot, secure first close anchor commitments, and establish the fund and legal structure within 12 to 18 months. Then mobilize the full USD 50 million fund and scale the regional pipeline.

¹ UNESCAP 2025

² DA 2025

³ Sun Star 2026

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Panra Fund is developed by Adaptation Asia, led by professionals with 20+ years of climate finance and agrifood experience



adaptation asia

Impact investment and climate finance company focused on resilient agrifood systems.



Ben Warren

Founder and Managing Partner

Sustainable finance professional with 18+ years' experience in impact investment and agri-finance. Ben has spent a decade living in Asia, raising \$100M+ from leading global impact investors. Ex-Proximity Finance, Better Society Capital, UNOPS.



Nathaniel Matthews

Founding Partner

Water and food systems scientist with 25+ years' experience in biodiversity, resilience, and climate initiatives. Nate is a visiting Professor at King's College London and has held leadership roles with CGIAR & UNEP.

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Southeast Asia and the Philippines are highly vulnerable to climate shocks

REGIONAL EXPOSURE

The Philippines and Myanmar rank in the Global Top 10 of the World Risk Index for natural-hazard exposure; Vietnam follows in the top 15.¹

6% of GDP

Potential annual losses in Southeast Asian agriculture under climate warming scenarios.²

USD 500 million

Estimated annual agricultural loss in the Philippines from typhoons and floods.³

4%

Projected drop in Philippine crop yields due to extreme weather events by 2050.⁴

40%

Affected MSMEs in the Philippines that shut down after a major disaster.⁵

¹ BEH and IFHV 2025

² UNESCAP 2025

³ DA 2025

⁴ CTA 2025

⁵ Sun Star 2026



Paired with rigid credit that amplifies climate losses

After climate shocks, fixed loan repayment structures can trap agribusinesses in a cycle of default, lost credit, and therefore lower resilience.

Before a climate shock, an agribusiness has a seasonal loan with a fixed repayment schedule.

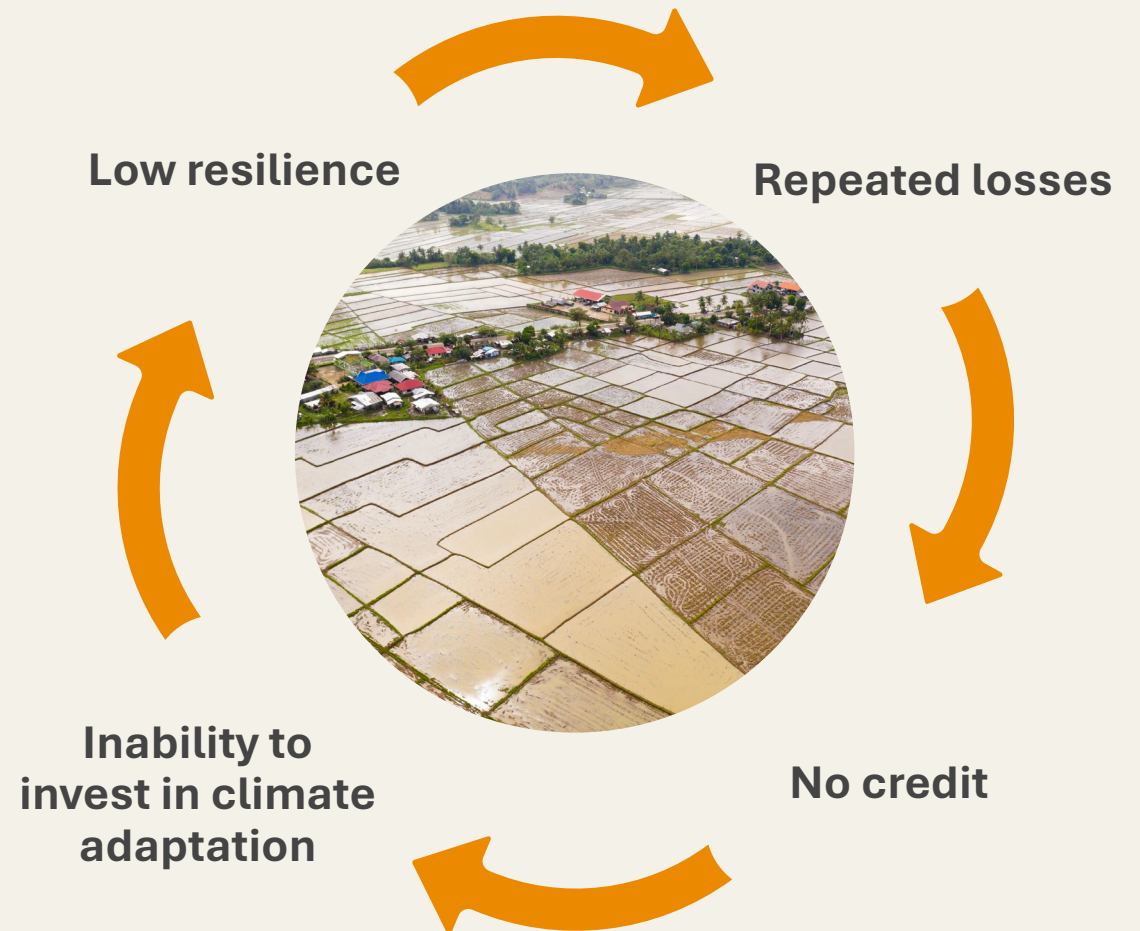
Then, an **extreme weather** event occurs, and farmer **revenues drop** 40-60%.

Yet, the loan obligations remain, so **defaults rise**.

The banks **suspend or recall credit lines**, precisely when farmers need it the most.

The farmer is left vulnerable not only to climate shocks, but also to lost access to funding.

Without working capital, **farmers cannot invest in climate-smart agriculture (CSA)**, or make any other resilience interventions, so the next disaster hits even harder.



Agriculture is critical to Southeast Asia's economy, yet remains underserved by finance providers

Only one in three agri-SMEs across the region currently has access to formal credit.

9.8%

Agriculture's contribution to ASEAN GDP¹

28%

Percentage of ASEAN population employed in agriculture²

90,000

Agribusinesses in Southeast Asia³

FINANCING GAP

USD 189B

in adaptation finance needed by 2030 for Southeast Asia.⁴

FORMAL CREDIT REACH

34%

of Agri-SMEs in Southeast Asia are currently served by formal credit.⁵

¹ SOA 2025

² ISF Advisors 2022

³ PSA 2026

⁴ CIIP 2026

⁵ ISF Advisors 2022

In the Philippines, this unmet financing need represents a **USD 7 billion** market

If the Philippines invests just 0.5% of its GDP in climate adaptation, it can avert losses of up to **4% of its GDP** by 2100.⁶

Sector Scale

9%

Agriculture's contribution to Philippine GDP

10M

Number of people employed in the sector

7.7M

Agriculture operators in the Philippines in 2022¹

Financing Gap

<33%

Proportion of Philippine farmers served by formal credit²
1.9%

Share of agriculture, forestry & fishing in total loans outstanding of the PH Banking System³
USD 884M-1.5B

Adaptation finance gap in the Philippines⁴
USD 7B

Total addressable market⁵
¹ PSA 2026

² Malaya 2025

³ BSP 2026

⁴ CARE 2020

⁵ Ducanes 2020

⁶ ADB 2009

Four opportunities are expanding the market for adaptation debt in Southeast Asia

Revenue-based financing, corporate demand for resilience, multilateral backing, and regulatory arbitrage come together to turn a USD 189 billion gap¹ into an investment opportunity. **Every USD 1 invested in adaptation is forecasted to yield USD 10.50 in benefits over a 10-year period.**⁷



Revenue-Based Financing Innovation

Agribusinesses need risk absorption, not just more debt. Repayments that flex with revenues can absorb seasonal shocks and climate dips.²



Corporate Demand for Resilience Outcomes

Multinationals are already using insetting to reduce Scope 3 emissions.³ The next frontier is monetizing adaptation outcomes directly – creating revenue streams for farmers from verified resilience.



Growing Multilateral Capital Flows

GCF anchored a USD 250M blended finance fund with a USD 36M commitment to accelerate climate adaptation in regional agrifood systems.⁴ The World Bank approved a USD 1 billion loan for the Philippines' Sustainable Agricultural Transformation (PSAT) program to improve climate resilience.⁵



Regulatory Arbitrage

A debt fund can function as a regulatory arbitrage tool for banks, offering a compliant turnkey solution to meet the Philippines' 25% agricultural lending mandate like The Agriculture, Fisheries, Rural Development Financing Enhancement Act of 2022.⁶

¹ CIIP 2026

² UVM 2012

³ Anewclimate 2026

⁴ PR Newswire 2025

⁵ PNA 2026

⁶ SC e-Library 2022

⁷ WRI 2025

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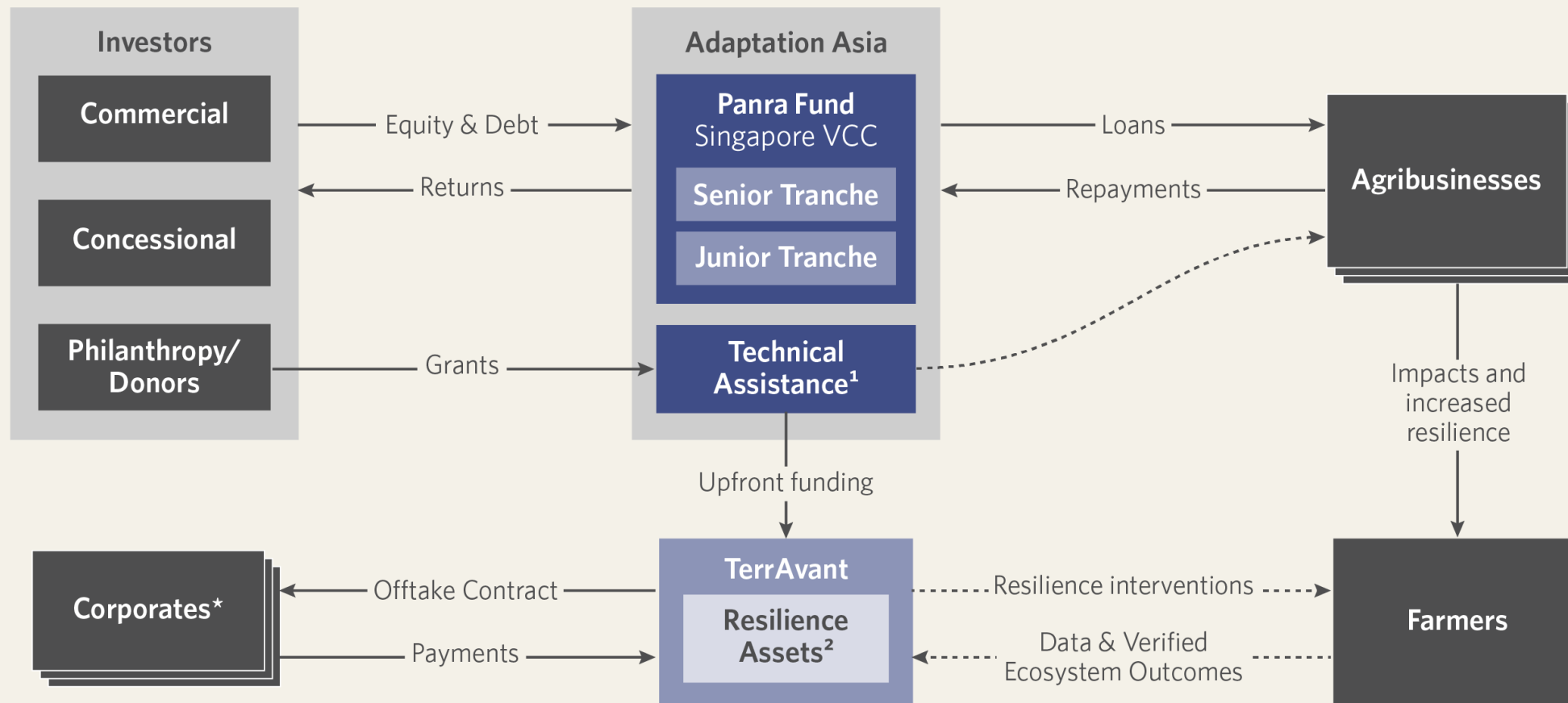
Panra Fund combines flexible debt financing, technical assistance, and resilience assets

- 1 Panra Fund is a debt fund that pools investor capital and deploys flexible debt to agribusinesses, with Adaptation Asia as the General Partner.** Commercial and concessional investors capitalize the Panra Fund, which deploys capital to growth-stage agribusinesses through revenue-based financing and traditional term loans. Revenue-based repayments are linked to agribusiness revenues and capped to better align debt service with seasonal cash-flow cycles and adjust to shock or abundance events. Repayments flow back to the Fund and are used both to recycle capital into new investments and to make distributions to investors over the Fund life.
- 2 Technical Assistance Facility.** Philanthropic and donor capital supports Panra fund investees in areas such as Environmental and Social Management System (ESMS), gender-responsive practices, climate-smart production, and business financial resilience. At the same time, it provides upfront funding for farmer-level interventions.
- 3 Funding resilience interventions at farmer level, whose verified outcomes can be converted into Resilience Assets.** Upfront funding is provided to service provider TerrAvant, who will coordinate interventions, such as parametric insurance, climate-resilient seeds, sustainable land management (erosion control), soil covering practices, and water-efficient irrigation measures to strengthen agribusiness and farmer resilience. A Resilience Asset is an instrument that turns verified resilience improvements into an outcome that corporates can pay for to support more resilient agricultural systems.

TerrAvant will integrate the agribusiness's landscape management plan and baseline data into its platform to establish the starting point for measurement. As intervention results are generated over time, TerrAvant tracks and verifies changes against this baseline and packages the verified outcomes into a "Resilience Asset."

Panra integrates blended finance, TA, and RA within one vehicle

Investor capital is deployed as debt to agribusinesses, complemented by donor-funded TA and a Resilience Asset mechanism that converts verified farmer outcomes into corporate payments.



¹ Further detail on [page 20](#).

² Further detail on [page 21](#).

* Directly exposed to SME supply

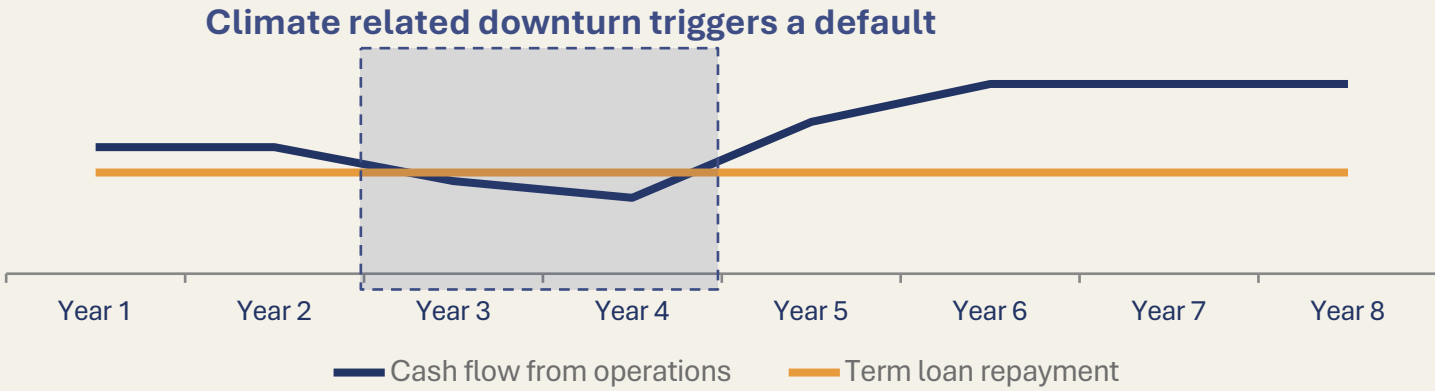
RBF aligns debt service with agribusiness cash flows

TERM LOAN

Interest

Principal

Both components are fixed over the life of the loan. The installment is identical in a good year and a bad one.



Repayment stays constant every year, hence a business downturn can trigger defaults.

REVENUE-BASED FINANCING

Fixed Portion

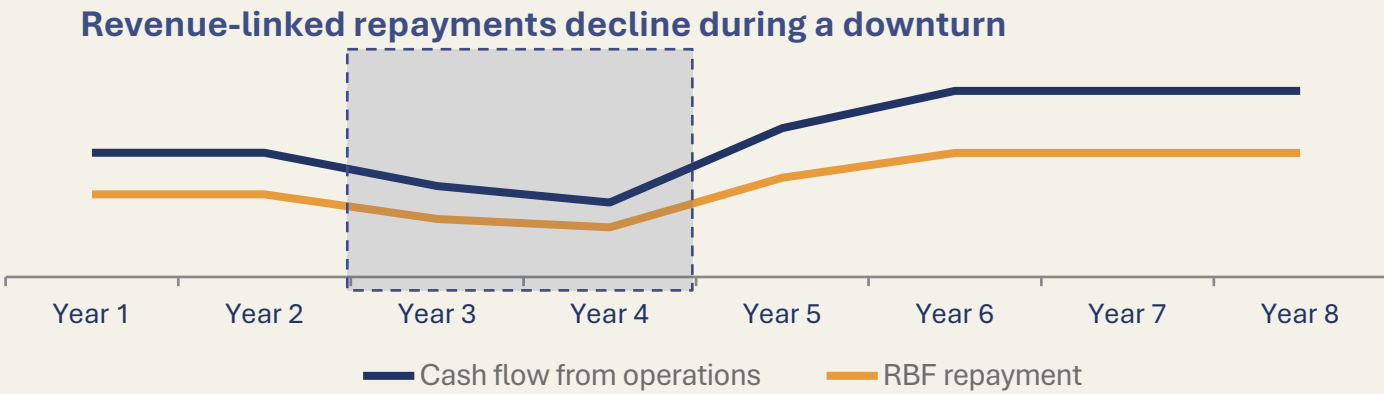
Varying repayment – Revenue-linked portion

Repayment Cap

A small fixed payment as a % of total loan each year, to instill repayment discipline.

Variable payment calculated as a % of gross revenue; repayments rise as revenues grow and fall when revenues decline.

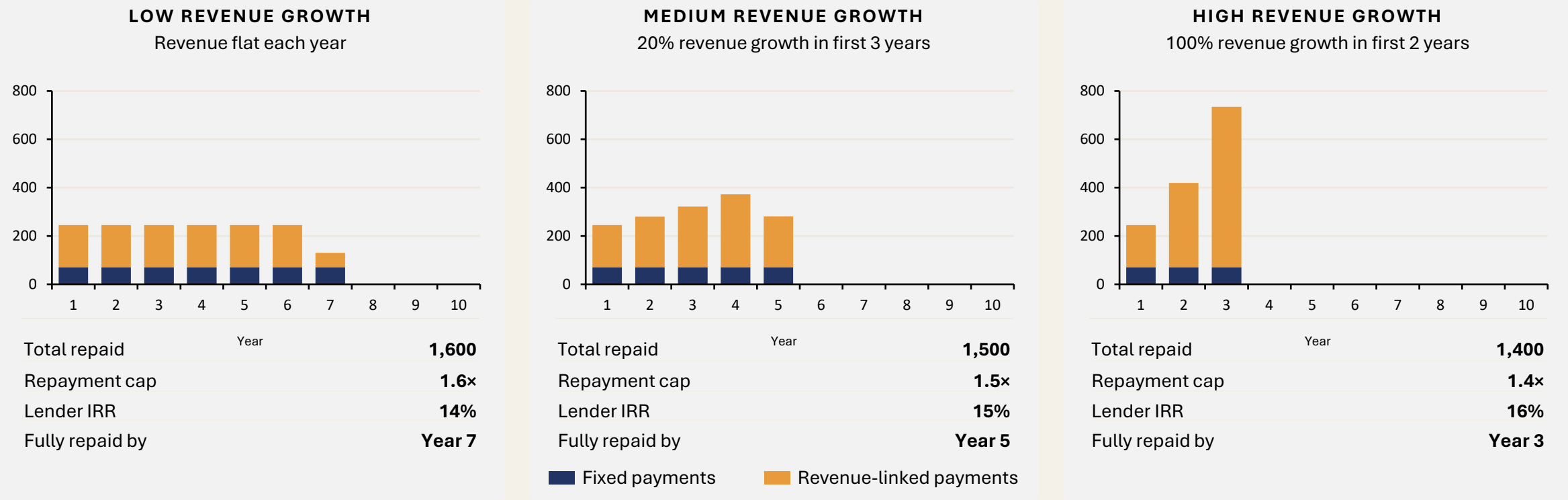
Maximum total repayment is fixed upfront. Repayments stop once the cap is reached; earlier repayment reaches a lower cap.



RBF adjusts with borrower revenues, preserving repayment headroom during business downturns.

Tiered repayment caps incentivize earlier repayment

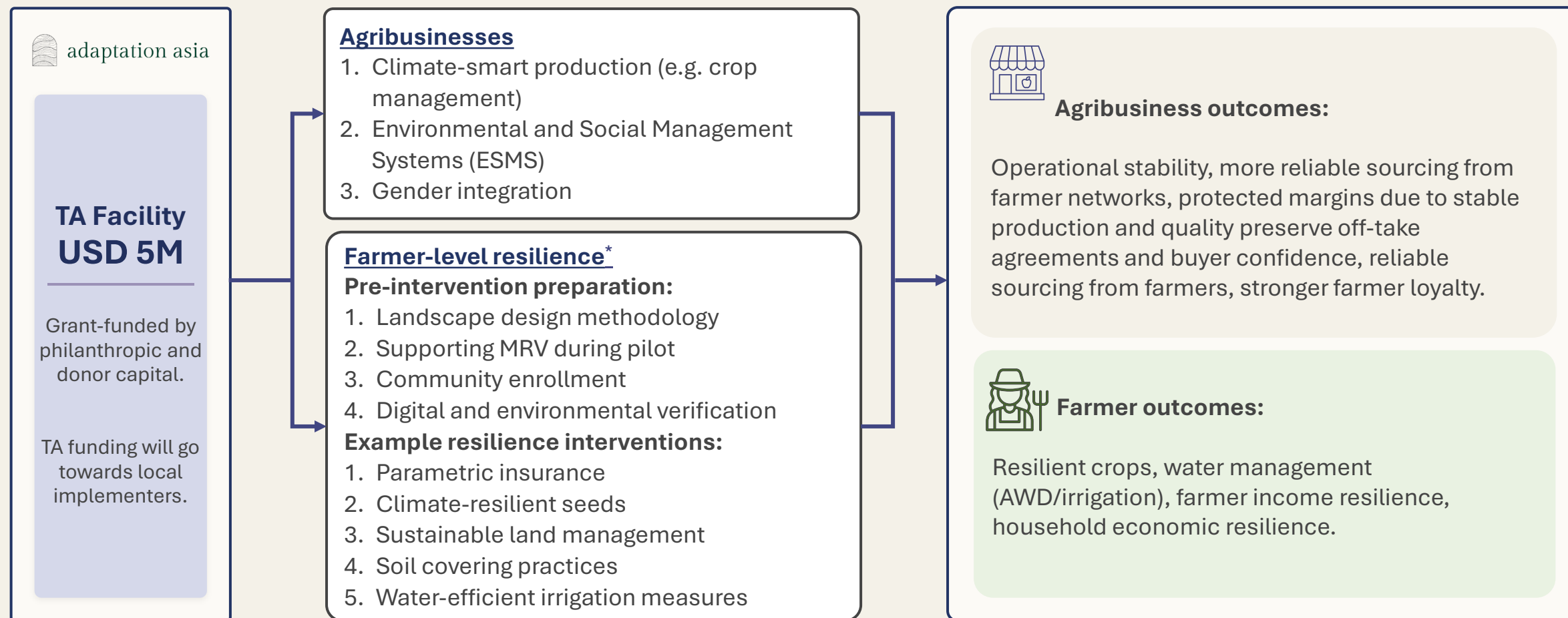
Repayment caps increase incrementally with tenor (1.4x - 1.5x - 1.6x), incentivizing earlier repayment as revenues grow.



- **Total repayment is capped and incentivizes earlier repayment:** Borrowers know their maximum repayment upfront, with caps ranging from **1.4x to 1.6x**; faster repayment reaches a lower cap, while slower repayment results in a higher cap.
- **Earlier repayment supports lender IRR:** Although faster-growing borrowers repay at a lower cap, earlier cash realization can result in higher lender IRRs.
- **Underreporting is disincentivized:** Delayed repayment can move the borrower into a higher cap band, increasing total repayment.

TA facility includes both agribusiness and farmer-level interventions

The USD 5M grant-funded facility supports agribusiness TA and upfront grant funding for farmer-level resilience interventions during the pilot. The farmer resilience component is intended to be self-replenishing because once outcomes are verified and paid by corporates (through Resilience Assets), it will be fully recycled to finance future interventions.



*Note: Farmer-level resilience will be delivered through the Agribusinesses

How Resilience Assets are developed, verified, and monetized

TerrAvant coordinates structuring, delivering, and MRV across the intervention process, converting farmer-level interventions into verified outcomes for corporate buyers. During the pilot, a portion of the TA funds this process.



Key barriers hindering adaptation finance

Panra tackles key financing and pipeline barriers through flexible capital, de-risking, and resilience interventions.

BARRIERS

SOLUTIONS

Unclear Monetization of Resilience. Adaptation delivers long-term public goods; near-term commercial returns are indirect and uncaptured.

Generate "Resilience Assets." Quantify & verify resilience outcomes (water, soil, risk) and generate as sellable assets to off-takers and other buyers.

High-Risk Profile of Agri-SMEs. Composite barrier: lack of collateral, fragmentation, weak data, scarcity of investable SMEs.

Blended Finance + Revenue-Based Financing (RBF). First-loss guarantees de-risk portfolios. RBF ties repayments to revenue—no collateral needed.

Lack of Collateral & Tenure. No land titles disqualifies SMEs from standard bank lending.

RBF + Traditional Financing. Repayments tied to performance, not assets. Equipment & warehouse receipts as alternative collateral.

Small, Fragmented & Non-Bankable SMEs. Scarcity of investable SMEs; weak management and data systems.

TA-Driven Pipeline Aggregation. Build investable SMEs via standardized data, management training, and supply-chain aggregation

Lack of Bankable Proposals. Weak risk assessments, baselines, and financial models.

Embedded TA = Deal Team. TA builds lender-ready safeguards for agribusinesses (climate-smart production, ESMS, gender integration) and generates verified data and de-risked cash flows for farmers (landscape design, MRV, verification, resilience interventions)—turning proposals into investable deals.

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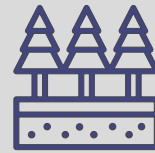
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A revenue-aligned debt investment strategy for climate-resilient agribusiness growth

Panra provides revenue-based and term loans to agribusinesses, while investors earn financial returns from loan repayments.

TARGET AGRIBUSINESSES

- Deploy USD 1- 5M (average ticket USD 2.5M) flexible debt to growth-stage agribusinesses
- Agribusinesses with smallholder farmers networks within climate-exposed supply chains
- Link repayments to revenue milestones and seasonal cashflows
- Finance working capital, capex, trade finance, and growth initiatives
- High-value export commodity focus



Revenue-Based Financing (60%)

- Debt financing linked to gross revenue milestones of agribusiness
- Tiered repayment caps reward faster repayment and discourage delayed or underreported revenues
- Tenor varies per loan



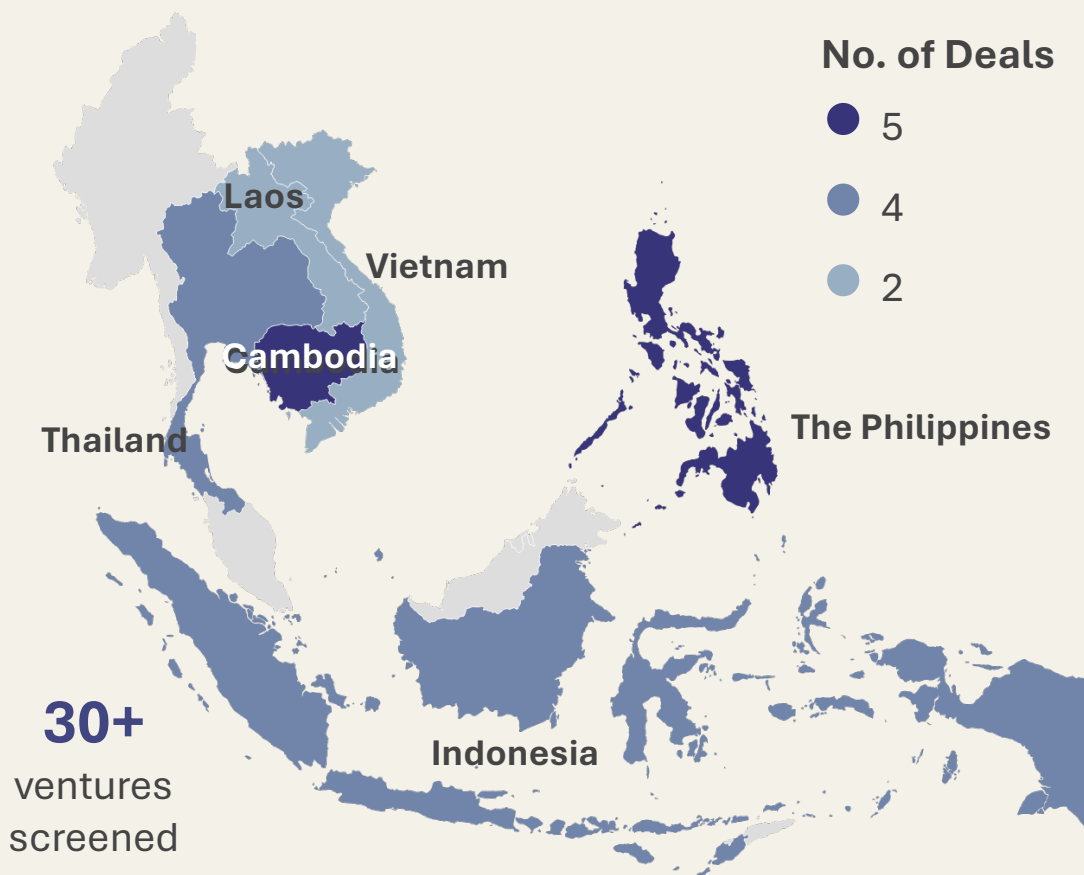
Term loans (40%)

- Term loans with principal grace period
- Fixed repayment profile, where RBF is not suited
- 3 to 5-year tenor in the model

Panra focuses on Southeast Asian markets with both high climate exposure and strong agricultural potential



The Philippines will serve as the initial pilot market, with expansion into selected SEA countries based on these criteria and demonstrated pipeline readiness.



Panra prioritizes these SEA countries based on 5 criteria:

1. **Climate exposure** → severity of agriculture-relevant hazards such as typhoons, drought, flooding and salinity.
2. **Adaptation readiness & pipeline maturity** → availability of investable agribusiness models that provide adaptation solutions to farmers.
3. **Economic importance of climate-sensitive value chains** → country has dependence on target crops, smallholder livelihoods and agricultural supply chains.
4. **Potential for ecosystem co-benefits** → opportunities to improve soil, water, biodiversity and landscape resilience alongside supply chains climate resilience.
5. **Regulatory & market execution** → considers political and regulatory stability, foreign lending rules, FX constraints, legal enforceability.

Regional enabling environment: The ASEAN Taxonomy provides a common framework for identifying adaptation-aligned activities, with V4 adding criteria for agriculture, forestry and fishing to support Panra in screening across markets despite different levels of country readiness (ASEAN Taxonomy Board, 2025).

Panra has identified a strong pipeline across SEA

PIPELINE DETAILS



Pipeline: 30+ ventures screened across Southeast Asia, pilot in the Philippines



Sector Focus: Focus on high-value export commodities (e.g. cacao, rice, coffee, bananas)



Target investees: Growth-stage agribusinesses



Capital Required: >USD 60M total demand identified



Ticket size: USD 1-5M (average USD 2.5M)



Partnerships: Deal sourcing driven by a Direct and Network Origination strategy

Selected pipeline opportunities identified by Panra:

Ventures	Value Chain	Description	\$ Required
Agribusiness 1 Philippines	Cacao, Banana	As an offtaker, a processor, and an input supplier, the company works with 20,000 cacao farmers adopting resilient practices and building inclusive supply chains.	USD 1-2M
Agribusiness 2 Lao PDR	Coffee, Agroforestry	As an offtaker and processor, the company buys coffee grown under shade-grown agroforestry systems that protect forest buffer zones and improve soil and water resilience, converting former monoculture plots and paying certified premiums that raise smallholder farmer incomes.	USD 1-2M

A three-pillar framework to assess agribusinesses

Panra Fund will prioritize growth-stage agribusinesses that combine strong repayment capacity, measurable resilience impact, strong relationships with smallholder farmers, and the ability to strengthen their supply chains.

WEIGHTED PIPELINE CRITERIA

40%

FINANCIAL

Growth-stage agribusinesses that are RBF suitable and have payment capacity.

Example criteria:

- **Financial Viability & RBF Suitability**
≥20% gross profit margin
≥2 years verifiable revenue history
clear revenue traceability (digital/auditable)
- **Payment Capacity (DSCR):** 1.25:1

40%

ENVIRONMENTAL & SOCIAL

Agribusiness operations employ climate-resilient practices, smallholder and gender inclusion, and E&S safeguards.

Example criteria:

- **Climate Adaptation & Resilience Integration**
≥30% of operations using climate-resilient practices (e.g., drought-resistant crops, water-efficient irrigation); climate risk assessment conducted
- **Smallholder & Gender Inclusion**
≥40% of sourced produce from smallholder farmers; ≥30% women in farmer-base
- **E&S Safeguards:** Minimum: A documented ESMS with clear policies, procedures, and defined responsibilities for managing E&S risks.

20%

MARKET-BUILDING

Potential to turn stable buyer relationships and farmer networks into lasting market systems that reduce risk and build resilience for offtakers, farmers, and other supply chain partners.

Example criteria:

- **Value Chain integration and offtake security:** Measures whether the business is embedded in stable, scalable market channels rather than relying on spot markets.
≥ **50%** of output covered by formal offtake agreements with at least **2 independent buyers** (to avoid single-buyer dependency).
- **Smallholder Inclusion** – Extent of smallholder integration into value chains (markets, inputs, services) for systemic impact. Minimum: ≥500 smallholders + ≥10% YoY growth

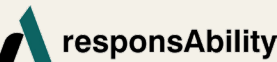
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Panra differentiates through RBF and monetized RAs

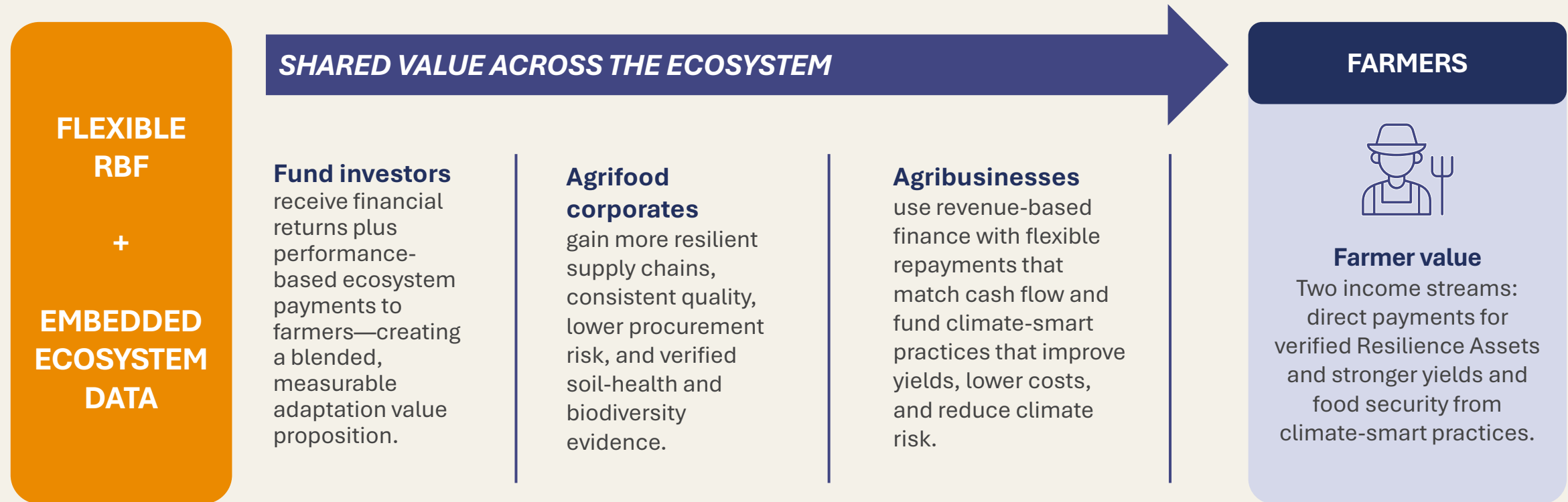
Panra combines flexible repayment structures with monetized resilience outcomes, differentiating it from traditional agri-debt vehicles.

Instruments	Overview	Type of financing	Revenue- based financing	Impact / Nature-linked Mechanism
 adaptation asia (SEA)	Flexible debt fund for smallholder-linked agribusinesses.	- Revenue-based Debt - Traditional Debt	 Revenue-based	 Resilience assets
 Root Capital (SEA, LATAM, Sub-Saharan Africa)	Revolving loan portfolio providing working capital and trade finance to smallholder-linked agri SMEs.	- Impact-linked Debt - Traditional Debt	 Flexible payments	 Impact-linked incentives
 GROW BEYOND (SEA)	Blended loan facility providing long-tenure debt with flexible repayment periods to agri SMEs.	Traditional Debt (Flexible)	 Flexible payments	 N/A
 mce SOCIAL CAPITAL (LATAM, Sub-Saharan Africa)	Blended debt fund financing agri SMEs and value chain enterprises.	Traditional Debt	 N/A	 N/A
 responsAbility (APAC, LATAM, Africa)	Private debt fund providing long-term loans to agri SMEs across food value chains.	Traditional Debt	 N/A	 N/A

Note: comparable instruments pertain to specific funds within the organizations listed above

Converging flexible finance, ecosystem assets, and digital verification

Panra creates value across the agricultural ecosystem by pairing flexible finance with verified ecological improvements—supporting farmer resilience, investor returns, and more stable supply chains.

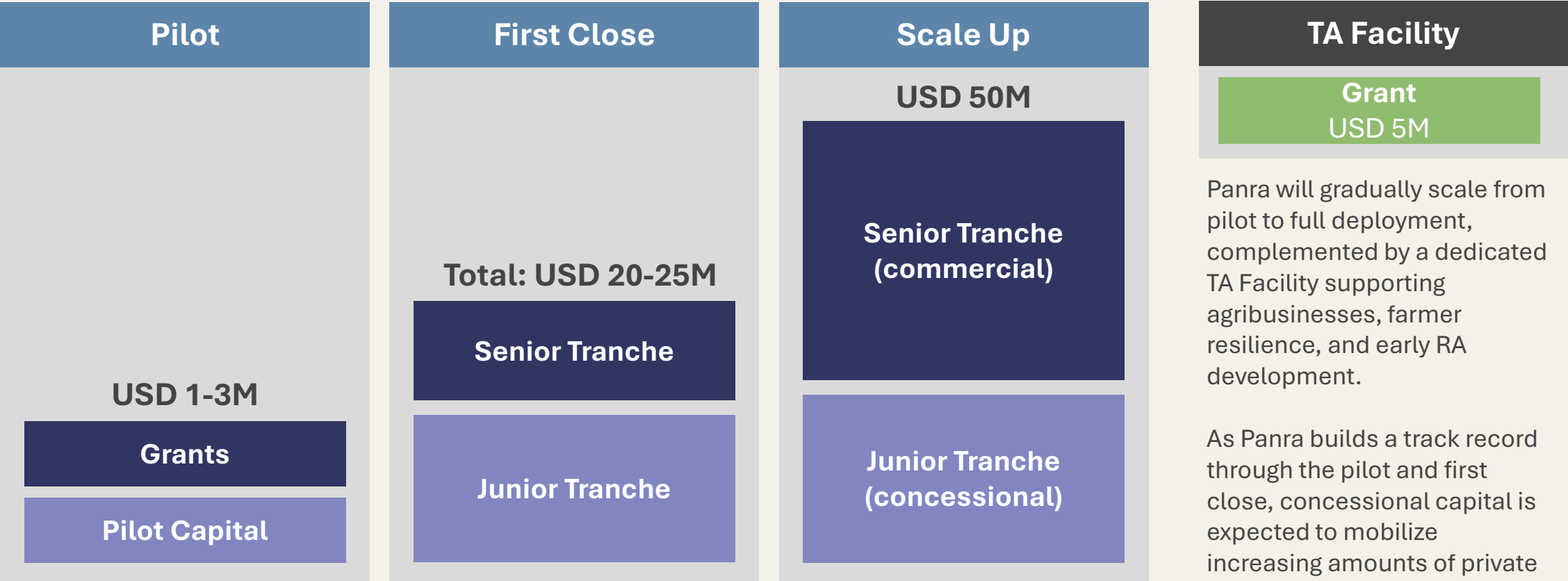


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Targeting a USD 50M capital stack and a USD 5M TA facility



Panra will gradually scale from pilot to full deployment, complemented by a dedicated TA Facility supporting agribusinesses, farmer resilience, and early RA development.

As Panra builds a track record through the pilot and first close, concessional capital is expected to mobilize increasing amounts of private senior capital at scale.

Leverage ratio (commercial / concessional capital) at Scale-Up is **2x**

Panra Fund will mitigate key risks through targeted financial and non-financial measures

Risk	Description of Risk	Non-Financial Solution	Financial Solution
Credit / Repayment Impact: High Likelihood: Medium	Agribusiness underperformance, commodity volatility, or climate shocks may reduce RBF / term-loan repayments, affecting investor distributions and capital recycling.	Detailed borrower underwriting; climate-risk screening; cash-flow monitoring; TA for Agribusiness on climate-smart production and business resilience.	Revenue-linked repayments; grace periods; repayment caps; portfolio diversification across different commodities and value chain.
Physical Impact: High Likelihood: Medium	Climate events (e.g., typhoons, floods, droughts and heat) may weaken agribusiness repayment capacity, increasing credit losses across the RBF / term-loan portfolio.	Climate-risk screening on sector and country; resilient production and infrastructure standards; diversification of crops / sourcing regions.	TA resilience interventions using parametric insurance to strengthen farmer resilience.
Market Impact: Medium Likelihood: Medium	Demand for Panra's innovative RBF financing may be lower than expected, slowing deployment of the core lending strategy; separately, corporate demand for RAs may take time to develop.	Borrower market testing; education on RBF mechanics; pilot transactions to test viability of innovative loans; corporate buyer engagement and RA price discovery.	Offer both RBF and term loans to broaden borrower fit; fund returns also remain independent of RA revenues.
Execution Impact: High Likelihood: Low	Delays in origination, underwriting, deployment, or portfolio management may reduce capital deployment and returns.	Strong origination pipeline through third party partnerships; phased rollout; clear investment manual; dedicated portfolio monitoring; experienced local partners.	Flexible drawdown; commitment fees on delayed undrawn facilities; milestone-based TA disbursement; contingency reserve for implementation delays.
Regulatory Impact: Medium Likelihood: Medium	Changes in lending, agricultural, land-use, or financial regulation may delay or constrain deployment of RBF / term loans across target markets.	Regulatory and compliance monitoring; seek advice from legal counsel; policy engagement; country diversification.	Conservative underwriting assumptions; contractual protections; consider political-risk protection if required.

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Fund economics demonstrate long-term financial sustainability

FUND KEY METRICS

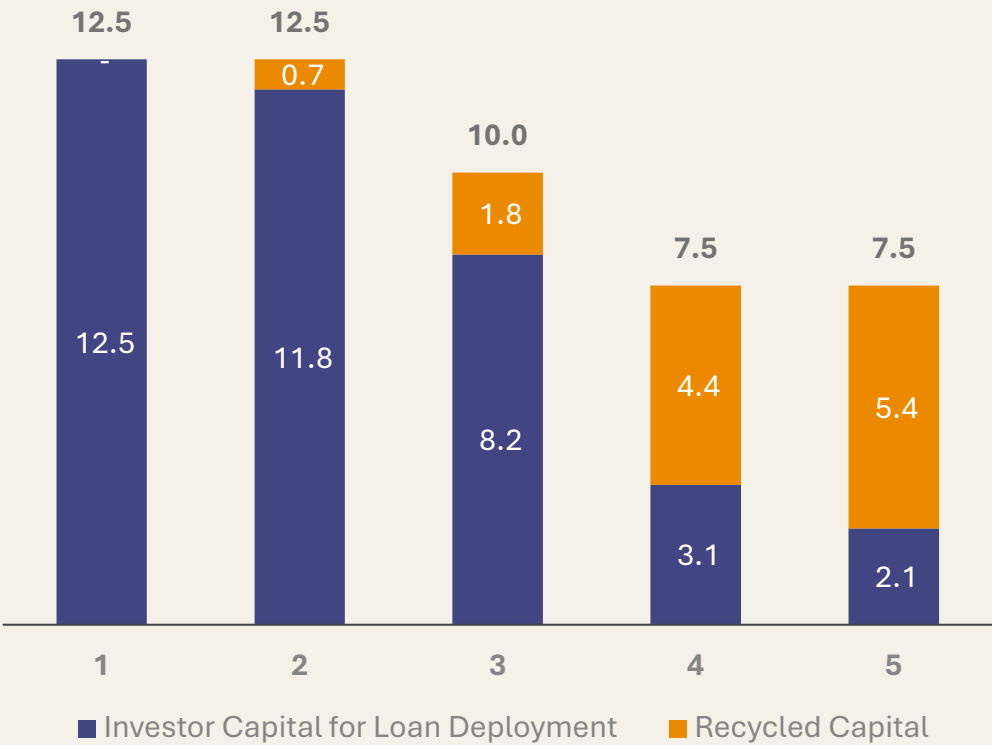
Fund Size	USD 50 Million
Ticket Size	USD 2.5 Million (average)
Number of Loans	20 borrowers in portfolio
Fund Life	10-12 years
Indicative Investor IRR	8% - 12%
Agribusiness Payback Period	3-5 years (term-loan) - Variable (revenue-based finance)
Capital Recycling	Principal repayments recycled during the investment period
Revenue-based Finance	- Fixed payments annually - Repayments as a % of gross revenue - Repayments continue until a progressive multiple cap is reached

PORTFOLIO MIX

Term Loan		US\$ 20 M (40%)
Revenue-based Finance		US\$ 30 M (60%)

ANNUAL LOAN DEPLOYMENT BY FUNDING SOURCE

Over time, the fund becomes increasingly self-sustaining as recycled principal repayments reduce reliance on new investor capital calls for loan disbursements.



Note: The chart shows capital used for loan deployment only; total investor capital called also funds operating expenses over the fund life.

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Panra targets measurable resilience outcomes with strong safeguards

Panra Fund uses flexible financing and targeted resilience interventions to convert investment into measurable adaptation outcomes for agribusinesses, farmers, and landscapes.

CATALYZING SYSTEMIC CLIMATE RESILIENCE

Reaching 1.8 million smallholder farmers through Panra-financed agribusinesses across Southeast Asia

DELIVERING MEASURABLE ENVIRONMENTAL AND SOCIAL OUTCOMES

Through regenerative practices, farmer-level resilience interventions and verified Resilience Assets

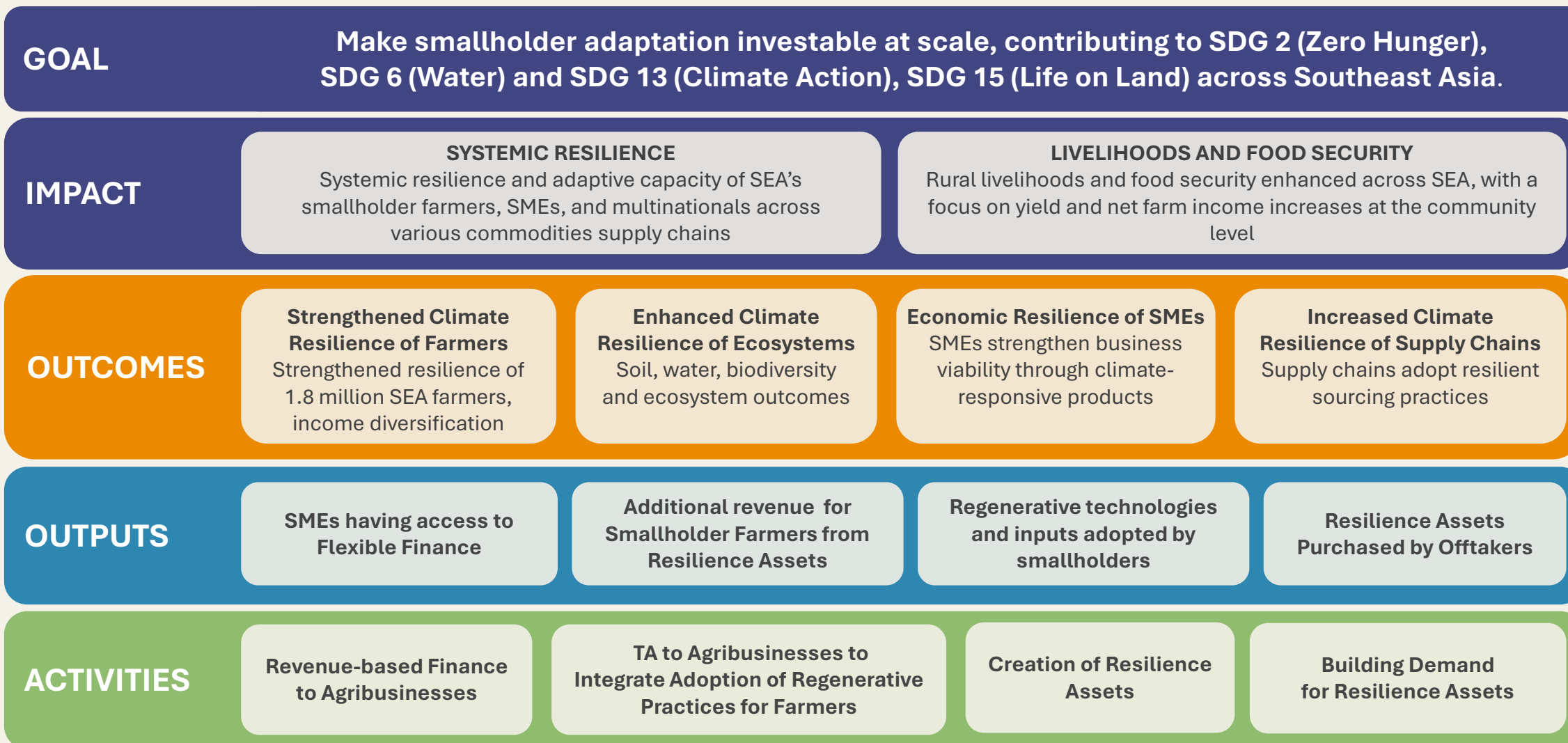
STRENGTHENS AGRIBUSINESSES & SUPPLY CHAINS

Flexible finance supports SME resilience and more stable climate-resilient agricultural supply chains.

PER USD 1M INVESTED, PANRA IS EXPECTED TO	
70k Ha of land adopting regenerative practices	40k Ha of land with improved soil quality
34k Ha of land with increased off-season ground cover	36k Smallholder farmers reached

KEY E&S RISK AND SAFEGUARDS	
 Physical Climate Hazard Climate-hazard screening and resilient production practices	 Natural Resource Use & Biodiversity Screening for water, land-use and biodiversity risks; promoting regenerative practices
 Occupational Health & Safety Worker safety screening, PPE, training, and incident procedures	 Social Inclusion Inclusive participation requirements, gender-responsive practices, and monitoring

Building resilience and improving livelihoods



Panra targets measurable E&S outcomes across its portfolio

Indicative projections based on current pipeline assumptions; calculations are simplified and will be refined as portfolio and MRV data become available.

Env.
KPI

3.5

ha

(million)

KPI 1: Hectares of land adopting regenerative practices

Measures the scale of regenerative practice adoption across financed value chains.

(Based on 5.0M network hectares × 70% adoption; adjusted over time for adoption lag and persistence)

Env.
KPI

1.7

ha

(million)

KPI 2: Hectares of land with increased off-season ground cover

Measures observable increases in ground cover from practices such as cover crops, residue retention and agroforestry. Higher off-season ground cover is a proxy for adaptation because it helps reduce soil erosion, retain moisture and moderate soil temperature, improving resilience to drought and heavy rainfall.

(Derived from KPI 1 × 65% relevant practice mix × 75% satellite detectability)

Env.
KPI

2.0

ha

(million)

KPI 3: Hectares of land with improved soil quality

Measures the share of regenerative hectares expected to show improvements in soil condition. Improved soil quality will increase water retention, reducing erosion and helping crops withstand drought and extreme rainfall.

(Derived from KPI 1 × 70% measurable soil improvement × 80% MRV coverage)

Social
KPI

1.8

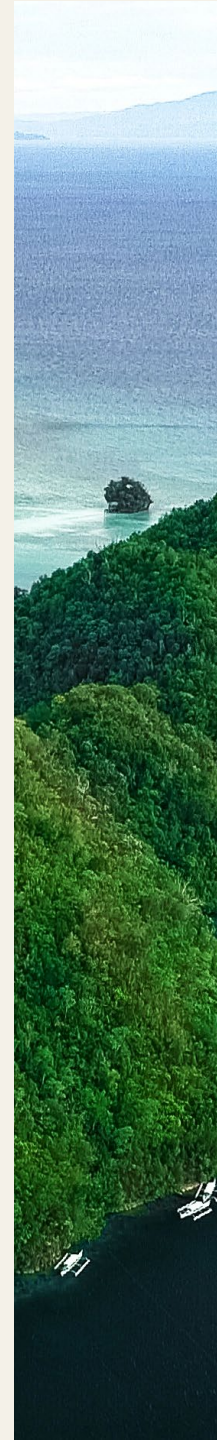
farmers

(million)

KPI 4: Smallholder farmers reached

Measures the number of smallholder farmers reached through Panra-financed agribusinesses that engage farmers as input providers, buyers/offtakers of produce, or both.

(Based on the current investee pipeline and farmer networks reached over fund life)



Panra applies social and governance safeguards across investees

Panra Fund adopts an Environmental and Social Management System (ESMS) aligned with international frameworks to manage material E&S risks across its investment portfolio.

Risk	Description	Panra Fund Mitigation Strategies
Occupational Health & Safety (OHS)	Unsafe working conditions may lead to worker injury, operational disruption, legal liabilities and reputational risk for investees, potentially weakening borrower performance and Panra's portfolio outcomes.	• Complete OHS due diligence and make legal compliance a condition for investment; • Require investees to establish OHS systems, Personal Protective Equipment, worker training, incident investigation, and response procedures.
Discrimination / Exclusion	Marginalized groups may face unequal access to financing, TA or other project benefits, undermining Panra's inclusion objectives and creating social and reputational risks.	• Map marginalized groups where possible and embed inclusivity requirements in credit agreements; • Apply Gender, Equality, Diversity, and Social Inclusion training, a Gender Action Plan, and disaggregated participation monitoring.
Corruption & Money Laundering	Weak financial controls or misconduct could lead to misuse of funds, legal and reputational exposure, and reduced transparency across Panra's investees and payment flows.	• Perform KYC/AML due diligence and background checks; • maintain transparent, auditable financial tracking and zero-tolerance contractual termination rights.

Panra also manages environmental risks across climate, water, land and biodiversity

Risk	Description	Panra Fund Mitigation Strategies
Physical Climate Hazard	Typhoons, flooding, drought and extreme heat may disrupt production and weaken borrower repayment capacity.	• Screen SMEs for climate exposure and exclude investments that increase vulnerability of farmers and ecosystems; • Provide finance to agribusinesses that promote climate-smart agriculture and provide parametric insurance for farmers through revenue from RAs.
Biodiversity	Agribusiness activities may contribute to habitat degradation and biodiversity loss.	• Limit eligibility to SMEs advancing regenerative practices; • Provide TA support to investees operating in/near critical habitats to avoid and reduce negative impacts through robust ESMS; • Promote agroforestry, intercropping, and Integrated Pest Management; • Monitor soil health as a foundation for biodiversity through TerrAvant.
Water Pollution	Poor management of fertilizers, pesticides and agricultural runoff may contaminate local water sources.	• Exclude SMEs using or commercializing hazardous pesticides or with material pollution risks; • train farmers on precision inputs and runoff management; require corrective action plans for processors.
Water Overuse & Scarcity	High water demand may reduce local availability and disrupt production.	• Test crop water intensity against local availability and conduct site-level screening
Deforestation	Expansion of agricultural production may contribute to deforestation or conversion of sensitive ecosystems.	• Exclude investees linked to deforestation or conversion of sensitive ecosystems; require corrective measures where breaches are identified. • Monitor land-cover change through TerrAvant

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Panra's pilot strategy: validating Revenue-Based Finance and Resilience Assets

Panra will initially deploy pilots in the target geographies to help validate the execution of RBF transactions and establish the RA measurement methodology. This approach presents first-close investors with a proven model and builds the team's track record.

Pilot Archetype: Agribusiness 1, Philippines

- Agribusiness 1 as pilot counterparty for Panra's first RBF and Resilience Assets transaction.
- 20,000+ smallholder farmers to strengthen cacao and banana supply chains, scaling regenerative farming.

Pilot Scope & Innovation Validation

- Finance the scale-up of Agribusiness 1's agroforestry work into new regions
- Integrate new Resilience Assets focused on cacao and banana to complement existing ecosystem monitoring
- Demonstrate that RBF and Resilience Assets can function effectively in a real-world supply chain

Milestones Unlocked (Proof Points for First Close)

- **Model Validation:** RBF and TerrAvant monitoring validated.
- **Asset Creation:** First Resilience Asset (RA) issued.
- **Structure:** SPV structure and legal documents established.
- **Execution:** First pilot-stage transaction(s) deployed.

Pilot Company	Agribusiness 1
Capital Required	USD 1–2M
Vehicle type	RBF with Resilience Assets
Geography	Davao, Philippines
Expected Pilot	Early 2027 · 18 months
Offtaker	Offtaker 1
RAs Proceeds	60%+ to smallholders

Progressing from pilot to full fund deployment and regional scale-up

Pilot preparation and validation through 2028, with full fund deployment and regional expansion to follow.

	2026			2027				2028				...	2031+			
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q		1Q	2Q	3Q	4Q
1. Pre-Pilot																
Accelerator and incubation stage																
Legal/ESMS Design																
Pilot SPV setup																
Pilot Legal Docs																
Deployment of working capital and TA delivery																
2. Pilot																
Pilot Deployment																
RBF Validation																
RA Market Building and Development																
Pilot Monitoring & Evaluation																
3. First Close																
Fundraising for First Close (USD 20-25M)																
Regional Pipeline Development																
Technology and Team Expansion																
4. Post Pilot																
Legal Fund Establishment																
Mobilization and full deployment (USD 50M)																
Regional Scaling																
Evaluation and Replication Planning																

Panra addresses key implementation risks across fundraising, deployment and execution

Risk	Panra's Mitigation Strategy
Fundraising risk Inability to secure anchor investor commitments on target timeline	Diversified investor pipeline (100+ relationships); concessional junior tranche and guarantee to de-risk senior tranche; pilot transaction as tangible validation; The Lab, Frankfurt School and SIFI validation and networks; phased close strategy; a strong pipeline of four engaged first-close investors.
Regulatory and legal risk SPV/ VCC structuring, legal classification of RBF and RAs (Operationalization)	Panra is already engaged with specialist Singapore fund counsel, fund administrators and established fund managers, enabling a staged pathway to scale; sequence country rollout by regulatory clarity; strong regional partnerships with MDBs and Governments.
Credit risk Climate shocks, price volatility or borrower failure in a climate-exposed portfolio (Scale)	Default modelled and stress-tested in the fund model; RBF flexibility; 35% junior tranche to leverage commercial capital and absorb losses; careful due diligence of revenue- generating businesses; diversification across SEA countries.
Resilience Asset market maturity Insufficient offtaker demand (Scale)	RA revenue is not a core repayment mechanism, and it does not affect the fund mechanics; planned offtaker engagement with corporates via TerrAvant's specialist team.
Key person and team capacity Dependence on two unsalaried Partners; delayed team expansion constrains execution (Operationalization)	Grant funding is a critical factor in the initial success of the Fund - core team salaries are critical - and would accelerate third Partner and Investment Manager hires; a ten-member Senior Advisory Panel and regional non-executive directors provide wider network strength.

Targeting a USD 50 million adaptation fund

USD 46M of investor capital from Senior and Junior investors are expected to support USD 50M of fund deployment through USD 4M capital recycling, alongside a separate USD 5M TA Facility.

**Senior
(65%)**

USD 30 Million

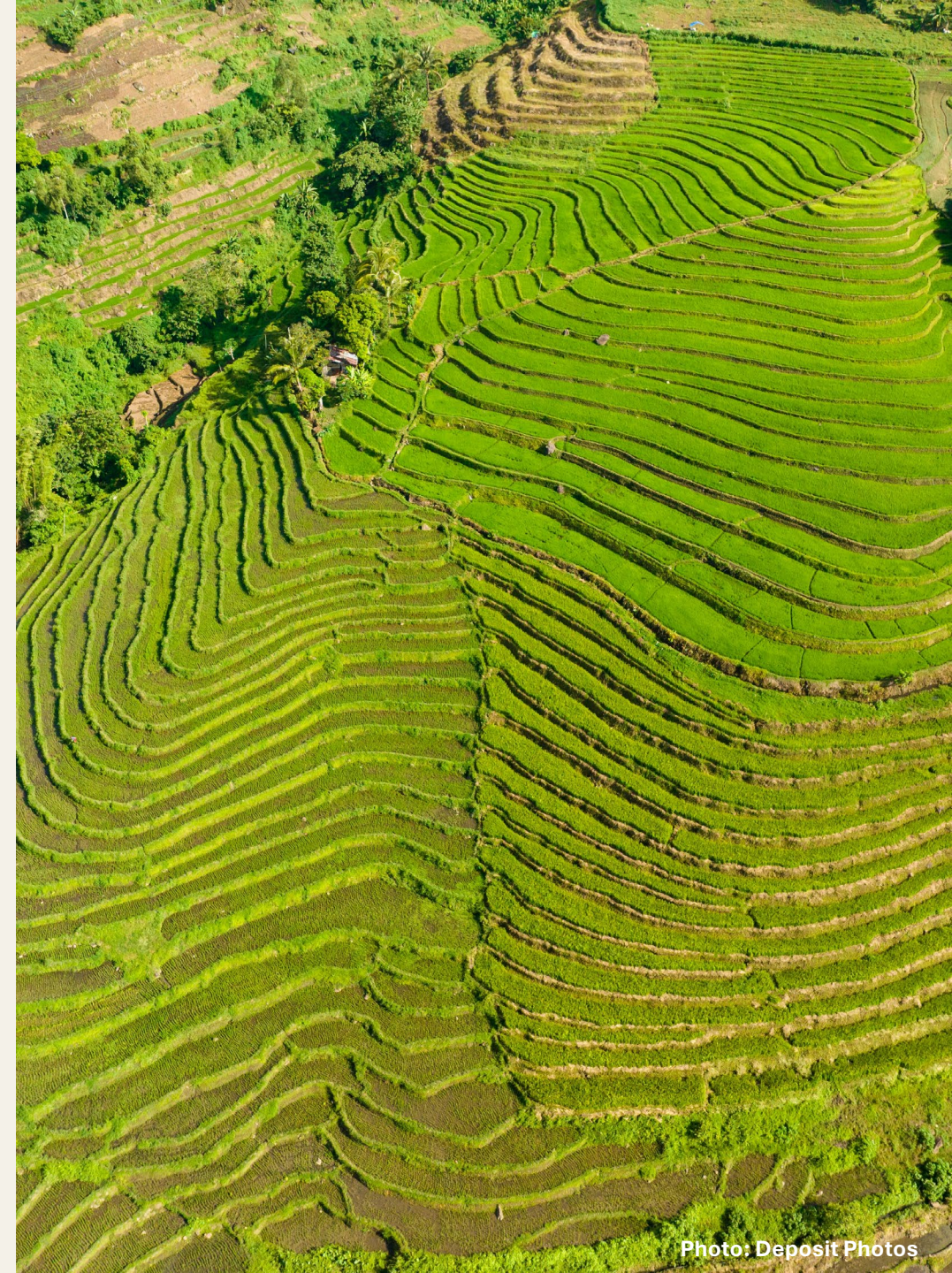
**Junior
(35%)**

USD 16 Million

**Technical
Assistance**

USD 5 Million

USD 51 MILLION
TOTAL CAPITAL TO BE RAISED



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Catalyzing a self-sustaining Resilience Asset (RA) market

The TA fund will finance early resilience interventions during the pilot phase, transitioning over time to corporate offtake commitments that will fund interventions



TerrAvant manages Resilience Assets from measurement to monetization

A Resilience Asset is an instrument that turns verified resilience improvements into an outcome that corporates can pay for to support more resilient agricultural systems.

TerrAvant provides the operating infrastructure behind the Resilience Asset mechanism, connecting farmer-level interventions with measurement, verification, and corporate demand.

TerrAvant's role includes:

- **Aggregating climate-resilient interventions** across dispersed farmers into a defined programme.
- **Coordinating delivery and MRV** through agribusinesses and specialist partners.
- **Packaging verified outcomes** into a standardized Resilience Asset that a corporate can purchase to strengthen their supply chain.

HOW PURCHASING RAs DIFFERS FROM DIRECT SUPPLIER FUNDING

01

Payment for verified outcomes

Direct supplier funding usually pays for inputs or activities. Purchasing RAs pays for measured and verified resilience outcomes.

02

Independent coordination and MRV

TerrAvant will coordinate the delivery and MRV, reducing implementation burden on corporates and improving consistency of interventions across many farmers.

03

Clearer value for buyers and investors

RAs aggregate dispersed interventions into a standardized, auditable package of outcomes that can be purchased across multiple supply chains.

