

Nusantara Resilience Capital SPV

A dual-layer financing solution enabling immediate disaster response and rapid economic resiliency



Problem and Vulnerability

Sumatra, the world's sixth-largest island, sits at the center of Southeast Asia's most critical trade routes, where public infrastructure underpins both economic activity and daily life for over 58 million people. Nearly half of its population resides in low-lying river basins and coastal zones highly exposed to flood risk, as the island lies within one of the region's most hydrologically volatile monsoon systems.

Although Sumatra supports a significant share of Indonesia's economy—anchored by land-use intensive sectors such as palm oil, mining, and agriculture—decades of deforestation have intensified downstream flood severity, amplifying socio-economic vulnerability.

In late 2025, extreme monsoon rainfall triggered widespread flooding that disrupted infrastructure, severed supply chains, and isolated communities across the island. However, the **primary constraint in recovery was the delay in funding deployment**.

Jasindo, the state-owned insurer covering nearly \$400 million of public infrastructure, operates under indemnity-based structure requiring claim verification across more than 50 co-insurers. As a result, only 37% of \$17 million in claims had been paid five months after the disaster, significantly delaying reconstruction.

As climate-driven flood severity accelerates, this structural mismatch between **when disasters occur** and **when capital becomes available** amplifies **long-term economic damage**, placing increasing pressure on insurers, governments, and vulnerable communities.

Investment Thesis

Nusantara Resilience Capital addresses a fundamental failure in disaster financing: the inability to deliver capital when it is most needed. The structure resolves two distinct timing bottlenecks in disaster response. A parametric catastrophe bond, funded by reinsurance premiums, provides large-scale capital within 14 days—reducing reconstruction delays from up to 12 months (~26x faster)—while a community-funded resilience pool, supported by risk contributors, delivers immediate, day-zero liquidity for emergency needs, eliminating typical public budget delays of 2–3 weeks (~21x faster).

1. Dual-layer liquidity architecture

Delivers continuous funding across the disaster timeline by combining immediate emergency liquidity and rapid reconstruction capital, reducing response time from weeks to zero days and accelerating full recovery funding by over 25x compared to traditional systems.

2. Parametric sovereign risk transfer

Provides Jasindo with fully collateralized parametric protection, replacing loss-based verification (indemnity) with objective rainfall triggers, and reducing payout timelines from up to 12 months to under 14 days.

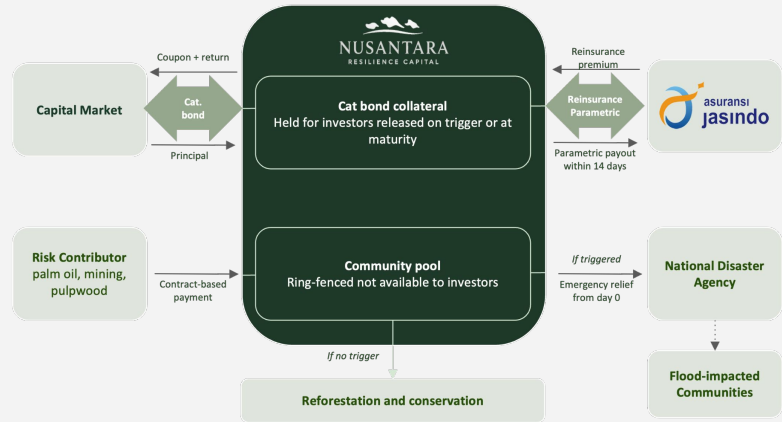
3. Risk contributor integration

Embeds enforceable resilience contributions from high-impact sectors (i.e., palm oil, mining, and pulpwood), internalizing environmental externalities while strengthening funding stability.

4. Circular risk-to-resilience mechanism

Recycles non-trigger margins into reforestation and upstream flood mitigation projects, linking risk transfer with long-term risk reduction and improving underlying risk quality over time.

Operating Structure

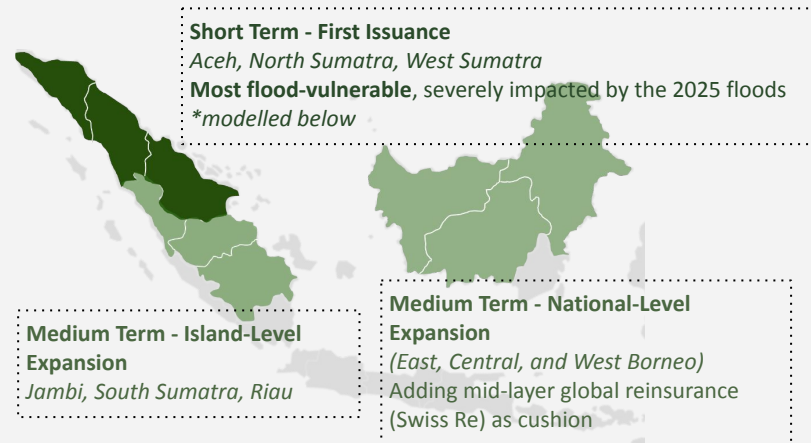


Key Stakeholders



Scalability and Replicability

Geographic expansion is anchored in shared structural risk drivers such as forest-rich landscape, deforestation driver, and community & biodiversity vulnerability. Enabling replication across forest-rich emerging markets.



Fund Details of Phase 1

Fund Structure and Pricing		SENIOR TRANCHE
Fund Size (Total Bond)	US\$ 200m	Investor Notes
Investor Notes	US\$ 150m	US\$ 150m
Tenor	3 years	FIRST-LOSS
Reference Rate (SOFR)	3.67%	MDB Tranche
Risk Spread	7.33%	US\$ 50m
Gross Coupon	11.00%	
(-) Expected Loss	(2.0%)	
Net Expected Return	9.00%	
Reinsurance Premium (Jasindo)	8.0% / \$16m p.a.	
Risk-Return Multiple	3.67x	

Reins. Premium = \$200m × 8% = \$ 16m/yr, aligned with Jasindo premium revenue & state budget allocation, EL 2.00% - Probability-weighted annual investor loss after MDB buffer, RR Multiple 3.67x - Spread per unit of expected loss. Cat bond market typical range: 2–4x, SPV Mgmt Fees. 1%

Tranche and Trigger Design

Tier	Rainfall threshold	Principal Write-down	Payout	Est. Damage (Upper Bound)
I	>200 mm/24h	25%	\$ 50m	\$200m
II	>250 mm/24h	50%	\$ 100m	\$300m
III	>300 mm/24h	100%	\$ 200m	\$400m

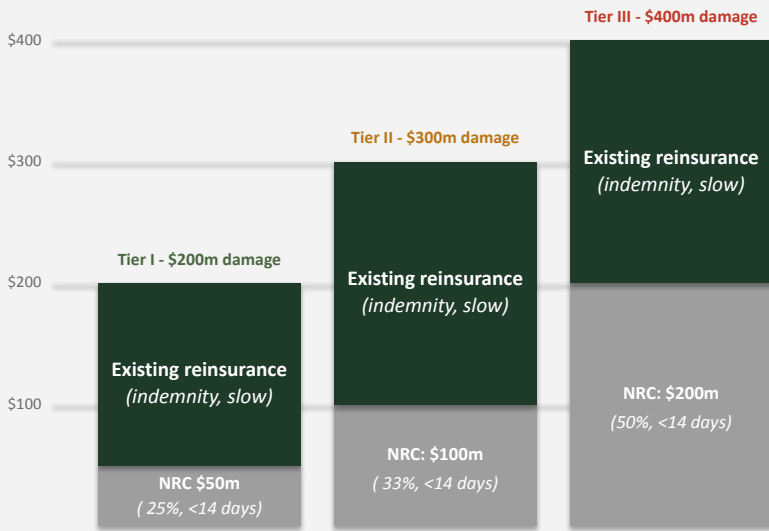
Investor Return and Cash Flow (No trigger and Tier I in Any Year)

3-YEAR ROI +33.0% <i>Total return</i>	ANNUALIZED IRR +11% <i>Per year</i>	NET P&L +\$49.5m <i>On \$150m invested</i>
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*Investor cash flow, ROI, and IRR are identical in No-Trigger and Tier I scenarios | Upon trigger, principal is written down by the applicable % (standard cat bond mechanic) | MDB coupon paid only in no-trigger years.

Tier-by-Tier Damage vs. NRC Coverage

Nov 2025 Sumatra floods (232mm/24hr wgt avg) = Tier I (1-in-25 yr)

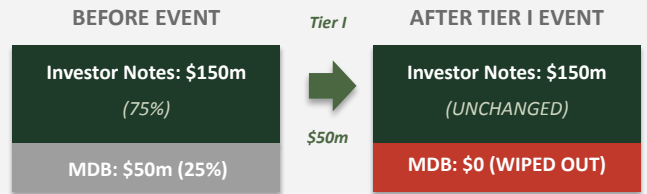


Damage estimates scale progressively with tier severity (\$200m → \$300m → \$400m), reflecting how catastrophic damage accelerates non-linearly above extreme thresholds due to cascading infrastructure failures. Actual damages-severity curves would be calibrated via Verisk AIR data during actual issuance.

Investor Profile

25%	MDB / DFI (First-Loss) World Bank, ADB, IFC
25%	Pension / Assets Managers ESG-mandated, SDG-aligned, climate adaptation with market-rate return
50%	ILS and Sovereign Wealth Fund Core buyer, seeks uncorrelated non-peak peril diversification

MDB Tranche Impact: How the First-Loss Buffer Works



Tier I trigger in any year (Y1, Y2, or Y3) produces identical investor outcome to the no-trigger scenario — payout to Jasindo fully absorbed by MDB first-loss tranche.

Risk Category	Risk	Mitigation	Impact	Likelihood
Market	Limited investor demand	Tranche diversification, MDB anchor investor, targeted ILS placement	●	●
	Sub-investment-grade rating	MDB subordinated tranche, early rating agency engagement	●	●
	FX mismatch (USD & EUR to IDR)	Currency matching, hedging, reserve buffer	●	●
Political	Political interest in contributive scheme	Public co-investment incentives	●	●
	Political turnover affecting enforcement	Multi-year binding contract	●	●
Operation	Contributor onboarding delays	Standardized contract, phased SOEs-first rollout	●	●
	Parametric trigger basis risk	BMKG-validated data, independent calculation agent	●	●
Use-of-Proceed	Issuance delays caused by multi-layered stakeholder coordination	Stakeholder mapping, identification, and engagement strategy	●	●
	Excess margin allocation constraints	Ring-fenced funding from risk contributor and grant	●	●

● High ● Moderate ● Low

Systemic Impact

Physical Infrastructure (Bridges, Telco)

- Average days to restore road connectivity to affected villages

Public Facilities (Medical, Evacuation)

- % of flood-affected medical centers remaining operational during disaster
- % of designated shelters activated and functional within 48 hrs of trigger
- Days to resume full government service delivery post-flood event

Utilities (Electricity, Water)

- % of households with electricity restored within 14 days of trigger payout
- % of affected households with safe water access restored within 7 days
- % reduction in waterborne disease incidence in covered areas year-on-year

Climate & Biodiversity (Forest, Endangered Species)

- Hectares of avoided deforestation annually
- tCO₂e sequestered per year from restored forest area
- Population trend index of supported megafauna species (Sumatran Tiger, Elephant, Rhino, Orangutan)

