nila.land

Concept
Risk & Roadmap
Legal
Financials
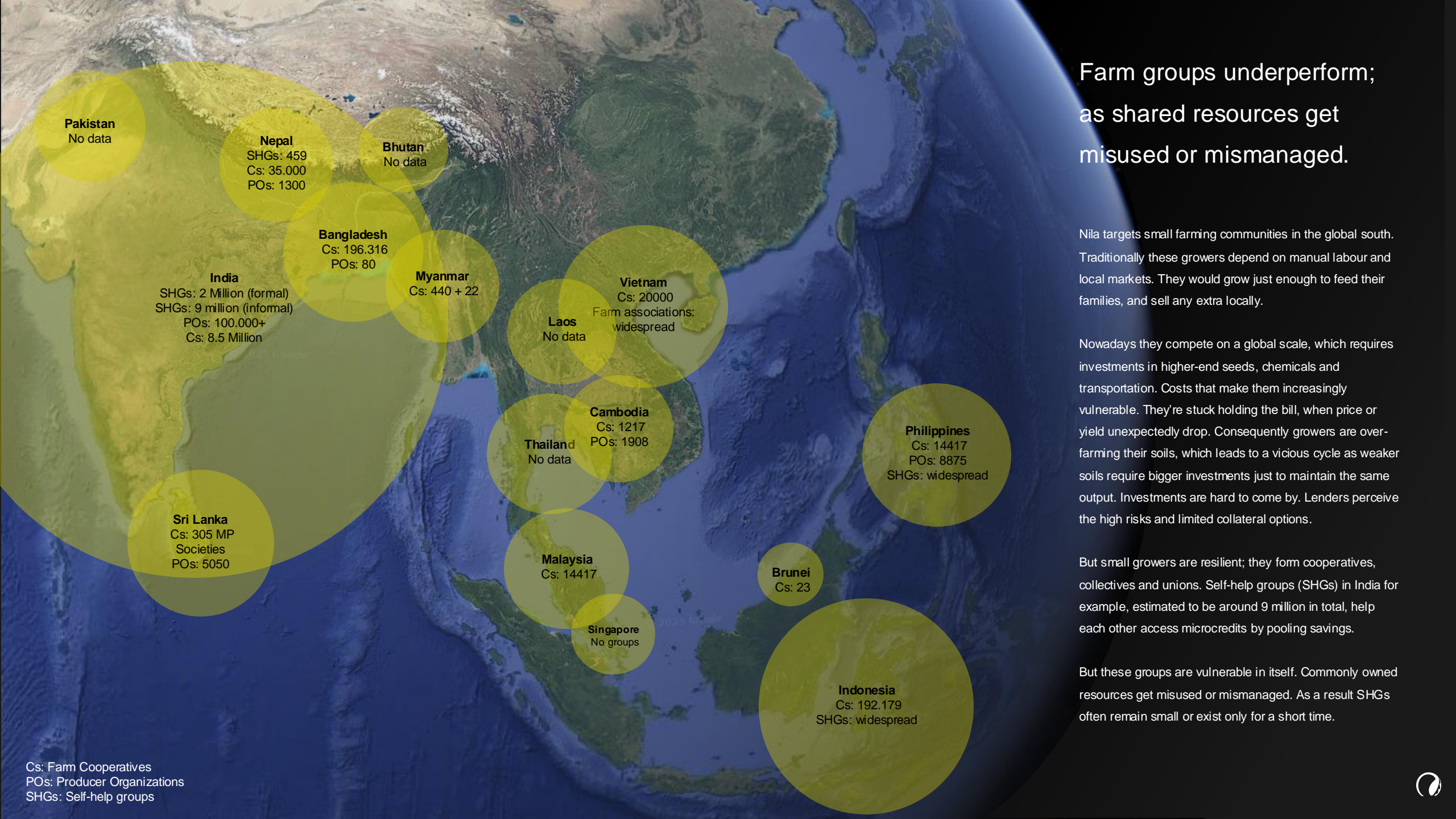
Nila lets small growers scale cooperatively; cutting through decades of entrenched procedures and unfavorable conditions.

Nila gives small growers their first liquid assets, enabling them to *trade value* in rules-based, open, digital, and data-driven systems.

Farm groups underperform; as shared resources get misused or mismanaged.

Nila targets small farming communities in the global south. Traditionally these growers depend on manual labour and local markets. They would grow just enough to feed their families, and sell any extra locally.

Nowadays they compete on a global scale, which requires investments in higher-end seeds, chemicals and transportation. Costs that make them increasingly vulnerable. They're stuck holding the bill, when price or yield unexpectedly drop. Consequently growers are over-farming their soils, which leads to a vicious cycle as weaker soils require bigger investments just to maintain the same output. Investments are hard to come by. Lenders perceive the high risks and limited collateral options.

But small growers are resilient; they form cooperatives, collectives and unions. Self-help groups (SHGs) in India for example, estimated to be around 9 million in total, help each other access microcredits by pooling savings.

But these groups are vulnerable in itself. Commonly owned resources get misused or mismanaged. As a result SHGs often remain small or exist only for a short time.

Pakistan
No data

Nepal
SHGs: 459
Cs: 35.000
POs: 1300

Bhutan
No data

Bangladesh
Cs: 196.316
POs: 80

India
SHGs: 2 Million (formal)
SHGs: 9 million (informal)
POs: 100.000+
Cs: 8.5 Million

Myanmar
Cs: 440 + 22

Vietnam
Cs: 20000
Farm associations:
widespread

Laos
No data

Cambodia
Cs: 1217
POs: 1908

Thailand
No data

Philippines
Cs: 14417
POs: 8875
SHGs: widespread

Sri Lanka
Cs: 305 MP
Societies
POs: 5050

Malaysia
Cs: 14417

Brunei
Cs: 23

Singapore
No groups

Indonesia
Cs: 192.179
SHGs: widespread

Cs: Farm Cooperatives
POs: Producer Organizations
SHGs: Self-help groups

Agricultural loans are super pricey mainly because farmers don't have enough liquid assets to offer as collateral.

		Formal Ag-lending USD BILLIONS (2024)	APY (%) **	Delinquencies	Regulated	Source	Informal Lending Share	Workforce (%)*	GDP (%)*
1	India	$ 274,38	9 to 25%	4.3%	Heavy	Institutional	Large	46	18
2	Sri Lanka	$ 0,34	9 to 14%	very high	Low	Foreign	Large	28	8
3	Pakistan	$ 4,53	0 to 7%	1.16%	Low	Institutional	Large	42	24
4	Bangladesh	$ 3,36	9% (capped)	8.7%	Low	Microfinance	Very large	38	11
5	Nepal	$ 4,13	5 to 6% (subsidized)	5.4%	Low	Commercial	Small	62	24
6	Bhutan	$ 2,69	9.5% (capped)	1.79%	Heavy	Institutional	Balanced	50	13
7	Myanmar	$ 1,80	25 to 100%	-	Low	Microfinance	Large	70	22
8	Laos	$ -	36% to 100%	high	Heavy	Microfinance	Very large	70	24
9	Vietnam	$ 33,10	4-8% (subsidized)	2.0%	Heavy	Institutional	Balanced	29	12
10	Cambodia	$ 8,00	18 to 30%+	high	Low	Commercial	Balanced	31	21
11	Thailand	$ 4,10	4-8% (subsidized)	1.97%	Heavy	Institutional	Small	32	9
12	Malaysia	$ 1,15	4-15%+ (subsidized)	low	Heavy	Institutional	Very small	11	7
13	Singapore	$ -	-	-	-	-	-	0	0
14	Indonesia	$ 34,31	6-15%+ (subsidized)	2.74%	Heavy	Institutional	Balanced	28	12
15	Philippines	$ -	9-15%	high	Low	Microfinance	Very large	22	9
16	Brunei	$ -	-	-	Very heavy	Gov. Scheme	-	0	0

* Share of agricultural sector
** We can savely assume that the low-end rates are available to big corporate farms, while small growers limited choice

Certification and documentation are crucial for market access, yet they are often too complicated and expensive for small growers.

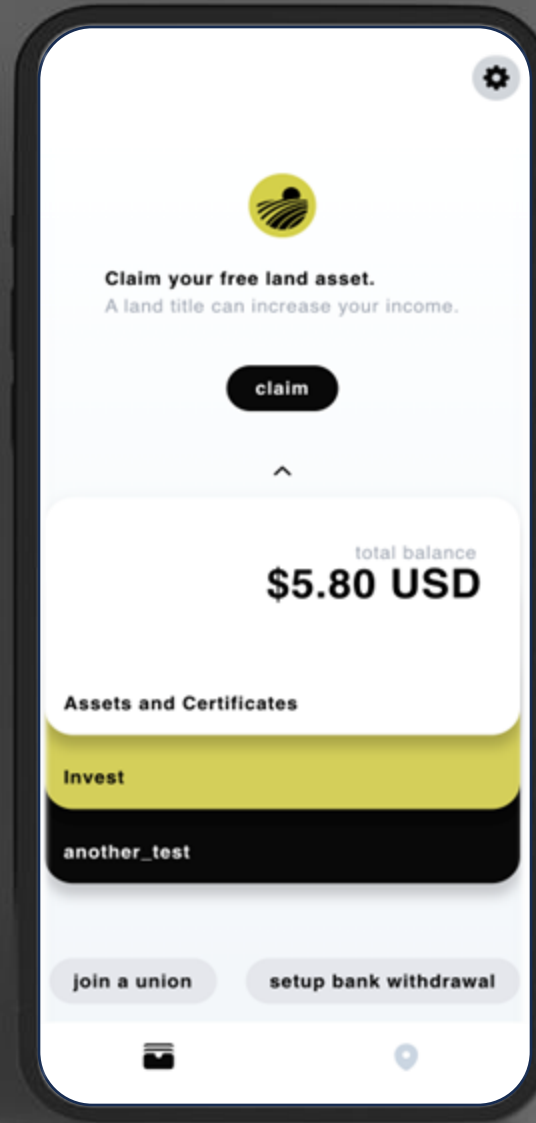| Information & Decision | → | Application & Preparation | → | Inspection & Audit | → | Certification Issuance | → | Documentation & Procedures | → | Logistics & Market Access | → | Sales & Revenue generation |

Barriers:

🚫 Documents submitted in English (India)

🚫 Extensive manual record-keeping

🚫 Technical Capacity Gaps

🚫 Volume and Quality requirements

🚫 Unequal bargaining power

🚫 National restrictions

Cost:

💰 Paperwork

💰 + Upfront cost to adopt / learn new practices

💰 ++ Inspection fees, additional remoteness charges

💰 +++ Potential rejection

💰 ++++ Renewal costs

💰 +++++ Fees for clearance, logistics, intermediary services

💰 ++++++ Price volatility and market risks

💰 +++++++ Delayed Payments

Nila App

one-click web3 wallet

Claim your free land asset.
A land title can increase your income.

claim

total balance
$5.80 USD

Assets and Certificates

Invest

another_test

join a union   setup bank withdrawal

All-in-one web app:

- Secured Keys (AES-256 encryption)

- Key recovery method

- Wallet with limited tokens

- Available in local currencies (INR)

- Gas subsidies

- No KYC (except when using on/off ramps)

- One-tab field bordering (high accuracy GPS required)

- Local tax compliant (India)

- Phone-Number Sign-Up (OTP)

- Simplified onboarding (WhatsApp link)

Nila tech stack

UNION CONTRACTS

Type: Contract Templates

Chains: EVM (Polygon)

LAND TITLES
ERC721

Type: non-transferable token (SBT)

Amount: unlimited

contract: 0x663DC13009D004aF3654a45f22A215De71633918

Chains: Polygon

Distribution: Verified owners of agricultural lands globally.

Metadata: Property outline and Farm name

NIN
ERC20

Type: multibasket stablecoin

Amount: unlimited

contract: 0x10D11eDD572ccb54D6D59f07521eA071Ed1C326E

Chains: Polygon

Distribution: Grants & offramp swaps

Objective 1: Launch 1000 union contracts

Leaders earn a fee for each commodity they trade.

progress: ▓▒▒▒▒▒▒▒▒▒▒▒▒▒ (1/1000)

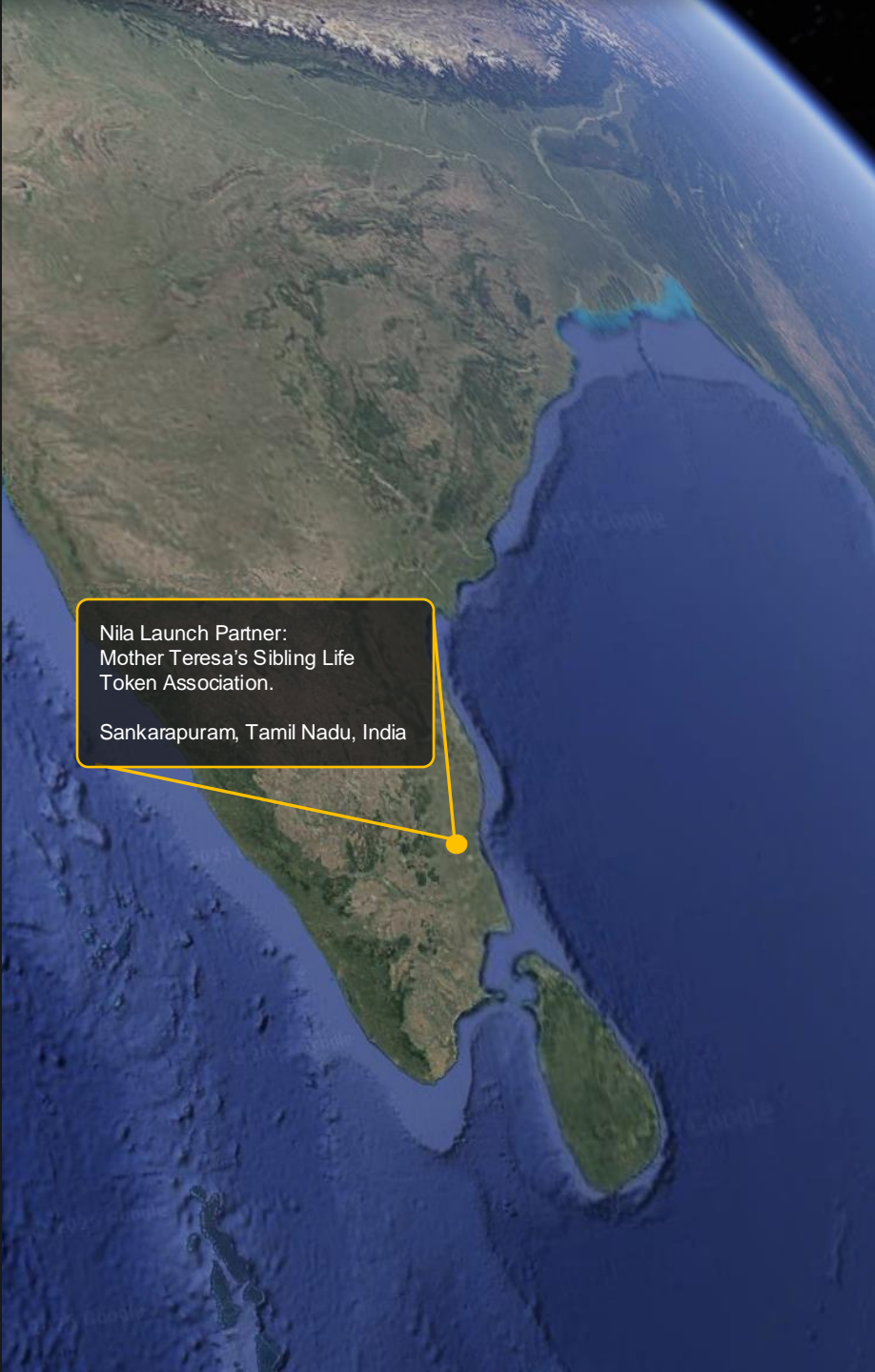## Objective 2: Mint 1000000 Land Titles

Union members with a title can claim grants and qualify for a loan.

progress: ▓▒▒▒▒▒▒▒▒▒▒▒▒▒ (900/1,000,000)

Objective 3: Lock USD$ 100 Million in Union Contracts

Collateral to qualify for loans, and earn interest.

progress: ▓▒▒▒▒▒▒▒▒▒▒▒▒▒ (300/100,000,000)

Nila Launch Partner:
Mother Teresa's Sibling Life
Token Association.

Sankarapuram, Tamil Nadu, India

Nila accreditations

	Certificate	Label	Measures	Availability	Application	Cost	Expiration	Proof (remotely observed, testimonials)
1	Nila grants		Loyalty	Limited	staking	free	Exponential decay	transaction records
2	Protected Origin (PDO)		Location	Crop spec.	none	1 Nila	1 year	land title location
3	Food quality		Freshness & Quality	Regional	form	1 Nila	1 year	harvest dates, phenological growth patterns and peer signatures
4	Sustainability		Environmentally conscious	Regional	form	5 Nila	3 monthly	soil health and moisture fluctuations, phenological growth patterns and peer signatures
5	Fair trade		Working conditions	Regional	form	1 Nila	1 year	peer signatures
6	Organic		Ecological conditions	Regional	form	10 Nila	3 monthly	soil health, biosphere indicators, neighbour data, peer signatures

* None of the credentials require field visits. All proof is collected using a mix of asset movement (on-chain), transaction patterns, remote sensing data and affidavits signed digitally in the Nila App.

Digital credit unions

We are building something real. It takes time.

Issues

| Misuse of funds by members or leaders | Depleted soils make many members non-eligible for a loan. | Limited input/offset possibilities | Members and leaders have no liquid assets | Groupthink lead to trust issues and favoritism. | Local contributions are not enough to cover costs. |

Solutions

| Freeze collateral if remote data does not show any activity | Union resource pools to stimulate regenerative practices; no-till, crop rotation, (green) manure. Use of alternative inputs. | | Grants & Discounts (early network incentives) | Fund selection is data dependend (cap rate & farm score) | Allow external stablecoin investments in unions. |

| Contracts autonomously execute payouts | | Demand is declared before fund acceptance* | Land titles Cap rate (operating income) | | Use option trading to hedge price volatility |

| | | Parametric insurance | Collectibles and other digital assets. | | Allow external fungible tokens investments attached to UMA option hedge. |

| | | 3th party export or domestic RWA food tokens | | | |

- Basic template contracts do not force traders to buy the supply.
- Not yet implemented

NIN tokens

Digital asset with price stability but elastic supply

Nila introduces a NIN ERC20 token that is pegged to basket of other digital and fiat tokens.

NIN is primarily backed by Indian Rupees on an auditable fiat bank account. At first NIN maintain a 1:1 peg, but as multiple asset become available, a part of the peg will be changed to include Titles, Food commodity tokens or anything else the community decides.

A free peg is important to increase financial efficiency to overcome the cyclical nature of agri-finance. Food tokens for example could be used as collateral once our remote sensing nodes detect a new cultivation at a specific stage. This could free up liquidity that can be used by others to overcome the scarce liquidity period.

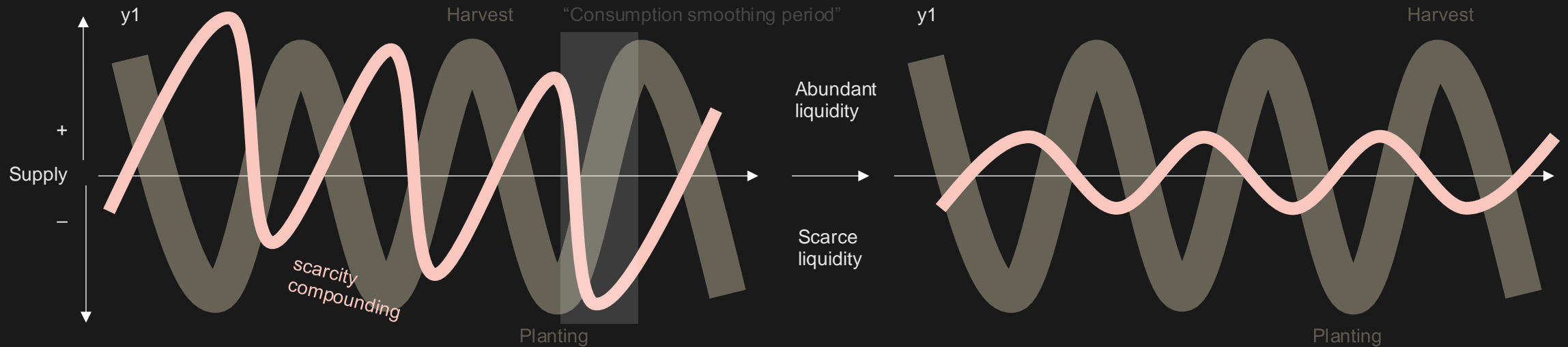From a 1:1 peg to a basket of tokens to improve liquidity cycles.

100% INR

10% Titles

45% Food*

45% INR
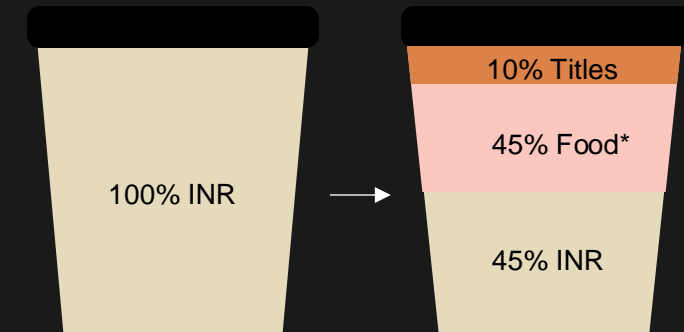
* Primarily focused on 3th party RWA assets.

Pre-harvest liquidity

Flatten the liquidity cycle in agriculture

Supply follows seasonality in cropping, as finance demands increases during the season.

Nila's stablecoins are designed to flatten liquidity cycles in agriculture. This is a prominent issue as income arrives only once or twice a year. Before harvest, when the capital needs is highest, farmers do what is called 'consumption smoothing'.

In multi-season regions, this effect often compounds as the next seeds and prework has to be financed.

This effect is the origin of a lot of government guarantee and subsidy schemes. Financial examples are direct cash transfers, minimum pricing and subsidized insurance, these interventions can distort markets substantially.

Nila targets the scarcity by temporarily reducing the peg pre-harvest, and repegging when liquidity is abundant.

It allows farmers to take up additional funds for very low interest rates, if the crops monitored are healthy. This is viable as the risk period (to harvest) at these moments is drastically reduced.

Union contracts are programmed to dissolve these loans first.

User journey

A union leaders' journey

Get a digital wallet and buy some coins. Then go to Nila.land and create a contract. Share a sign-up link to members.

Bootstrap your union with grants, discounts and trade partnerships. Build the liquidity to accept grow challenges.

List demands from traders; provide funding first, additional services later.

Earn a fee on each traded commodity

A farmers' journey

Generate a land title of a property with the Nila.land app. Join a local union begin investing in neighboring farms.

Wait to be selected yourself. Increase selection chances by lowering P/E rates and by improving soil quality.

Accept funds to grow crops on selected fields. Make sure the crops are delivered before a specific date, then pay back the loan.

Repeat the farm/investment cycle

Union FAQ

In a local stable coin. Union members that use the Nila app can hold Nila Tokens or USDC. Either one can be used to invest and earn interest. Contracts swap the token with a country specific stable coin when deposited. Contracts then swap the stable back to Nila when the loan is dissolved. Any interest is paid in Nila, directly to the investor. This includes investments done in USDC.

When you use the Nila App and walk to your fields, you can quickly create your own unique land title by simply requesting the border of each field. Select them carefully as detection of fraud will freeze all your assets. It often takes several tries. If you don't have data or a strong GPS connection, go try to get either one, if it fails we allow you to manually pan to a field center. Be aware, field verification will be more strict.

Nila tokens give holders strong benefits. Holders are entitled to token grants. Holders are more likely to get selected for loan (not applicable for USDC holders). Holders also share in any profits made by the union contract (if the leader decides to distribute these). Certificates are paid with Nila. Finally Nila holders are de facto network owners, we strongly support services build on-top or with Nila assets to reward Nila holders for their contributions.

Nila uses satellite data to rank agricultural properties and verify ownership. We also build proprietary software to border fields, estimate yields, soil health and moisture metrics. For these inputs Nila uses Sentinel1 and Sentinel2 data from the European Space Agency.

The algorithms are consistent and predictable in their output, but most important they are objective and rational, within an acceptable margin if error.

Unions are important for Nila. Only Union members can invest or receive a loan. When you do not have any debt, you can change Unions any time. Any investment and interest will be paid out to you, you only cannot claim the interest periodically.

Nila assets are valuable as real-world data is captured verifiably and with high stakes. Public use is permitted, but to receive any support or direct user access, reciprocal efforts should be coded-into any services. We think token rewards or profit sharing with our network.

Risks

risk	impact	mitigation

Nila initial phase → Nila Maturity phase

Markets / Financial

risk	impact	mitigation		
farmland too dispersed	high oracle cost	regional focus		
insufficient APY on farmland	token sales failures	speculation & grants	yield from apps build on Nila	
distrust in digital tools	low app uptake	direct $$ feedback	save in USD	peer review
distrust in newcomers	low app uptake	Social share/dissemination (Whatsapp links)	Influential partners	
Too low farmland value for invest.	no farm growth	focus on low-income countries	Increase min. token buyback policy	
refinance service doesn't increase sales potential	no farm growth	grants & subsidies		
tracking cost too high	short runway	regional focus	increase contract fees	
disregard once all vested tokens burned	farmer defaults	focus on diversification of portfolios		

Operational

risk	impact	mitigation		
social distance of crypto and farm communities	low app uptake	Rewards for 'Bridgers' (crypto urbanites orig. from rural villages)		
cumbersome farm registration	low app uptake	Better UX (single point field borders)	peer appraisal discovery (others got $)	
core team focus on farmers	no investors to buy tokens	Memeification and community building		
project with a larger goal – no quick rich scheme	long duration project	call yourself a bear market winner		
no or departing investors on L1 chain	desertification	multi-chain approach		

Regulatory

risk	impact	mitigation
high lobbying power of incumbents	regulatory pressure	increased decentralization
agriculture as 'cradle of ideology'	regulatory pressure	politicians share in profits

Growth strategy

The Global South

Super unions:

Support
Legal,
Partnerships,
$$

Focus on:

Best UX
Best storytelling
Best dev support

Nila focus is on farm groups in the Global South. But anyone can create and use Nila contracts without permission. Members who sign up are eligible to receive a small grant.

Unions that make great leaps; in minted land titles, grants and commodities traded, get extensive support, both financial and marketing/sales.
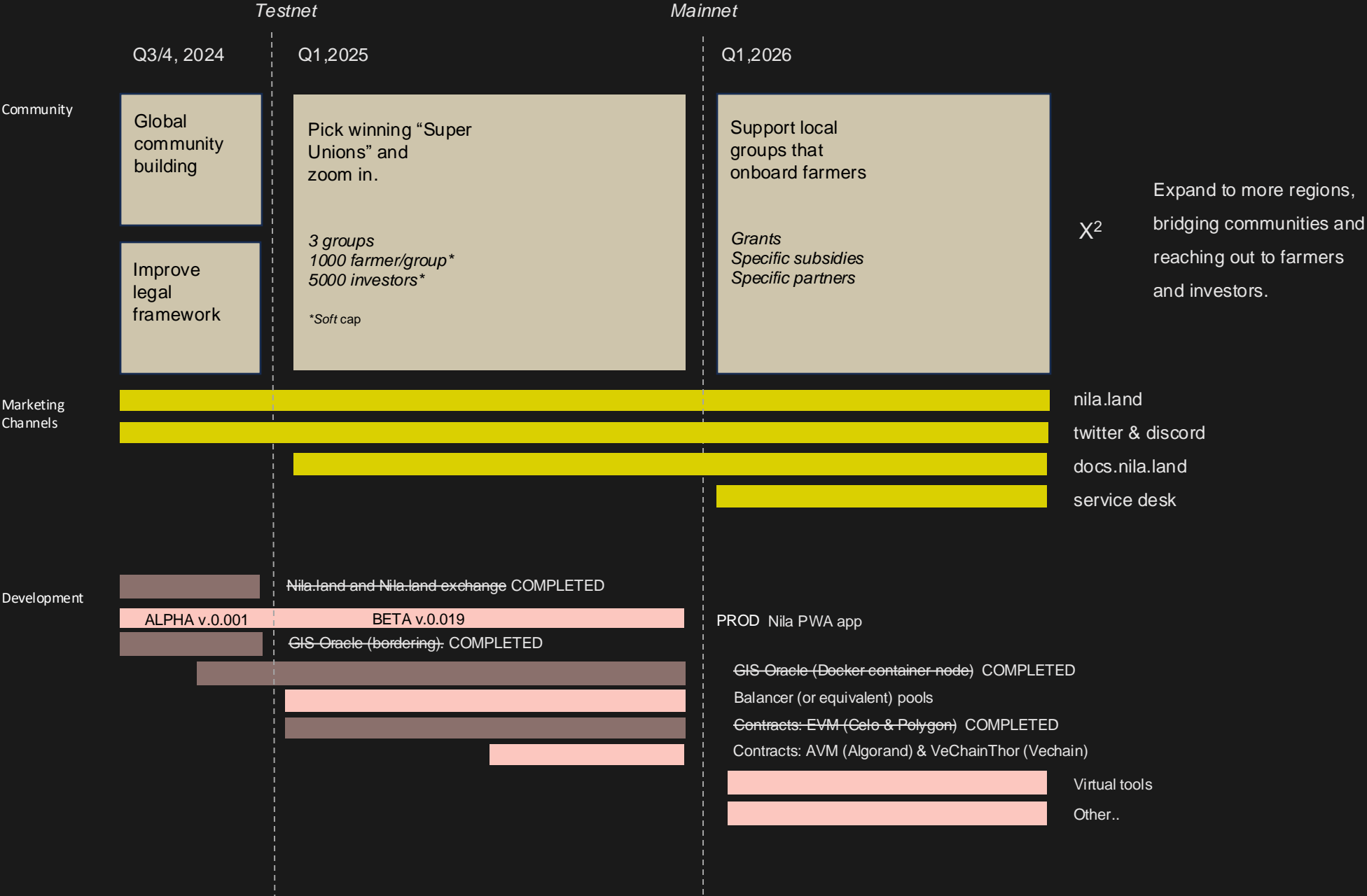
We always reward participation and make opportunity tangible.

"Other farmers in this area got $$$"

Roadmap

Q3/4, 2024   Q1,2025   Q1,2026

Community

Global community building

Pick winning "Super Unions" and zoom in.

3 groups
1000 farmer/group*
5000 investors*

*Soft cap

Support local groups that onboard farmers

Grants
Specific subsidies
Specific partners

Improve legal framework

X^2

Expand to more regions, bridging communities and reaching out to farmers and investors.

Marketing Channels

nila.land

twitter & discord

docs.nila.land

service desk

Development

~~Nila.land and Nila.land exchange~~ COMPLETED

ALPHA v.0.001   BETA v.0.019   PROD Nila PWA app

~~GIS Oracle (bordering).~~ COMPLETED

~~GIS Oracle (Docker container node)~~ COMPLETED

Balancer (or equivalent) pools

~~Contracts: EVM (Celo & Polygon)~~ COMPLETED

Contracts: AVM (Algorand) & VeChainThor (Vechain)

Virtual tools

Other..

Organic growth, relentless focus, originality, genuine and *no, we don't sell land*.

"Finally web3 makes real-world impact."

Financials – *income statement*

Chitta vs. Nila income and profits

	Chitta Budget 2023	Nila Actual 2024	Nila Forecast 2025
	$ 220.000,-	$20,000,-	$150k
Gross profit	$220.000,-	$19.450,-	$148.500,-
%	100%	97.25%	99%
Expenses:			
Community building	0k	4k	95k
Product & Technology	25k	12.95k	26k
Crypto security	0k	0k	5k
Sales and Lobbying	12k	0k	3k
Legal	0k	1k	3k
Other expenses	1.5k	1.5k	5k
Net revenue	$181.500,-	$0,-	$11.500,-
%	82.5%	0%	7.74%

Financials – *revenue channels*

Chitta revenue channels. vs. Nila revenue potential

Grants
30% (45k)

Self-funding
5%

Grants
95%

Chitta 2023

N-sales
5% (7.5k)

Grants
30% (45k)

Contract fees
10% (15k)

Seed funding
55% (82.5k)

Nila 2025 (goal)