Mangata X - Tokenomics

Version 1.0 - 2021-12-22

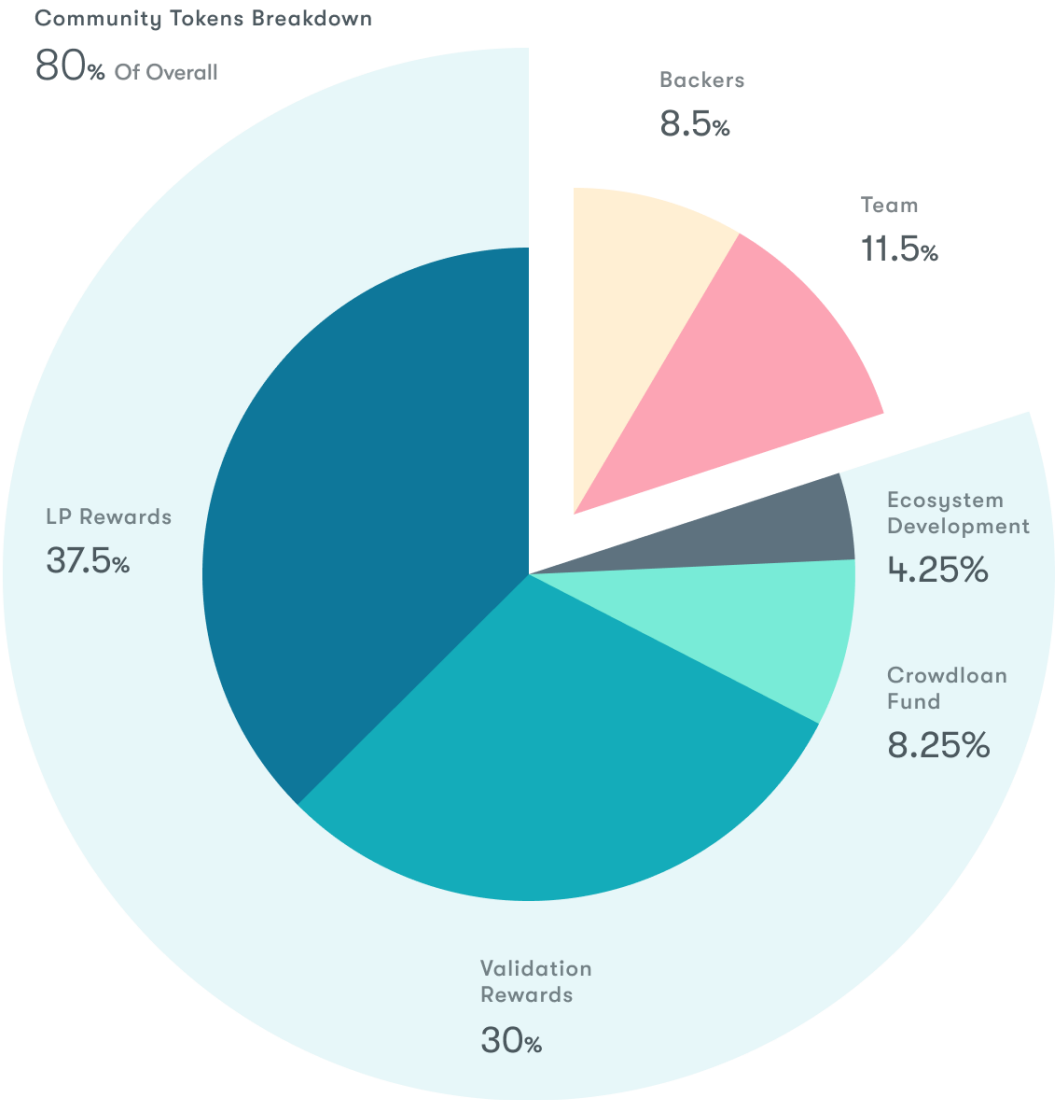## Token distribution

Token origination

The total amount of tokens at the TGE is 1bn MGX.
MGX token cap is 4bn tokens. MGX are issued as rewards for participation in the network.

Component	notes	Total Tokens at TGE		year 5 circulating	
Backers	20% immediately, vesting 2 years	340,000,000 MGX	34%	340,000,000 MGX	8.50%
Team	20% immediately, vesting 2 years	460,000,000 MGX	46%	460,000,000 MGX	11.50%
Ecosystem Development	immediate release	170,000,000 MGX	17%	170,000,000 MGX	4.25%
Crowdloan Fund	20% immediately, vesting 1 year	30,000,000 MGX	3%	330,000,000 MGX	8.25%
Validation Rewards	linear over 5 years	0 MGX	0%	1,200,000,000 MGX	30.00%
LP Rewards	linear over 5 years	0 MGX	0%	1,500,000,000 MGX	37.50%
SUM		**1,000,000,000 MGX**	**100%**	**4,000,000,000 MGX**	**100.00%**

Token Distribution reaches cap after 5 years

Overall Token Distribution

Community Tokens Breakdown
80% Of Overall

Backers
8.5%

Team
11.5%

Ecosystem Development
4.25%

Crowdloan Fund
8.25%

LP Rewards
37.5%

Validation Rewards
30%

(percentages of capped supply given below)

TGE: 1B MGX

- 4.25% Ecosystem development, immediate release
- 8.5% Investors (Backers), linear vesting over 2 years, 20% released immediately
- 11.5% Team, linear vesting over 2 years, 20% released immediately
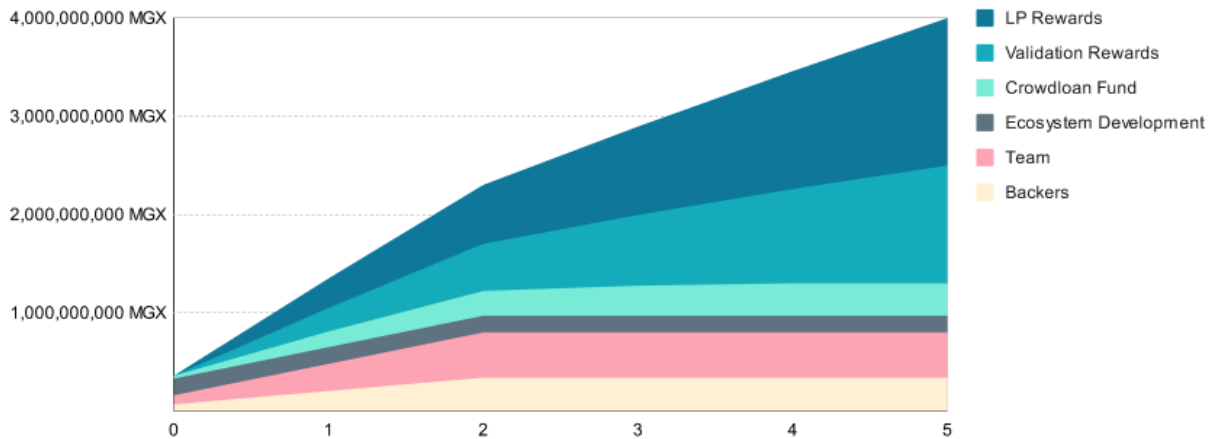
Inflation: 3B MGX

- 8.25% reserved for Parachain Crowdloan rewards; 3.5% used for the first crowdloan, 20% of which is released immediately, the rest linearly over the slot period; remaining crowdloan funds can be used in later crowdloans
- 30% Validation rewards, released over 5 years
- 37.5% LP rewards, released over 5 years

Tokens generated at the TGE for backers and the team are vested for 2 year with linear release and 20% unlocked immediately after TGE.
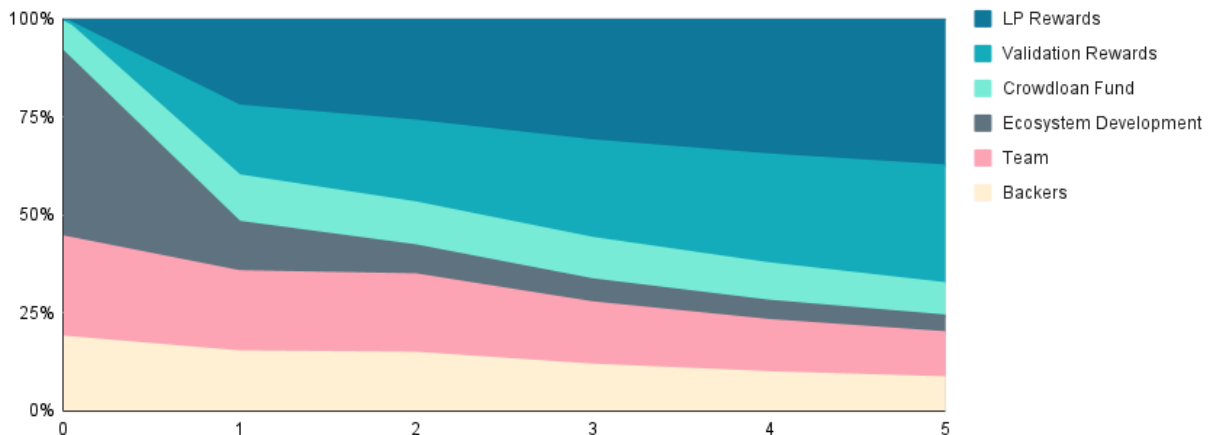
Token distribution over time

Relative Token Distribution over time

This distribution chart shows the relative token distribution of circulating supply over time. As shown, the emission results in incremental community ownership crossing the 50% barrier within 2.5 years and ultimately reaching more than 80% community ownership.

MGX emissions: Capped at 4bn after 5 years

Legend:
- LP Rewards
- Validation Rewards
- Crowdloan Fund
- Ecosystem Development
- Team
- Backers

Token holding dynamics

The token distribution is designed to support long-term decentralization, fair distribution and treasury growth.

Parachain slot auction crowdloan

- Mangata's aim is to acquire a parachain slot on Kusama
- This is required to connect to other Kusama chains and bridges
- A crowdloan has the form of a loan from the early community
- 8.25% of the max token supply will be used to incentivise participation
    - 3.5% allocated for the first Kusama Crowdloan

The business model of the chain is to create a sustainable model to fund continued development and operations of the chain and the costs for a parachain slot without requiring further crowdloans. This means the influx of fees into the treasury over the parachain slot lease period has

to be higher than the slot cost. With this assumption we are able to estimate how much trading volume is needed to no longer require a crowdloan to cover the slot cost.

Initial liquidity

- The initial liquidity pool will be a MGX-KSM pool
- Liquidity Mining incentives will be provided to bootstrap it
- If the pool needs more active support, ecosystem development funds may be used
- This initial pool is required for the buy & burn mechanism

Liquidity providing

- Increased liquidity provision supports treasury growth (more liquidity = less slippage, which results in better prices and thus more trading activity)
- Increased liquidity provision supports the long-term decentralization (more tokens are accessible for the general public)
- Providing liquidity is strongly encouraged for participated parties
- Vested tokens could be provided as liquidity
- Simply put, more liquidity = better for the protocol.

We assume around half of the MGX tokens will be provided to liquidity pools and the rest to be held either in wallets/storages, or in the Mangata X treasury. The division is expected because of differences in incentives for token holders and liquidity providers- while liquidity providers are able to benefit from price volatility and capital gains at the same time, token holders are able to obtain higher returns from capital gains and may be engaged in active trading strategies.

MGA token distribution, expected
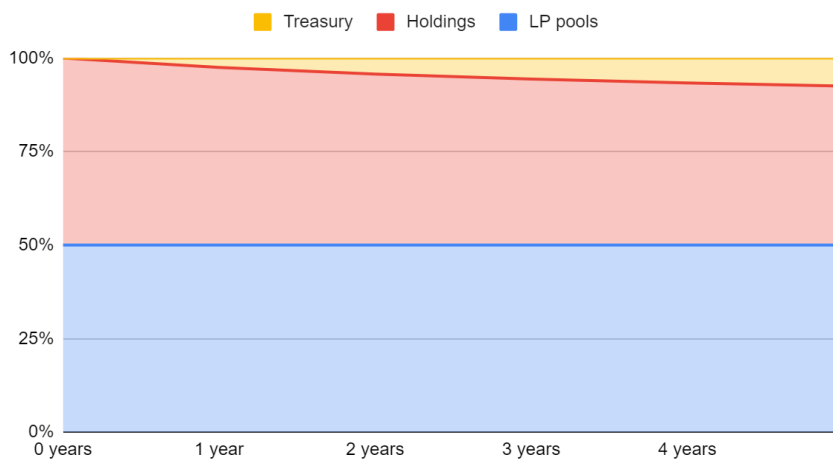
Rewards structure

There are four types of direct rewards on Mangata:

- Share of the pool fees;
- Liquidity mining;
- Validation rewards;
- Crowdloan rewards.

There are three roles eligible for the rewards:

- Liquidity providers;
- Delegators (Stakers);
- Crowdloan lenders.

Reward types

Share of the pool fees rewarded depend on the trading activity in the pool, but also on age of the liquidity. The longer liquidity is provided, the more "weight" it is given relative to the same amount provided later. The exact technical implementation is to be discussed. A potential framework we are considering is a checkpoint mechanism, similar to what Curve uses, will be implemented. In the case where it is not technically feasible to affect fee acquisition, we may consider incentives that achieve a similar effect.

Liquidity mining for LPs. The amount for the reward depends on the amount of the liquidity provided. Liquidity mining rewards have an 8 weeks linear increment from 50% to 100%.

Validation rewards for Delegators (Stakers). The amount of the reward depends on the total blocks created. Delegators are incentivized for block creation in MGX tokens. As Collators (Node Operators) can provide self-stake, they are also eligible for validation rewards.

Crowdloan rewards are distributed from token inflation to participants who lend funds to cover the costs of parachain auction.

Inflation & Burning cycles

(infinite liquidity mining and validation rewards)

MGX tokens are linearly issued up to the token cap. The MGX token issuance (minting) is set to reach the token cap in 5 years. However, destruction (burning) of MGX tokens using the buy &

burn mechanism can extend the timeframe. The total amount of MGX tokens issued are distributed via Liquidity mining, Validation rewards and Parachain auction rewards.

Estimation:
- 1 000 000 000 MGX tokens are issued at token generation event;
- The token cap is 4 000 000 000 MGX;
- Thus, 600 000 000 MGX are to be issued per year, or 136 986 tokens per 2-hour long epoch.

The balance between Liquidity mining, Validation rewards and Parachain auction rewards is to be discussed, but proposed to be 50/40/10 of the total token inflation.

From the example above, 68 493 MGX per epoch will be distributed for Liquidity mining rewards, 54 795 MGX for Validation rewards and 13 698 MGX for Parachain auction rewards.

After reaching the token cap, the issued amount of MGX is limited by the destroyed amount of MGX. However, if the amount destroyed exceeds the linear release amount (which was used before reaching the cap), the linear release amount is used.

Example 1:
- There are 4 000 000 000 MGX in circulating supply;
- 10 000 MGX were burned according to the buy&burn mechanism;
- Thus the circulating supply is reduced to 3 999 990 000 tokens;
- At the end of the epoch only 10 000 MGX will be minted.

Example 2:
- There are 4 000 000 000 tokens in circulating supply;
- 200 000 MGX were burned according to the buy&burn mechanism;
- Thus the circulating supply is reduced to 3 999 800 000 tokens;
- At the end of the epoch the full regular amount of 136 698 MGX will be minted.

Fees structure

There are two types of fees on Mangata:
- Transaction fee;
- Exchange commission.

Fee types

Transaction fee is associated with every transaction except token exchange transactions. Transaction fees are fixed and are distributed to validators (collators). They are serving as spam protection and are not expected to be a meaningful reward.

Exchange commission is 0.3% of the exchange transaction value. There are no transaction fees associated with exchange transactions.

Exchange commission distribution

Exchange commission is distributed three ways:
- LP rewards   0.2% of the trade volume;
- Treasury   0.05% of the trade volume;
- MGX buy & burn   0.05% of the trade volume.

LP rewards are described above.

The Treasury is locked and spent according to onchain governance (council) decisions, including covering costs of parachain, R&D, marketing, future fundraising and other if council decides so.

Buy & burn mechanisms' purpose is to support MGX token price appreciation. A share of the trade volume is automatically allocated to purchase MGX tokens and then burn the purchased tokens, creating an upward pressure on MGX token valuation even when trading activities are happening on pairs where MGX is not present.

Buy & burn simulation summary

The results presented are for the following pool parameters:
Provided liquidity amount is equal to 10% of Uniswap top-50 liquidity pools;
Trading volume is equal to 10% of Uniswap top-50 liquidity pools trading volume;
For the sake of simplicity, it is assumed that the price is not changed by trading activity.

1 year simulation results:
Without treasury and buy & burn
> Growth of token amount in liquidity pools: 15.80%
> Total MGX price appreciation: 0%
> Treasury valuation: $0

With treasury, without buy & burn
> Growth of token amount in liquidity pools: 13.17%
> Total MGX price appreciation: 0%
> Treasury valuation: $8 028 957

With treasury and buy & burn
> Growth of token amount in liquidity pools: 13.18%
> Total MGX price appreciation: 7.51%
> Treasury valuation: $8 028 957

Thus, introduction of treasury and buy & burn mechanisms does not have a negative impact on LP, and helps to provide utility for the chain and supports MGX token appreciation.