BigWater Protocol: Proof of Impact Infrastructure for a Regenerative Economy

Executive Summary

BigWater Protocol is built on a foundation of proven, real-world environmental infrastructure. The protocol's origins trace directly to **JanaJal**, a technology-enabled water services company with over 15 years of operational experience delivering safe drinking water to underserved communities across India. Through its patented IoT-powered water management technology and proprietary JJSUITE platform, JanaJal has established one of the most extensive verified environmental data networks in the water sector within developing and under-developed environments:

220M+	30M+	1B+	50M+
Litres of Clean Water Delivered	Users Served	Data Points Collected	Single-use Plastic Containers Eliminated

This operational track record is not a partnership — it is the bedrock on which BigWater is built. JanaJal's infrastructure, data pipelines, and community networks stemming from a proprietary, patented tech platform constitutes the foundational physical layer of the BigWater Protocol..

BigWater Protocol takes this foundation and extends it into a **Decentralised Proof of Impact** that measures, verifies, and scores real-world climate and sustainability actions. Individuals and businesses receive an **Impact Score**, similar to a credit score, based on verifiable actions like carbon reduction, water conservation, and circular economy participation.

The protocol aggregates data from IoT devices, enterprise systems, and third-party validators, converts it into standardized impact units, and anchors proof on-chain. This creates a transparent, portable, and trusted reputation layer for climate action — unlocking incentives, financing, and credibility across ecosystems.

BigWater's role is focused and deliberate: measure, verify, report. The protocol does not seek to execute every part of the environmental value chain. Instead, it provides the verification infrastructure that transforms environmental actions — performed by projects, communities, and enterprises worldwide — into trusted digital assets.

Measure · Report · Verify

BigWater provides the verification layer. Environmental actions are performed by projects and partners. The Protocol measures, verifies, and reports outcomes on-chain.

2. Problem Statement

Broken ESG Systems

- Self-reported data
- Lack of standardization
- Limited transparency

Inefficient Verification
- 12–24 month delays
- High cost
- Manual processes

Web3 Utility Gap
- Speculative Tokens
- No real-world linkage

2A. Legacy & Foundation: JanaJal

BigWater Protocol builds on the experience and expertise of **JanaJal**, a pioneering organization founded by Dr. Parag Agarwal in 2013 to solve India's clean water crisis. JanaJal has been at the forefront of deploying IoT-enabled Water ATMs and mobile delivery vehicles ("JJWOWs") across 7 Indian states.

Proven Track Record:

- **220M+ litres** of Clean Water dispensed
- **30M+ users served** across urban and rural India
- **2M+ subscribers** to date
- **109M single-use plastic bottles** eliminated
- **1B+ data points** collected over 10 years
- **Real-time IoT + blockchain-enabled monitoring** via patented **JJSUITE** platform
- **Selected** by Government of India for **Jal Jeevan Mission** and **AMRUT 2.0** under Ministry of Jal Shakti as one of 5 innovative technologies for decentralized distribution of clean water in urban, peri-urban and rural areas.
- **Technology Patent granted** for integrated Water Management tech platform by Government of India.
- **Design Patent granted** for three-wheeler Electric Vehicles by Government of India.

JanaJal's award-winning innovative technology platform, IOT-enabled three-wheeler vehicles and smart water treatment plants are a time tested, proven solution that has received validation and recognition at the highest level in India and globally.

Segway to BigWater:

- From local centralized ops to a global decentralized, tokenized model
- Leveraging Web3 to eliminate donor dependency
- Enable global participation via staking, device ownership, and NFT-based clean water credits
- Institutionalize "Circular CSR" by monetizing verified Impact data
- Integrating verified Clean Air and Clean Water Impact into ESG portfolios for corporates

BigWater is a full-stack infrastructure that connects:
- Physical systems (IoT, Water, Air, Forests)
- AI verification layer
- Blockchain settlement layer

This foundation ensures that BigWater is not starting from zero. It scales a decade of real-world impact through tokenization, offering a rare blend of proven execution and future-facing decentralization. BigWater Protocol builds on the decade-long experience of **JanaJal**, a pioneering organization founded by Dr. Parag Agarwal in 2013 to solve India's safe drinking water crisis. JanaJal has been at the forefront of deploying IoT-enabled Water ATMs and mobile delivery vehicles ("JJWOWs") across 7 Indian states in collaboration with global organisations such as USAID, UKAID, GSMA Innovation Fund, Safe Water Network and various States, Corporates and Charitable Foundations in India and globally.

3. Proof of Impact Framework

BigWater combines Real World Asset (RWA) tokenization, DePIN infrastructure, and AI-powered BigData analytics.

Step 1 — Measure

Real-world data collected via:

- IoT sensors
- Satellite imagery
- Drones

Step 2 — Verify

AI-powered validation using:

- BuzzzAgentic Engine
- Compliance frameworks

Step 3 — Reward

- Impact Score issued
- $BIGW tokens distributed

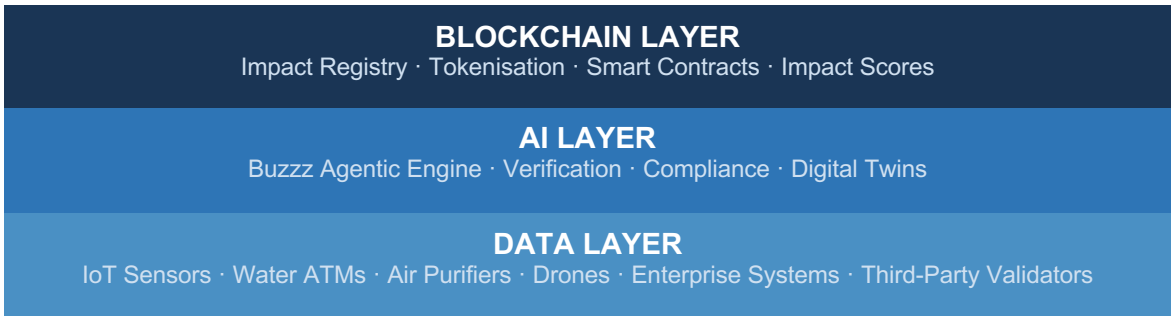
One of the greatest and oldest scientific method of improving air quality, reducing AQI and abating CO2 emissions is planting trees. The BigWater Protocol is supporting the Government of India's Net Zero target by 2070 announced by Prime Minister Narendra Modi during COP26 in Glasgow in 2021. Various activities and initiatives such as large-scale Afforestation, Biodiversity Conservation and Ecosystem Restoration will now be integrated into the BigWater Protocol with the aim to incentivize and reward citizens to protect and preserve the environment through their sustainable actions. These include:

- Monitoring and evaluation of Plantations and Afforestation
- Drone-based monitoring and intelligence data gathering for sustainable projects
- Development and deployment of advanced conservation technologies of natural resources and data-driven solutions.
- Ocean Cleanups

Actions in this direction aim to deliver the following outcomes:

- Voluntary tree plantation drives
- Green Credits
- Build Ecological Profile of every citizen through a BigWater Score
- Water Credits

Technology Architecture - 3-Layer Stack



Blockchain Layer

- Smart contracts
- Impact Registry
- Token issuance

BuzzzAgentic AI Layer

- Digital twins
- Predictive analytics
- Automated compliance

Data Layer

- IoT infrastructure
- Water systems
- Air Purification devices

Impact Score

A dynamic score (0–1000) representing environmental performance and eligibility for rewards.

4. Buzzz Agentic Verification Engine

At the centre of the Protocol is the Buzzz Agentic Engine — BigWater's self developed, AI-powered verification system. This engine automates environmental verification using analytics and machine learning models, dramatically reducing verification timelines from months to weeks.

Capabilities

- Tree detection and segmentation from satellite and drone imagery
- Species classification and biodiversity assessment
- Biomass estimation and carbon sequestration calculations
- Water quality anomaly detection and monitoring
- Environmental compliance verification against regulatory frameworks
- Digital Twin creation for ongoing environmental modelling
- Analytics to calculate Impact Scores for stakeholders and participants

Verification Pipeline

Stage	Process	Output
1. Data Ingestion	IoT, satellite, drone, and enterprise data streams in	Raw environmental data
2. AI Processing	ML models classify, segment, and quantify	Processed metrics and scores
3. Verification	Multi-source consensus and compliance checks	Verified impact records
4. Credit Generation	Verified records tokenised on-chain	Carbon Credits, Water Credits, Impact Scores

The Buzzz Agentic Engine enables environmental projects of all sizes to participate in climate markets. Small community reforestation projects, municipal water systems, and corporate sustainability programmes can all access the same verification infrastructure previously available only to large-scale projects with the resources for 6–18 month manual audits.

5. Market Opportunity

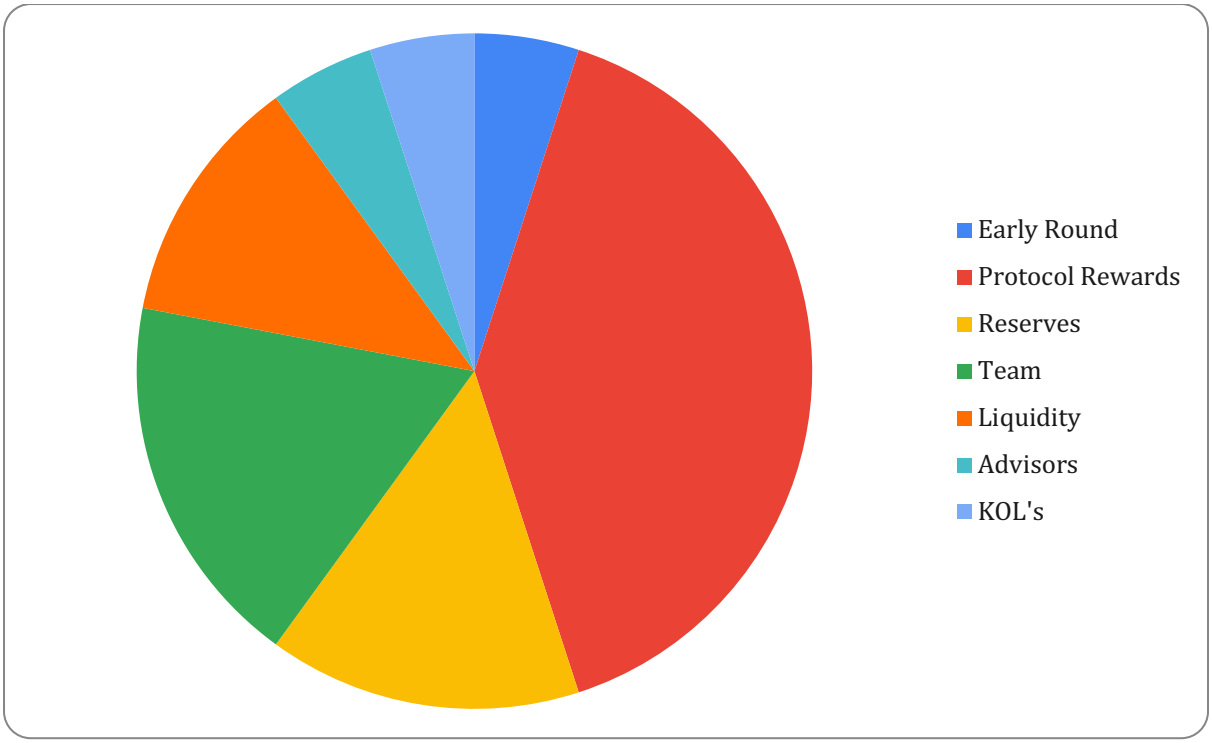
- **Clean Water Market**: Bottled water market expected to reach $565B by 2034
- **Air Purification**: Pollution is the world's single largest universal problem faced by all countries. The TAM is is projected to reach USD 53.66 billion by 2033, growing with a CAGR of 7% during the forecast period (2025–2033)
- **Data Monetization**: Global data analytics market to exceed $250B by 2030

6. $BIGW Token Utility

- Rewards for impact
- Ecosystem payments
- Governance participation

7. Tokenomics

BigWater Protocol operates on the $BIGW token — a fixed-supply, utility token powering the Proof-of-Impact economy. It serves as a reward, governance, and access mechanism for stakeholders.



- **Total Supply**: 10B BIGW (Fixed)
- **Token Type**: ERC-20 (L2 Compatible)
- **Chains**: XDC and BNB

Allocation:

- 5% - Early Round
- 40% - Protocol Rewards
- 15% - Reserves
- 18% - Team
- 12% - Liquidity
- 5% - Advisors
- 5% - KOLs

Buyback & Burn Programme

To create sustained deflationary pressure and reward long-term holders, BigWater operates a systematic token buyback and burn programme funded by Protocol revenue.

Buybacks: A dedicated portion of Protocol revenue — generated from credit issuance fees, verification services, and enterprise subscriptions — is used to purchase $BIGW tokens from the open market on a regular cadence. These buybacks are publicly announced, executed transparently, and fully trackable on-chain. As ecosystem activity grows, the volume of buybacks scales proportionally, creating consistent and compounding buy-side pressure.

Burns: A percentage of tokens acquired through the buyback programme are permanently burned — removed from the total supply forever. Each burn event is recorded on-chain with verifiable proof, reducing circulating supply over time. Burn events are announced publicly to the community, serving as visible milestones of protocol growth and ecosystem health.

The combined effect of systematic buybacks and permanent burns creates a deflationary dynamic where increasing protocol usage directly translates into reduced token supply and

growing scarcity. This mechanism aligns the interests of all ecosystem participants: projects, verifiers, token holders, and the broader community all benefit as the protocol scales.

Staking Model

Term	APR	Bonus	Total
1 Year	15%	2%	17%
2 Years	18%	4%	40%
3 Years	22%	7%	73%

Multi Chain — XDC + BNB

BigWater operates across multiple blockchain networks to maximise accessibility, liquidity, and expand participation; individual and institutional..

XDC Network
Infrastructure optimised for institutional adoption and enterprise-grade tokenisation. Designed for trade finance and regulated financial markets — an ideal foundation for institutional climate asset issuance and compliance.

BNB Smart Chain
Global Web3 liquidity, large developer ecosystem, and fast low-cost transactions. Enables BigWater to reach the global decentralised finance community and retail participants.

XDC ↔ BNB Bridge

A core component of BigWater's crosschain architecture is the cross-chain bridge enabling seamless asset and data movement between XDC Network and BNB Smart Chain. Participants can transfer $BIGW tokens, Carbon Credits, and Water Credits across both networks, ensuring liquidity and environmental assets are not siloed within a single chain.

The bridge incorporates multi-signature validation, time-locked transfers, and on-chain audit trails for every cross-chain transaction. Users move assets through a simple interface, with the bridge handling cryptographic verification and state synchronisation automatically.

8. Ecosystem Verticals

Clean Water
- IoT-enabled water systems
- Water credits

Afforestation
- Verified tree planting
- Carbon credits

Clean Air
- Air purification

- Pollution reduction

IRL$_7$ Global Hospitality Eco-system for Digital Nomads

- Sustainable Resorts & Private Islands
- Technology driven Sustainability Framework

Key Features

- 7 Sustainability Pillars
- Blockchain-verified scoring
- Tokenized memberships

Strategic Role

- Demand engine for $BIGW
- Real-world adoption layer

9. Governance

BigWater intends to transition into a DAO in the future. Token holders will:

- Token-based voting
- Proposal system
- Treasury management
- Participate via staking-based governance

10. Roadmap

Phase	Timeline	Milestones
Foundation	2025–26	Token listed on Bitmart & Coinstore (Aug 2025). Infrastructure deployment across South Asia, SE Asia, Africa, Europe. DePIN network expansion. DEX Pancake Swap trading and LP pools. Additional CEX listings.
Growth	2027	Blockchain environmental registry launch. Buzzz Agentic Engine goes live for automated Proof of Impact. Impact Score beta launch.
Scale	2028–30	IRL7Isle flagship project established on the Baltic Coast, Billions of verified trees tracked on-chain. Aggregation of global water treatment infrastructure and delivery of clean water using sustainable practices across continents. Large-scale environmental asset adoption. Institutional partnerships.
Vision	2035	Global climate verification standard. Fully decentralised governance. Global IRL7 footprint of eco-communities with $BIGW utility embedded. Planetary-scale impact measurement.

11. Impact Metrics

BigWater leverages a dual-impact framework: delivering measurable environmental outcomes (Air and Water) and generating socio-economic value through data and token rewards.

Legacy Environmental Impact:

- 109M single-use plastic bottles avoided
- 616,000 tonnes CO2 emissions targeted abatement. This quantum expected to grow exponentially through integration of Afforestation projects in India and globally
- 2.5B litres of clean water delivery planned over 5 years.

Projected Health & Social Impact:

- $26M in potential medical cost savings
- 367,722 waterborne disease cases prevented (5-year goal)
- $29.9M in micro-income to last-mile entrepreneurs, ~40–50% women-led

Digital ESG & Circular CSR:

- Verified **Water Credits/Offsets** for ESG reporting
- Corporates can offset their Carbon and Water footprint using on-chain Impact data
- Donors and foundations can invest once and benefit from recurring, transparent impact through BigWater's data monetization model

12. Partnerships

- **JanaJal - Singapore, India**
- **XDC Chain**
- **BNB Chain**
- **NewTribe Venture Capital**
- **Foundership, UAE**
- **Orbital Beam, USA**
- **Web3 KOLs & Influencers**
- **Otherdots Foundation, Cambodia**
- **UP8 Trust, Pacifica Region (14 countries)**
- **Zerospread, France**
- **Tau-da, UAE**

13. Team & Advisors

Core Team

Dr. Parag Agarwal · Founder & CEO

Founder of JanaJal. Four decades of experience as a social entrepreneur and technologist. Awarded a Patent by the Government of India for IoT-powered water management technology. Conferred a Hon. Doctorate in Social Work & Impact. The visionary behind the BigWater ecosystem.

Sudeep Patil · VP Engineering

Systems engineer specialising in low-level protocol design. Previously worked on light-client core, networking layers and contributed to rust-libp2p, reth, axiomcrypto, Foundry, CosmWasm, and more.

Tina Dua · Head of ESG

Experienced ESG and impact management leader. Drives BigWater's sustainability strategy and ensures alignment with UN Sustainable Development Goals. Brings institutional-grade ESG rigour to verification and reporting.

Kaito Yamada · Head PMO

Founder and technology operator with 14+ years building and scaling ventures across blockchain, AI, and digital platforms in the US, Japan, and India. Scaled products to 500K+ users and $200M+ in transaction volume.

Advisors

Anurag Agarwal · Advisor

Corporate strategy and governance expert, advising across capital markets and policy domains.

Juliet Su · Advisor

Managing Partner and Ecosystem Lead at NewTribe Capital, a Dubai-based VC specialising in Web3 early-stage investments.

Pranav Agarwal · Advisor

Dubai-based Web3 investor and thought leader with 15+ years in early-stage tech and blockchain ventures.

14. Legal & Risk

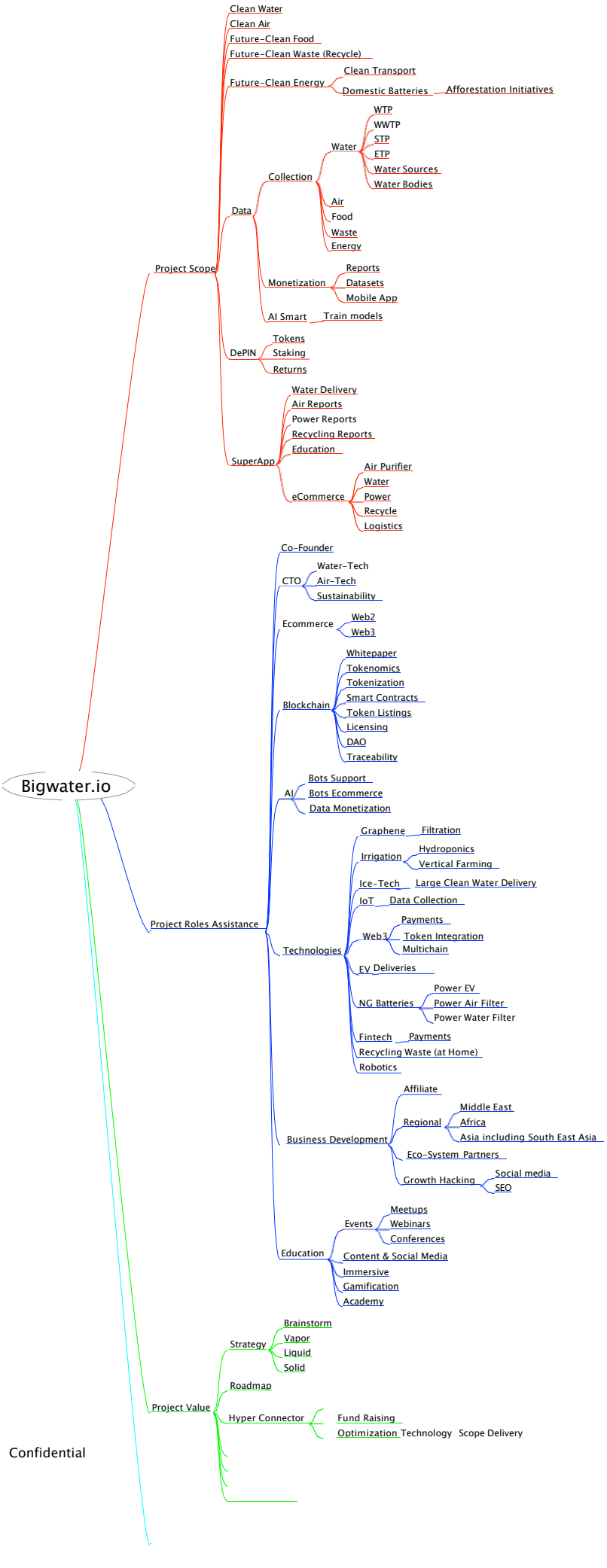
- Jurisdiction: British Virgin Islands
- Token is a utility token under preliminary review
- KYC & Anti-Sybil protection active at device & wallet level
- Legal Partners - To be disclosed
- Smart Contract Auditors – Quill Audits & Certik
- Risks: IoT adoption, regulatory changes, hardware maintenance, Web3 volatility

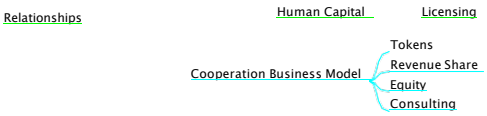
15. Appendix

- Glossary: DePIN, DeSci, RWA, NFT, AQI
- Citations: WHO, WaterAid, Niti Aayog, UN SDGs
- Smart Contracts Audit - Completed
- **$BIGW Mind map**: This mind map outlines the end-to-end vision for BigWater, from token-powered utilities to partnerships across DeFi, IoT, ESG, and eCommerce.

The BigWater Protocol turns climate action into a quantifiable, rewarding, and data-backed experience. It is more than a token – it's a movement to democratize environmental justice.

BigWater





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