

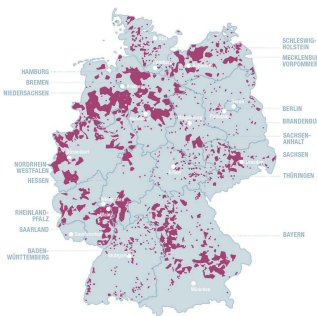
Investment Thesis: The NO₃ Impact Fund addresses Germany's structural nitrate burden by deploying private capital into preventative agricultural transition rather than downstream remediation. Instead of treating contaminated water after the fact, the strategy finances precision farming systems and nutrient optimization technologies that reduce nitrate leaching at source. The investment case is anchored in measurable performance. Compensation to the fund is directly linked to verified environmental outcomes, creating a financial structure in which public stakeholders remunerate the vehicle based on documented reductions in contamination levels. This approach aligns fiscal savings with environmental impact while generating structured returns for investors. The fund targets an average blended return of approximately 11 percent, supported by contractual revenue streams and phased performance validation. During the initial ten-year phase, the objective is to reduce nitrate runoff by ~10,000 tons annually within the pilot region, establishing a replicable financing template for broader geographic expansion.

Term Sheet

Fund Name	NO ₃ Impact Fund
Fund Type	Closed-end blended finance vehicle
Fund Size	€20M (Pilot)
Target IRR	11%
Horizon	10 years + 2yr extension option
Mngmt. Fee	2.0% p.a.
Carried Interest	20% above 8% hurdle
Capital calls	2 years
Structure	German GmbH & Co. KG; SFDR Article 9
Verification standard	paired control watershed (ISO 14064)
Outcome Payers	Governments Water utilities Health System (GKV)

The Challenge

Germany faces a persistent nitrate contamination problem rooted in decades of fertilizer-intensive agriculture. Excess nutrient application and livestock concentration have pushed groundwater nitrate levels above EU regulatory limits in more than a quarter of monitored sites. Water utilities incur hundreds of millions of euros annually in additional purification costs, while federal authorities face growing exposure to EU penalties. Elevated concentrations also carry serious public health consequences: impaired oxygen transport causes methemoglobinemia, particularly dangerous for infants, and is linked to increased cancer risk in adults. Farmers meanwhile lack access to capital-efficient solutions to modernize nutrient management without compromising productivity. Rhineland-Palatinate, one of the most affected regions, provides a concentrated environment to demonstrate a scalable intervention model.



The Solution

The solution centers on accelerating the transition toward precision agriculture and optimized nutrient management. The fund finances modern equipment, data-driven soil analysis systems, and integrated nutrient application technologies that reduce excess fertilizer use without compromising agricultural productivity. By enabling access to capital-intensive farming technologies, the strategy addresses one of the primary barriers to sustainable adoption. Participating farms implement measurable reduction practices supported by digital monitoring tools that track fertilizer application and soil conditions in real time. These systems generate verifiable performance data, ensuring that environmental improvements are quantifiable rather than estimated. The approach emphasizes prevention over remediation. By reducing nitrate leaching before it enters groundwater systems, the model decreases long-term treatment costs and strengthens soil and ecosystem resilience. This upstream intervention creates durable environmental improvement while preserving economic viability for agricultural producers.

Fund Structure

The NO₃ Impact Fund (1) operates through a structured blended finance model that aligns investors (2), farmers (3), service providers (4), public subsidies (5), stakeholders (6), and the Green Impact Fund (Germany) framework (7) within an outcome-driven capital structure.

Investors (2) commit capital to the NO₃ Impact Fund (1), where it is pooled and allocated to certified service providers (4). These service providers are the operational backbone of the fund. Rather than selling equipment to individual farmers, they function as dedicated delivery partners that procure, deploy, and maintain precision farming infrastructure across the entire portfolio. This includes variable-rate fertilizer applicators, GPS-guided field management systems, and digital soil monitoring tools. Farmers receive access to this infrastructure at zero cost, removing the single largest barrier to adoption. Service providers are contracted and compensated by the fund directly, ensuring that equipment quality, data integrity, and operational continuity remain under the fund's governance rather than dependent on individual farm budgets. Capital deployment is complemented by European agricultural subsidies (5), including CAP and EAFRD programs, which cover approximately 25 percent of upfront equipment costs and further reduce the private capital required.

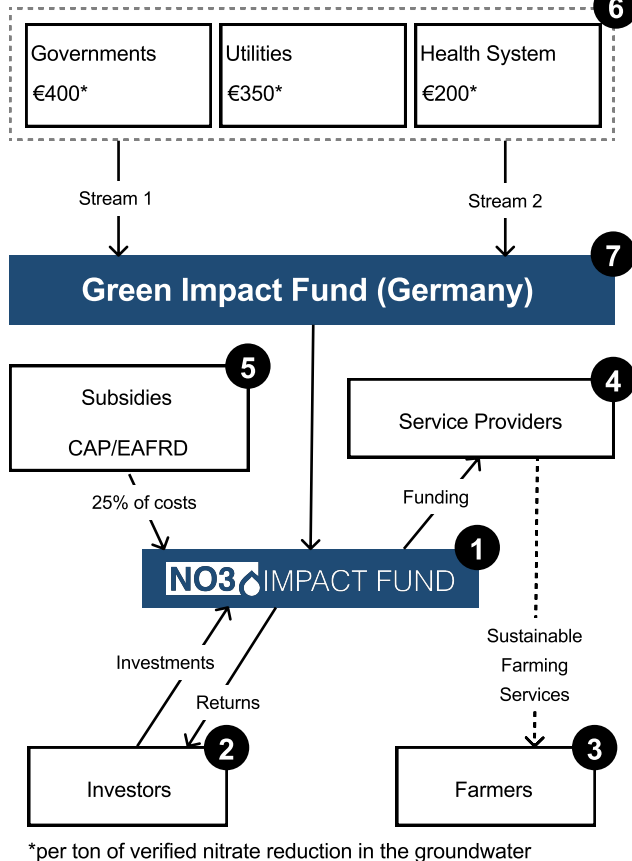
The revenue mechanism is structured through the Green Impact Fund (Germany) (7), which acts as a single contractual intermediary, channeling performance-based payments from stakeholders (6) to the fund (1). This single-intermediary structure is deliberate: it consolidates payment obligations from three independent payer streams into one contractual relationship, significantly reducing coordination risk. Stakeholders (6), including governments, water utilities, and statutory health insurers, compensate the structure based on verified environmental improvements. The payment structure follows a two-stage model.

Stream 1 is released once farmers (3) demonstrate measurable reductions in fertilizer usage, verified through digital farm management data and standardized reporting systems.

Stream 2 is triggered once independent third-party auditors confirm a directional NO₃ decline trend in monitored wells within the intervention catchment, relative to paired control catchments. Payment is calculated per enrolled and protocol-compliant hectare within the verified catchment.

Independent auditors validate environmental outcomes through groundwater testing and digital farm-level monitoring. An advisory board composed of agronomic, regulatory, and ESG experts supervises governance and ensures alignment between financial performance and environmental objectives. This integrated structure leverages subsidy support (5) to reduce private capital intensity, aligns stakeholder incentives (6) with measurable outcomes, and establishes a scalable financing mechanism for nitrate reduction across agricultural regions.

Stakeholders



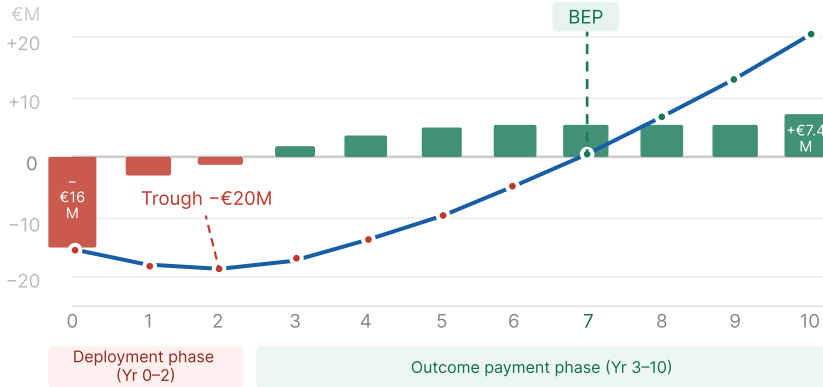
Expected Results

Environmental Impact: Achieved through substantial reductions in nitrate runoff and measurable improvements in groundwater quality. During Phase I, contamination levels in targeted regions are expected to decline by approximately 30% supported by a significant decrease in synthetic fertilizer dependency and enhanced soil stability.

Social Impact: Arises from improved drinking water safety and ecosystem resilience. More than four million residents within the pilot region benefit from lower contamination exposure, while agricultural communities gain access to modernized infrastructure that strengthens long-term productivity and regulatory compliance. Reduced nitrate exposure contributes to improved public health outcomes and enhanced environmental quality in rural areas.

Financial Impact: Realized through preventative cost efficiency. By reducing contamination at source, the fund is projected to generate annual water treatment savings ~€10 million within Rhineland-Palatinate and materially reduce the likelihood of EU penalty payments. The model aligns measurable public savings with structured investor returns, creating a financially sustainable impact cycle.

Financial Analysis



The fund commits €20M in total, drawn down across three capital calls over 24 months. The first call of approximately €20M is made at inception, covering bulk equipment procurement. Smaller follow-on calls in Years 1 and 2 fund remaining farm cohorts and monitoring infrastructure. These are not additional costs on top of fund size; they are the same capital, called in stages. Outcome payments begin in Year 3, once digital monitoring data verifies fertilizer reduction at farm level, triggering Stream 1 payments. Stream 2 follows in Years 4 and 5 as independent auditors confirm a directional NO₃ decline trend in monitored wells relative to paired control catchments. The fund reaches cumulative breakeven in Year 7. Private capital absorbs upfront execution and measurement risk. Public payers compensate only on verified results.

Scaleability

Phase I focuses on Rhineland-Palatinate over a ten-year period, establishing operational proof of concept and validating the performance-based compensation structure. With €20M deployed across 200,000 hectares, the phase builds the contractual templates, service provider relationships, and measurement protocols all subsequent phases depend on. Close collaboration with regional authorities, utilities, and health systems ensures contractual stability and data integrity. **Phase II** expands the model to additional German federal states with elevated nitrate exposure. Service provider infrastructure and monitoring protocols from Phase I scale without rebuilding operational capacity. Target fund size for Phase II is €80 to €100M, reflecting the larger addressable area and de-risked track record. **Phase III** targets selected EU member states, including France, the Netherlands, and Spain, where tightening Water Framework Directive enforcement is creating equivalent fiscal pressure on governments and utilities. Phase 1 is designed from day one to be replicated, not reinvented. The contractual templates, service provider relationships, measurement protocols, and payer agreements established in Phase I become the blueprint for every subsequent phase.

Unit Economics

Revenue per ton nitrate	950 €
Government	400 €
Water Treatment Plants	350 €
Health Insurance	200 €
Costs per ton nitrate	360 €
Equipment Amort.	150 €
Monitoring & Data	50 €
Field Ops	70 €
Verification	50 €
Fund Management	40 €
Net Profit per ton nitrate	590 €

Risk Analysis

Groundwater measurement lag Nitrate already in soil takes 5 to 15 years to reach monitored aquifers. Stream 1 is therefore tied to digital farm-level input data rather than groundwater, providing early cash flow independent of aquifer lag. Stream 2 targets directional trajectory improvement relative to paired control catchments, not absolute threshold attainment. **External attribution** Groundwater quality is affected by farms outside the portfolio, rainfall, and upstream sources. Every intervention zone is matched to a comparable non-intervention catchment, with change measured relative to that control, consistent with OECD attribution standards. **Outcome payer non-payment** Mitigated through multi-year framework contracts, diversification across three independent payer streams (no single payer exceeds 50% of revenue), and EAFRD co-financing creating accountability above state level. **Farmer retention** Farmers retain fertilizer cost savings of €100 to €250 per hectare per year, receive equipment at zero cost, and bear no financial downside. Three-year minimum service agreements with equipment residual value as collateral provide contractual continuity.

SDG Contribution

Main impact target



The fund primarily advances Sustainable Development Goal 6 by improving water quality and reducing contamination levels within groundwater systems.

Secondary contributions extend to climate mitigation through reduced fertilizer-related emissions, improved public health outcomes, and enhanced soil biodiversity under sustainable agricultural practices. By combining contractual discipline with verified environmental performance, the European Water Resilience Fund I establishes a scalable model for aligning financial returns with measurable ecological restoration.

Secondary impact target



Cuts chemical runoff and emissions from fertilizers, **reducing synthetic fertilizer use by up to 50%** and lowering CO₂ and N₂O emissions.



Lowers nitrate-related **health risks** across **4 million residents**, reducing **methemoglobinemia** incidence and **nitrosamine-linked cancer** risk.



Prevents **soil degradation** and boosts biodiversity by transitioning **200,000 hectares to sustainable agriculture**.

Potential Partners



Data & Advisory Partner xarvio® Field Manager provides field-specific fertilization recommendations and digital monitoring, generating verifiable agronomic data required for payment triggers.



Precision Ag Tech Division (Primary Service Provider) Supplies the fund's core infrastructure: variable-rate fertilizer applicators, StarFire™ GPS receivers, and the Operations Center™ platform for real-time farm-level data.



Corporate Bank, Sustainable Finance Desk – Green Impact Bond Structurer Germany's leading sustainable finance bank; ideally positioned to structure and co-invest in the Green Impact Bond mechanism underpinning the fund's revenue flow.

Additional Partners:
Morgan Stanley

