



 eFishery

Grow Together

Sustainability Report 2023

www.efishery.com

Disclaimer

We continue to foster growth as a leading aquaculture technology company in Indonesia and leading industry transformation globally. Through supporting farmers, eFishery provides best in class end to end support from input to harvest, empowering farmers to grow together.

This sustainability report is prepared by the Sustainability and Development Unit of eFishery Group with Indonesian operating company PT Multidaya Teknologi Nusantara (“eFishery” or “Company”). The information provided in this sustainability report is intended for general informational purposes only and reflects the ongoing commitment of the eFishery group (“eFishery Group”) to environmental stewardship and social responsibility as of the report’s date representing the financial year of 2023 (1 January - 31 December 2023). In the event of a discrepancy between the report and the underlying source (project or investment documentation, or other source) confirmed after the report publication, the latter prevails. All content (including, without limitation, the graphics, icons, and overall appearance of the presentation and its content) are the property of © eFishery.

Table of Contents

Disclaimer	1
Table of Contents	3

Sustainability at eFishery

About Sustainability Report	5
A Key Message from Our Chief Executive Officer & Co-Founder	7
Investors Messages	9
Farmers Message	10
ESG Performance Highlights	11
Sustainability Key Highlights	17
Awards and Recognitions	19

Introduction of eFishery

Vision and Mission	21
Company Values	22
History and Growth	23
Celebrating 10 Years of Growth and Innovation	24
Investment Growth: From Zero to Unicorn	25
Company Organizational Structure	27

Sustainability Framework

Sustainability Governance	35
Sustainability in Aquaculture	36
Sustainability Framework 2023 - 2060	37
Theory of Transformation	37
Focus Area	39
Our Impact	43
Our ESG Scorecard and Goals	45
Our ESG Initiatives and Strategic Investment Pipelines	47
Double Materiality Assessment	48

Economic Performance

Who We Are	53
How We Create Values	56
Our Operation	59
Business Scale	64
Sustainable Finance	64
Local Communities	65
Food Security	66
Living Income and Living Wage	67

Environmental Performance | Tech-Enabled Sustainable Aquaculture

Principles of Tech-Enabled Sustainable Aquaculture	73
Our Offer for Better Technology, Financing and Farming Ecosystem	76
Our Value Creation	101
Supply Chain and Traceability	107

Our Quality Products

Fish Product List, Description, and Benefits	113
Shrimp Product List, Description and Benefits	115
Initiatives & Investment Pipeline	117
Key Performance	126

Environmental Performance | Biodiversity and Climate Action

Biodiversity Commitment	131
Biodiversity Mitigation Plan & Protection Against Natural Ecosystem Conversion	133
Climate Risk Mitigation	135
Climate Scenario Analysis	139
Company Carbon Footprint	143
Blue Economy	145
Initiatives & Investment Pipeline	146
Key Performance	148

Social Performance | Thriving communities

Financing Product List, Description and Benefits	154
Human Capital Development	159
Company Organization Profile	165
Diversity, Equity and Inclusion	167
Human Rights	170
Women in Leadership	171
Women Economic Empowerment	173

Governance Performance

Good Corporate Governance	177
Guiding Principles	179
Risk Management	181
Anti Fraud and Anti Corruption	183
Data Privacy and Data Security	187
Environment and Social Management System (ESMS)	188
Our Key Partners	191

Our Impacts

eFishery Impact Highlights	195
Farmers Story Hub	199

Call to Action	203
Appendix	205



Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts



About Sustainability Report

Welcome to eFishery's inaugural Sustainability Report

This report reflects our commitment to transparency across our operations and supply chain. It details eFishery's sustainable performance from January 1, 2023 to December 31, 2023, and outlines our sustainability strategy, including key performance indicators, targets, and progress in environmental disclosures. Additionally, it showcases our contributions to the Sustainable Development Goals (SDGs). Moving forward, eFishery will consistently use this report to share information on sustainability performance, as well as our environmental and social activities. We believe the aquaculture sector plays a crucial role in providing safe and sustainable food. Therefore, we invite all stakeholders to actively participate in ensuring the accountability of eFishery's activities as we strive to achieve our vision and mission.

This report is exclusively available in digital format in English, enhancing both sustainability and accessibility. The eFishery website provides the latest updates on our sustainability initiatives, progress, activities, and achievements. Any revisions or updates to historical information will be appropriately disclosed.

This report has been prepared with reference to the following standards and guidelines.

- The Indonesian Financial Service Authority (Otoritas Jasa Keuangan) POJK No.51/POJK03/2017 on the Implementation of Sustainable Finance.
- The consolidated Global Reporting Initiative (GRI) Standard 2021
- The Global Reporting Initiative (GRI) Sector Standard 13: Agriculture, Aquaculture, and Fishing 2022
- The initial adoption of International Financial Reporting Standards (IFRS) S1 (General Requirements for Disclosure of Sustainability-related Financial Information) and IFRS S2 (Climate-related Disclosures) from the International Sustainability Standards Board (ISSB).
- Sustainability Accounting Standards Board (SASB) standards, specifically the Agricultural Products category
- United Nation Sustainable Development Goals (SDGs).

This report also includes a preliminary exploration of climate scenario analysis, offering insights into potential future climate impacts on our operations. This early-stage assessment is vital for understanding and preparing for various climate-related risks and opportunities.

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

Report Process Development & Quality

This report was prepared with a focus on the impact of our value chain on various stakeholders, including farmers, customers, governments, local communities and society at large. To ensure a comprehensive sustainability report that addresses critical information for both stakeholders and our business strategy, we involved external researchers and our internal sustainability team.

We regularly conduct assessments to identify the issues most important to our stakeholders, which in turn guide our Environmental, Social, and Governance (ESG) strategy. Currently, we are undertaking a double materiality assessment in compliance with the Corporate Sustainability Reporting Directive, based on the International Financial Reporting Standards (IFRS) and Global Reporting Initiative (GRI) Standards. These analyses are updated frequently to reflect changing conditions and to ensure a responsive approach to identifying critical ESG topics.

We emphasize accuracy, balance, clarity, reliability, and timeliness in our reporting processes. eFishery is committed to continuously improving the quality of information in this sustainability report and to enhancing the timeliness of its publication, enabling stakeholders to effectively incorporate this information into their decision-making processes.

We highly value the active involvement of our stakeholders, including employees, local communities, customers, farmers, academics, lenders, investors, suppliers, end consumers, governments, Non-Governmental Organizations (NGOs), international organizations, and media. We are dedicated to consistently listening to and responding to stakeholder feedback during the preparation of our sustainability reports, ensuring that the information presented is both balanced and reliable. For more details on our double materiality assessment, please refer to section Double Materiality Assessment.



Continuous Improvement & Accountability

This report is a vital communication tool for our investors and private company partners, who have played a crucial role in our shared journey toward sustainability. We believe this document effectively highlights our achievements and demonstrates our alignment with the expectations of our external stakeholders. The content has been thoroughly reviewed and approved by eFishery's Executive Committee, Impact Committee, and relevant business unit leaders. In future sustainability reports, our materiality assessment will continue to be guided by annual reviews with external stakeholders.



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Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

A Key Message from our Chief Executive Officer & Co-Founder

I am proud to present the 2023 eFishery Sustainability report, highlighting our ESG initiatives across the three core pillars of our Sustainability Framework: Tech-enabled Sustainable Aquaculture, Biodiversity and Climate Action, and Thriving Communities.

Our mandate is to improve the lives of farmers through aquaculture, where technology plays a crucial role in sustaining protein production and eliminating hunger. We aim to support smallholder farmers from the beginning of their journey through to harvest, transforming aquaculture in Indonesia for the better. By leveraging our ecosystem, we contribute to eliminating hunger, reducing poverty, and serving as a force for good in the communities we touch globally. This is the legacy we have been building since our inception. For eFishery, this means actively extending positive impacts on both environmental and social fronts.

As we enter our 11th year, eFishery has demonstrated sustained growth and embarked on an even larger journey. Sustainability has been at the core of our mission since the beginning, using aquaculture to address hunger and transform livelihoods in rural communities. Significant progress has been made in making aquaculture more efficient and productive through eFishery's feeder, Artificial Intelligence of Things (AIoT) solutions and the creation of a holistic ecosystem that provides farmers with expanded access to financial services, farming inputs, and market opportunities. Our Sustainability Framework and commitments are firmly rooted in these foundations, guided by three key themes: tech-enabled sustainable aquaculture, biodiversity and climate action, and thriving communities. As a leader in aquaculture technology, eFishery recognizes that sustainability is essential not only for our business success and growth but also for our commitment to responsible corporate practices that benefit our employees and communities globally.

Founded in 2013, eFishery began as a smart-feeding company using sensors to monitor the appetite of fish and shrimp, delivering feed only when needed. This innovation led to a 24%¹ reduction in feed costs, decreased pollution, reduced carbon footprint, and improved fish health. Since then, eFishery has evolved beyond its original feeding technology to offer a comprehensive range of solutions, including feeder units, financial access, access to quality inputs, disease monitoring, and enhanced market access with better prices and fairer conditions.



Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts



Over the past decade, we have developed numerous initiatives, products, and services to solve existing problems in the industry. We position ourselves as trailblazers; the first aquaculture technology company in Indonesia when others focused on consumer tech, the first to introduce AIoT in agriculture when others concentrated on apps, and the first to provide end-to-end solutions in rural areas when most served urban populations.

Working with over 44,000+ farmers groups across Indonesia, eFishery aims to create the largest digital farmers' cooperative, a collaborative farmers network who leverage digital tools and technologies to enhance their aquaculture practices, optimize production, and improve economic outcomes. A digital farmers' cooperative is an innovative model that leverages technology to connect farmers, streamline operations, and provide access to resources that were previously only available to larger operations. This transformation changes the landscape for smallholder farmers, who make up 80-90% of the global aquaculture industry. Through our network of enrolled farmers, eFishery utilizes production data from over a million ponds to accurately forecast feed requirements and negotiate bulk purchases at competitive prices, typically reserved for largest operations. This comprehensive farm data also enables eFishery to develop credit ratings for farmers, offering them fair loan options as a preferable alternative to the costly loans traditionally provided by feed distributors.

Reflecting on our sustainability journey, I am proud of the strides eFishery has made in our commitment to a more sustainable future. Our dedication to environmental stewardship and social responsibility remains unwavering and it is at the heart of everything we do. Sustainability is integral to our mission and operations.

This year, we expanded our domestic and export markets, coupled with Certification and Aquaculture Improvement Programs, achieving a total production of 242,245,164 kg of fish and shrimp, total 369,292 ponds connected to technology, and a total financing² of \$42,412,539 in 2023. With economic performance exceeding IDR 6.3 trillion from fresh products, eFishery contributes for 2.19% of Indonesia's aquaculture and fisheries sector GDP.

we embarked on our journey toward net zero by starting our baseline in 2023 focusing on Scope 1, Scope 2, and Scope 3 emissions, and protecting biodiversity near fish and shrimp farms. Our efforts also include strengthening our social impact within communities through continuous financing, market access for our farmers, and initiatives related to food security, increasing fish and shrimp protein consumption, and eliminating hunger. For more details on our programs and project pipelines, please refer to the Sustainability Framework section. For more details on company, product and services impact, please refer to our Impact Report.

These achievements would not have been possible without the contributions of eFishery employees, whose dedication and hard work have been instrumental in achieving these goals. With over 2,008 employees across Indonesia and India, we have developed ethics and integrity programs, alongside comprehensive policies that guide our efforts and ensure accountability. These include a stringent company code of conduct, zero tolerance for child labor and forced labor, a supplier code of conduct, environmental guidelines, ethical sourcing protocols, robust community support frameworks, and compliance with IFRS, GRI and SASB standards.

eFishery has been recognized by Sustainalytics for its sustainable finance framework, which aligns with the Sustainability Bond Guidelines 2021, Green Bond Principles 2021, Social Bond Principles 2023, Green Loan Principles 2023, and Social Loan Principles 2023. This acknowledgment highlights our commitment to integrating robust sustainability practices into our financial strategies and overall ecosystem.

As we continue on this journey, we remain committed to advancing sustainability, fostering innovation, and collaborating with stakeholders to build a more resilient and sustainable future for all.

Gibran Huzaifah Amsi El-Farizy
CEO and Co-Founder, eFishery

¹ Reduction in feed costs reflects both the total feed saved through technology adoption and improved practices, internal research.

² In this Sustainability Report, the term "financing" refers to the Kasih, Bayar Nanti (Kabayan) product by eFishery, which provides farmers with easy and secure access to financial institutions registered and supervised by OJK. This financing option allows farmers to purchase feed and non-feed inputs at competitive prices with flexible payment terms that extend until harvest time.

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

Investors Messages

As a fund focussed on investing along the aquaculture value chain in order to transform the industry into one that is healthier and more sustainable, we knew technology adoption was going to play a big role in getting us there when we started investing in 2015.



That same year eFishery became our first aquatech investment – through optimizing feeding, saving farmers up to 34% of feed each cycle, they were already making a major difference environmentally, economically and socially when we invested, but even in the early days they knew that the production data they captured was going to be the real key to industry transformation. eFishery's technology serves the farmer, enabling them to produce optimally, resulting in higher quality product, positive environmental impact and increased profitability, while the data gathered offers market access and financing to farmers facilitating traceability across the supply chain.

The company is a great example of technology transforming an industry and showing that a more just and environmentally sustainable food system is ultimately better economically. Ninety percent of aquaculture producers are small scale farmers. Through offering production insights and access to these farmers, and connecting them via the cloud, eFishery's platform empowers them to demonstrate that more sustainable practices, including less resource waste, improved water quality, and monitoring for disease brings better results across the board and works to transition the aquaculture industry to our lowest footprint, most nutritious food system. Through providing hardware and software solutions, while building an ecosystem of industry and supply chain partners, the company has developed a solid framework where their platform brings a fully integrated model to farmers, connecting them to the global supply chain.

Amy Novogratz
Aquaspark

I am delighted to reflect on our investment journey with this remarkable company, its co-founders Gibran and Chrisna, as well as the eFishery team.



From the outset, our partnership with eFishery has as its foundation our shared vision of transforming Indonesia's large and relatively unaddressed aquaculture sector by providing innovative technological solutions to rural fish and shrimp farmers. We are thrilled with the progress made thus far and eagerly anticipate the future growth and development that lies ahead for the company.

eFishery's unwavering commitment to sustainability has been a cornerstone of its operations. By improving the farmers' access to technology, innovative feeding solutions, and a transparent marketplace for farming inputs and outputs, eFishery has improved the sustainability of said farming operations, while empowering these communities to become more productive and self-sufficient. Additionally, the company's efforts to ensure transparency in pricing and access to credit have further enhanced the economic opportunities for these farming communities.

The leadership at eFishery is driven by a mission to create positive change. Their dedication to doing good for rural fishing communities is evident in every aspect of their work. By driving value creation for all stakeholders, both within the farming communities and within the company itself, eFishery has established itself as a leader in Indonesia's aquaculture industry. The company's focus on its stakeholders' value ensures that the benefits of its innovations are felt widely and deeply.

eFishery is not only changing lives at the individual farmer level but is also revolutionizing Indonesia's aquaculture industry. The impact of eFishery's work extends far beyond the respective farming communities, as the company sets new standards for sustainable and equitable aquaculture practices across the country. We are proud to be part of this journey and look forward to continuing our support for eFishery as they lead the way in transforming the aquaculture landscape in Indonesia and beyond.

Adrian Foo
Argor

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts



Farmers Messages



Mujahid, Fish Farmer
Tasikmalaya, West Java, Indonesia

Since I joined eFishery in 2021, my experience has been transformative. Utilizing the eFeeder and financial products like Kabayan, Tarik Ikan, and the Kabayan Super Ecosystem (KSE) has been instrumental in expanding my operations. As an agent for feed and seed, I have witnessed firsthand how secure access to capital has allowed me to scale up from 6 ponds to 150 ponds over four years. This growth has turned me from a local farmer into a district-level operator, demonstrating what #TumbuhBersama—"Growing Together"—truly means.

The support from the eFishery field team has been exceptional; they are responsive and genuinely care about the challenges we face. Timely feed deliveries and engaging social events like farmers' learning gatherings have fostered a strong sense of community and knowledge-sharing among us.

As eFishery continues to expand, I hope to see a streamlined approach in field operations and more innovations that directly benefit farmers, such as enhanced market access and value-added products. My aspiration is for eFishery to lead the market in transitioning from live to fresh or frozen fish products, cementing its role as a pioneer in aquaculture industry.



Mohammad Abdul Raheem, Fish Farmer
West Godavari, Andhra Pradesh, India

I have been farming for the past six years and was introduced to eFishery by a Field Commercial Officer from West Godavari. I became the first farmer from that region to join eFishery. Before eFishery, I faced numerous challenges in my aquaculture practices, including difficulties with purchasing feed. When the Field Commercial Officer explained the Aqua Mitra business model—offering advanced farming technology, reliable feed, financial support, and more—I saw the potential in eFishery's solutions.

With better access to feed, technology, and best practices, I realized I could significantly improve my farming operations and increase my yields. Previously, I experienced losses and earned only \$2.5 per acre per day. However, after joining eFishery, I received quality seed, timely feed, and continuous technical support from Farm Ambassadors. I no longer had to worry about harvest materials or payment issues. Thanks to this comprehensive support, I now achieve a profit of \$9 per acre per day and have renewed my partnership with eFishery for continued support.



Evi, Shrimp Farmer
Tasikmalaya, West Java, Indonesia

eFishery has brought tremendous ease and productivity improvements to my shrimp farm. With the ability to monitor pond conditions using eFishery's feeder technology, I have not only seen my farm grow but also witnessed the positive impact on the surrounding communities. Through my journey with eFishery, I have learned the importance of sustainability practices, benefiting both my business and my community.

My successful harvest is just the beginning. Thanks to eFishery's support, local communities around me, including seaweed producers, have transformed into thriving medium-sized enterprises. Moreover, eFishery's mangrove forest conservation efforts have ensured that my local environment is well-maintained, restored, and protected.

The impact of my shrimp farm extends beyond my family to the community, the environment, and even people thousands of miles away. That's what it means to run a sustainable business. With eFishery, we truly grow together, creating a better future for all.



Isa, Fish Farmer
East Lombok, West Nusa Tenggara, Indonesia

I am not only a dedicated fish farmer but also a school principal and teacher in East Lombok. The success of my fish farm has enabled me to support my school, helping it sustain and grow, which positively impacts both my family and the broader community.

I started fish farming in 2017, but it was not until I partnered with eFishery in 2020 that I found an effective way to balance my dual responsibilities. Before eFishery, managing my fish farm alongside my school duties was a significant challenge. The introduction of eFeeder technology was a game-changer, allowing me to feed my fish remotely and schedule feeding times while I was at school. As a result, my fish farm has expanded from 3 ponds to 10 ponds today.

I believe that the sustainability of my fish farm directly contributes to the well-being of those around me—my family, the school, and the wider community. This belief aligns perfectly with eFishery's ethos of growing together in a sustainable way.



Darmansyah, Shrimp Farmer
Sumbawa, West Nusa Tenggara, Indonesia

I originally a village secretary, discovered my passion for shrimp farming after being introduced to eFishery. I started by renting two ponds, and after implementing eFeeder technology, I achieved a good 1.1-1.3 FCR (Feed Conversion Ratio), which significantly reduced my operational costs. My first sales after using eFishery totaled approximately IDR 140 million, and by my fifth harvest, that amount had grown to IDR 340 million. Today, I own 4.2 hectares of ponds and plan to continue expanding them. Farmers from various regions often come to me to learn the secrets of my success.

I embody the spirit of growing together, a principle that resonates deeply with eFishery. My shrimp farming business benefits not only me but also the people around me. As I like to say, "It's not only about the money, but it's also about being beneficial to others."

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

ESG Performance Highlights

2023 Achievement Highlights

Economic Performance

revenue
IDR **10,814,062,104,605**
USD **701,632,092.93**

financing to farmers
IDR **653,831,708,088**
USD **42,412,539** **↑47.7%** YoY Growth

GDP Indonesian Aquaculture & Fisheries Contribution Sector **2.19%** in 2023

Environment Performance

242,245,164 Kg of fish and shrimp were sold and traded with improved traceability systems in place

369,292 ponds connected with technology

~80% survival rate (SR) in production efficiency, with a feed conversion ratio (FCR) of **1.1-1.3**

Social Performance

44,000+ farmers and farmers groups, with **↑191% YoY growth** in farmers membership.

15,191 farmers received Kabayan financing.

222,546,289 Kg of feed saved through the use of eFeeder technology.

Carbon footprint calculation **188,348** tCO2e/year

Total employees **2008** with 1,970 based in Indonesia and 38 in India.

Governance Performance

- ESG Governance and Impact Committee structure
- Sustainability Framework
- Governance, Risk and Compliance Department structure
- Minimum to none anti corruption, anti fraud cases found
- Development of Environment Social Management System
- Sustainalytics' Second Party Opinion on the Sustainability Framework
- Environmental and Biodiversity Protection Policies

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

ESG Company Commitment



Tech-enabled Sustainable Aquaculture

Achieve **100%** traceability for all fish and shrimp sold and traded by 2025
Supply chain and traceability

1 million ponds connected to eFishery's technology and ecosystem by 2030
Climate adaptation and resilience

1 billion kg production of fish and shrimp contributing to 5% of the national GDP in the aquaculture sector by 2035
Sustainable production

1 million kg of certified products by 2030
Sustainable production

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

ESG Company Commitment



Biodiversity and Climate Action

1 billion kg
feed saved by 2040
Climate adaptation and resilience



Achieve **net zero emissions** by 2060 through ongoing and rigorous greenhouse gas (GHG) reduction initiatives across all aspects of our operations
Emissions

Safeguard and reforest **100,000Ha** of mangroves by 2040
Biodiversity



Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

ESG Company Commitment



Thriving Communities

100,000
farmers groups
connected by 2030
Economic inclusion



100,000
farmers
receive financing by 2040
Living income and living wage



100 million USD
funds delivered by 2030
Economic inclusion



Eliminate hunger and enhance food security in 100 regions by 2050
Food security



Support **1 million** community members by enhancing food security and eliminating hunger through our sustainable aquaculture initiatives by 2050
Food security



Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

ESG Scorecard

eFishery is dedicated to driving positive, sustainable impact through a strategic focus on three core areas: technology-enabled sustainable aquaculture, biodiversity and climate action, and thriving communities. By prioritizing these areas, we aim to foster resilient business growth while actively working to create a better future for both the environment and society.



Tech-enabled Sustainable Aquaculture | Environment



Sub Focus Area	Goal	Measurement Metrics	2021	2022	2023
Supply Chain and Traceability	Achieve 100% traceability for all fish and shrimp sold and traded by 2025	Fish and shrimp sold and traded with improved traceability (kg)	35,485,147	114,955,514	242,245,164
Climate Adaptation and Resilience	1 million ponds connected to eFishery's technology and ecosystem by 2030	Total ponds connected with eFishery's technology and ecosystem (unit)	117,508	253,953	369,292
Sustainable Production	1 billion kg production of fish and shrimp contributing to 5% of the national GDP in the aquaculture sector by 2035	Total production volume of fish and shrimp in kg, % contribution to national aquaculture GDP and economic impact of the fish and shrimp production	35,485,147	114,955,514 ↑ 1.55%	242,245,164 ↑ 2.19%
Sustainable Production	1 million kg of certified product by 2030	Total certified products in kg	-	-	62,000

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

Biodiversity and Climate Action | Environment



Sub Focus Area	Goal	Measurement Metrics	2021	2022	2023
Climate Adaptation and Resilience	1 billion kg feed saved by 2040	Feed saved (kg) from use of eFishery technology and ecosystem	129,939,154	190,966,539	222,546,289
Emissions	Achieve net zero emissions by 2060 through ongoing and rigorous greenhouse gas (GHG) reduction initiatives across all aspects of our operations	GHG emissions scope 1 and 2 reduction (tCO2e/year)	N/A, calculation is not started	N/A, calculation is not started	188,348 tCO2e
Biodiversity	Safeguard and reforest 100,000 Ha of mangroves by 2040	Mangroves protected and reforested (Ha)	0	0	1,000 trees planted with ongoing monitoring

Thriving Communities | Social



Sub Focus Area	Goal	Measurement Metrics	2021	2022	2023
Economic Inclusion	100,000 farmers group connected by 2030	Indonesian farmers and farmer groups connected to eFishery technology and ecosystem Indian farmers and farmer groups connected to eFishery technology and ecosystem	7,000+	23,000+	44,000+
Living Income and Living Wage	100,000 farmers receive financing by 2040	Farmers receiving financing	4,094	9,025	15,191
Economic Inclusion	100 million USD funds delivered by 2030	Funds received by farmers (IDR) Funds received by farmers (USD)	214,237,407,720 15,018,390	442,486,742,866 28,129,223	653,831,708,088 42,412,539
Food Security	Support 1 million community members by enhancing food security and eliminating hunger through our sustainable aquaculture initiatives by 2050	Community members supported access to better food security and eliminated hunger risks	350	400	1201
Local Communities	Eliminate hunger and enhance food security in 100 regions by 2050	Food security and eliminating hunger area supported (n)	2	2	3

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts



Sustainability Key Highlights

eFishery is committed to driving sustainable business strategies that align with the UN Sustainable Development Goals (SDGs). Our efforts focus on ensuring food security through the aquaculture industry, improving the welfare of local communities and farmers, and maintaining environmental sustainability. These initiatives are realized through strategic collaborations with educational and research institutions, financial partners, and the development of modern aquaculture products and services. Our key sustainability highlights are summarized as follows:

Sustainable Aquaculture



Launch of eFishery three core pillars of the Sustainability Framework
Tech-enabled Sustainable Aquaculture, Biodiversity and Climate Action, and Thriving Communities.



Leading Journey to Certification
Partnering with the Aquaculture Stewardship Council to develop Aquaculture Improvement Programs for shrimp farmers and integrate eFishery's data collection systems with a seamless digital audit process, enhancing efficiency, accuracy and transparency.



eFishery's Journey to Net Zero
Establishing targets and timelines to achieve net-zero emissions and nature-positive fish and shrimp products, while actively reducing the company's overall carbon footprint.



Leading the Journey to Certification
Supporting fish and shrimp farmers in achieving Best Aquaculture Practices (BAP) certification.



eFishery's First Establishment in India
Expanding operations to support fish farmers, building on the success of our initiatives in Indonesia.



Leading Aquaculture Improvement Programs
Enhancing production practices to achieve a Seafood Watch yellow rating or equivalent by 2028.

Sustainability at eFishery

- Introduction of eFishery
- Sustainability Framework
- Economic Performance
- Environmental Performance
- Social Performance
- Governance Performance
- Our Impacts

Company ESG & Impact



Established Sustainability & Development Unit
Setting new benchmarks for responsible aquaculture practices. Our robust achievements underscore our commitment to integrating sustainable solutions and fostering industry growth.



Established eFishery Foundation
Elevating eleven years of growth to the next level. We have significant impacts by transforming sustainable practices, leveraging farming communities, and addressing national and global challenges through a combination of cutting-edge aquaculture technology and financial access expertise.

Sustainable Finance



Launched Digital Multi-Party Farmers Cooperative (Koperasi Multi Pihak)
digital blockchain based, to build a comprehensive ecosystem that encompasses investors, funders, and partners—including suppliers, feed agents, feed factories, as well as fish and shrimp farmers



Secured IDR 100 Billion in Funding
Qazwa is partnering with eFishery to provide financing for over 30,000 fish farmers.



Extending Financial Access to Farmers
Bank OCBC NISP has disbursed a bilateral loan worth IDR 250 billion to eFishery. This support aims to enhance national food security through the aquaculture sector and increase exports.



Acknowledgement from Sustainalytics
Recognized for our comprehensive review of end-to-end ecosystems in leveraging our Sustainable Finance Framework.

Innovative Research and Development



Announced Commitment to National Research Innovation
In collaboration with the National Research and Innovation Agency (BRIN), we signed a memorandum of understanding to advance technology-based entrepreneurial ecosystems.



Committed to National Aquaculture Innovation
Through eFishery Academy, we have signed a Memorandum of Agreement with the School of Electrical and Informatics Engineering at Bandung Institute of Technology to enhance student skills and support cutting-edge aquaculture research

Sustainability at eFishery

Introduction of eFishery

Sustainability Framework

Economic Performance

Environmental Performance

Social Performance

Governance Performance

Our Impacts

Awards and Recognitions



Winner of the ASEAN Business Awards (ABA) 2023
Recognized in the Food Security Category under the Tech for Sustainable Agriculture pillar by the ASEAN Business Advisory Council.



Winner of the EY Entrepreneur Of The Year 2023 Indonesia
CEO & Co-Founder of PT Multidaya Teknologi Nusantara (eFishery) awarded the High-Impact Entrepreneur Award by EY.



Received Special tribute as Endeavor Entrepreneur
Honored for exceptional scale and embodiment of Endeavor Global's core values at The Lindas at Endeavor Gala 2023.



Winner of the Gatra Awards 2023
Recognized in the Economic Category as a unicorn company for successfully building a sustainable aquaculture ecosystem in Indonesia by Gatra Media Group.



Winner of the AgResults Indonesia Aquaculture Challenge Project
Awarded for technology application for smallholders in an aquaculture competition led by Deloitte, with funding from the Australian Government, Bill & Melinda Gates Foundation, Canadian Government, UKAID, USAID, and World Bank Group.



Listed on Prestige Indonesia's IT List 2023
Recognized for transforming fish and shrimp farming with revolutionary smart technology by Prestige Indonesia.



Recipient of the Ecommurz Award 2023
Best Work-Life Balance.



About eFishery

(C1, 2-1)



Vision

To eliminate world hunger by harnessing the potential of aquaculture, making it a sustainable and primary source of animal protein.



Mission

Bridging the Digital Gap, Meeting the World's Food Needs

Our mission is to ensure global food security through aquaculture by offering affordable technological solutions to tackle fundamental challenges. We aim to reduce disparities and promote inclusivity through digital economics, making sustainable and nutritious food accessible to all.

Company Values

At eFishery, our core values guide our operations and reinforce our commitment to a sustainability-oriented business. These values ensure that we not only address challenges in the aquaculture sector but also create meaningful benefits for the world.



Entrepreneurial Mindset

The value encourages us to continually seek innovative solutions for challenges in the aquaculture sector, ensuring that each product and service delivers tangible benefits to the world.



Farmer First

We prioritize farmers' needs, building the philosophy that their success is integral to eFishery's success. This approach fosters effective, efficient and mutually beneficial business interactions for all parties involved.



Impactful Results

We are committed to achieving a significant positive impact on the environment and society.



Speed in Execution

We started eFishery from humble beginnings, and from the outset, we have prioritized doing things quickly and efficiently. Whatever tasks we undertake, we strive to execute them as swiftly as possible, continuously improving and evolving our processes.



Honesty and Integrity

These values are the foundation of all interactions and decision-making processes, ensuring that every employee is responsible and trustworthy in all situations.



Effective & Efficient Communication

eFishery prioritizes two-way communication with all stakeholders to ensure that we consistently hear and respond appropriately to their needs.



Rapid Growth & Innovation

As we grow together, we will continue to expand rapidly and innovate more effectively.



Your Action Matters

We believe that every small step contributes to significant changes in addressing global food challenges.

eFishery's values underpin our sustainability-focused business approach, enabling us to grow rapidly and innovate while remaining accountable to both environmental and social responsibilities.



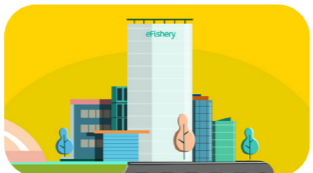








History and Growth

(C3, 201-1)

Over 10 years of growth and development, we have consistently demonstrated our commitment to advancing and utilizing aquaculture technology to address global food challenges. Founded in October 2013, our journey began with the development and testing of the eFeeder prototype, marking a significant milestone in our efforts to enhance the efficiency and productivity of fish farming. Building on the success of eFeeder, we have continued to innovate and improve, leading to the mass production of eFeeder Fish, the development of eFeeder Shrimp to support shrimp farmers, and the establishment of new business units, such as eFresh, to enhance fish production distribution.

eFishery's success in growth and development is evident not only in our achievements in technology-based products and services but also in our commitment to delivering social and economic impacts. Through the Kabayan program, we offer safe and accessible financial solutions to farmers. Additionally, eFishery Point, a key component of our support and value distribution network, has expanded to over 192 regencies and cities across Indonesia. Since 2021, we have focused on advancing sustainable and inclusive food solutions by prioritizing fish and shrimp distribution and developing fishery products.

We ensure that our innovations and strategic decisions always prioritize the needs of farmers and environmental sustainability. Over the past decade, we have evolved from a startup operating out of a rented house, and into a unicorn with a valuation of USD 1.4 billion. This achievement demonstrates that with a clear vision, mission and unwavering commitment, eFishery's positive impact on the aquaculture sector is both significant and real. We remain dedicated to our primary goal of leading efforts to address global food challenges and enhance the welfare of communities worldwide.

<p>2013</p>  <p>eFishery was initiated by the founders in October.</p>	<p>2014</p>  <p>Early development stages, including research and testing of eFeeder prototypes, with only 3 founders.</p>	<p>2015</p>  <p>Starting from a rented house, eFishery grew and established its first headquarters and warehouse to expand production and sales.</p>	<p>2016</p>  <p>eFishery started mass producing eFeeders and officially launched this product for all Fish Farmers in Indonesia.</p>
<p>2017</p>  <p>eFeeder Shrimp was launched to support shrimp farmers in the feed distribution process, complementing the range of eFeeders available for commercial use.</p>	<p>2018</p>  <p>eFishery established a new business unit, eFresh, with the goal of providing a more even distribution of freshwater fish products across the country.</p>	<p>2019</p>  <p>eFishery launched the Kabayan program to help fish farmers gain access to financial institutions registered and supervised by the OJK (Indonesian Financial Services Authority).</p>	<p>2020</p>  <p>eFisheryPoint was first established and continues to grow to reach 280 cities/regencies in Indonesia.</p>
<p>2021</p>  <p>eFishery renewed its business focus into three main areas: distribution of fish and shrimp products.</p>	<p>2022</p>  <p>eFishery introduced eFarm and eFeeder 5 and has grown with a team of more than 2,000 eFisheryans who contribute to the company's success.</p>	<p>2023</p>  <p>eFishery achieved "unicorn" status with series D funding of US\$200 million, becoming the first startup in the aquaculture industry with a valuation of US\$1.4 billion. eFishery launched a digital farmers cooperative.</p>	



Celebrating 10 Years of Growth and Innovation

Over the past decade, eFishery has evolved from a pioneering startup into a leading force in the aquaculture technology sector. Since our inception in 2013, we have transformed fish and shrimp feeding practices with our smart-feeding technology, significantly enhancing feed efficiency, reducing costs, and minimizing environmental impact. Our innovative solutions have not only improved the productivity and sustainability of aquaculture operations but have also set new industry standards.

We have expanded our offerings to include comprehensive support services such as loans, access to high-quality inputs, and disease monitoring, establishing ourselves as a full-service partner for fish farmers. Today, we proudly support over 44,000+ farmers and farmer groups across Indonesia and India.

eFishery has made substantial strides in community development and environmental stewardship through the eFishery Foundation. Our initiatives have empowered local communities, promoted responsible aquaculture practices, and driven impactful research.



The past ten years have been marked by significant achievements, including the successful implementation of our sustainability programs and the establishment of strategic partnerships. Looking ahead, we remain dedicated to advancing our mission of fostering sustainable growth and innovation in aquaculture, continuously striving to create positive, lasting change for our stakeholders and the broader ecosystem.

As we celebrate this milestone, we reflect on the dedication that has brought us to this point: our unwavering commitment to feeding the world through aquaculture, providing affordable technology, and creating an inclusive digital economy. This celebration embodies our belief in "growing together" and the realization of our vision. It is a testament to our shared progress and the impact we have made on the industry.

Investment Growth (C3, 201-1) From Zero to Unicorn

eFishery's journey from its inception to becoming a Series D unicorn has been extraordinary. From the outset, our innovative solutions quickly gained traction, delivering significant cost savings and environmental benefits to farmers. By focusing on technological excellence and addressing critical industry needs, eFishery established a strong foundation for growth.

Our early successes in solving real-world problems in aquaculture attracted significant attention from investors, enabling us to scale operations and expand our product offerings. As we advanced through successive funding rounds, eFishery solidified its position as a leader in the industry. The Series D funding round was a pivotal moment, validating our business model and growth potential.

Strategic expansion into new markets, combined with our comprehensive support services and community-focused initiatives, further enhanced our reputation. Achieving unicorn status not only underscores our remarkable trajectory but also highlights our commitment to driving innovation and sustainability in aquaculture.

With a robust financial foundation and a clear vision for the future, eFishery is well-positioned to continue its impactful journey and lead the way in transforming the global aquaculture industry.

2015 eFishery (through its holding company, i.e. eFishery Pte. Ltd.) conducted **Pre - Series A** fundraise and successfully **raised \$750,000.**

2018 eFishery (through its holding company, i.e. eFishery Pte. Ltd.) conducted **Series A** fundraise and successfully **raised \$4,000,000.**

2020 eFishery (through its holding company, i.e. eFishery Pte. Ltd.) conducted **Series B** fundraise and successfully **raised \$19,550,000.**

2022 eFishery (through its holding company, i.e. eFishery Pte. Ltd.) conducted **Series C** fundraise and successfully **raised \$90,000,000.**
eFishery further received a loan facility from Bank DBS amounting to IDR 500,000,000,000.

2023 eFishery (through its holding company, i.e. eFishery Pte. Ltd.) conducted **Series D** fundraise and successfully **raised \$200,000,000.**
eFishery further received loan facility from several banks, i.e. Bank HSBC amounting to \$30,000,000, Bank OCBC amounting to \$10,000,000 and IDR 100,000,000,000, and Bank Shinhan amounting to IDR 100,000,000,000.



In 2013, when both Aquaspark and efishery got started, the sustainable aquaculture movement was also just beginning. Efishery offered a real solution that onboarded farmers and showcased the true potential and value of sustainable aquaculture. At the time they were the only affordable, investable technology solution we saw in the industry, where now almost 1/2 a million fish and shrimp farmers have joined their platform and digitalized aquaculture production is in demand across the global supply chain.

Amy Novogratz
Aqua Spark

In early 2022, we co-led eFishery's Series C funding round, driven by our strong belief in the aquaculture industry and its ability to help feed the world's growing population. Since then, we've seen firsthand the company's strong execution capabilities and impressive traction across all product segments. This reinforced our conviction to invest in their Series D funding round, which cemented eFishery as one Indonesia's leading unicorns.

Wei Xiang Lim
SoftBank

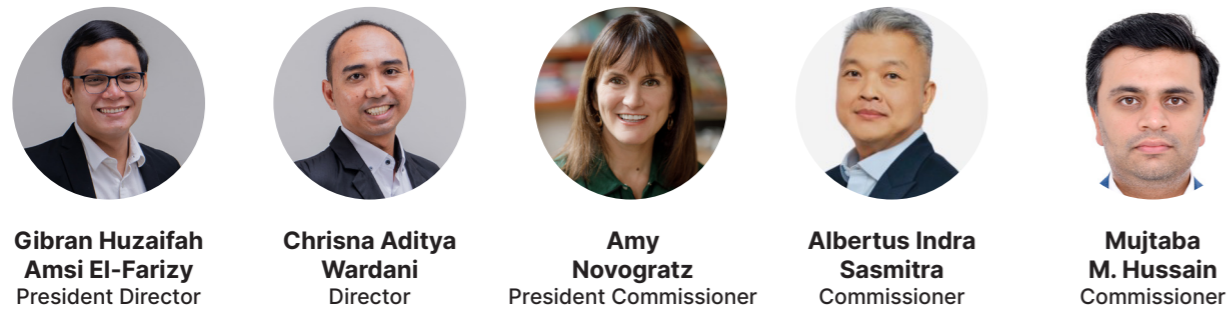




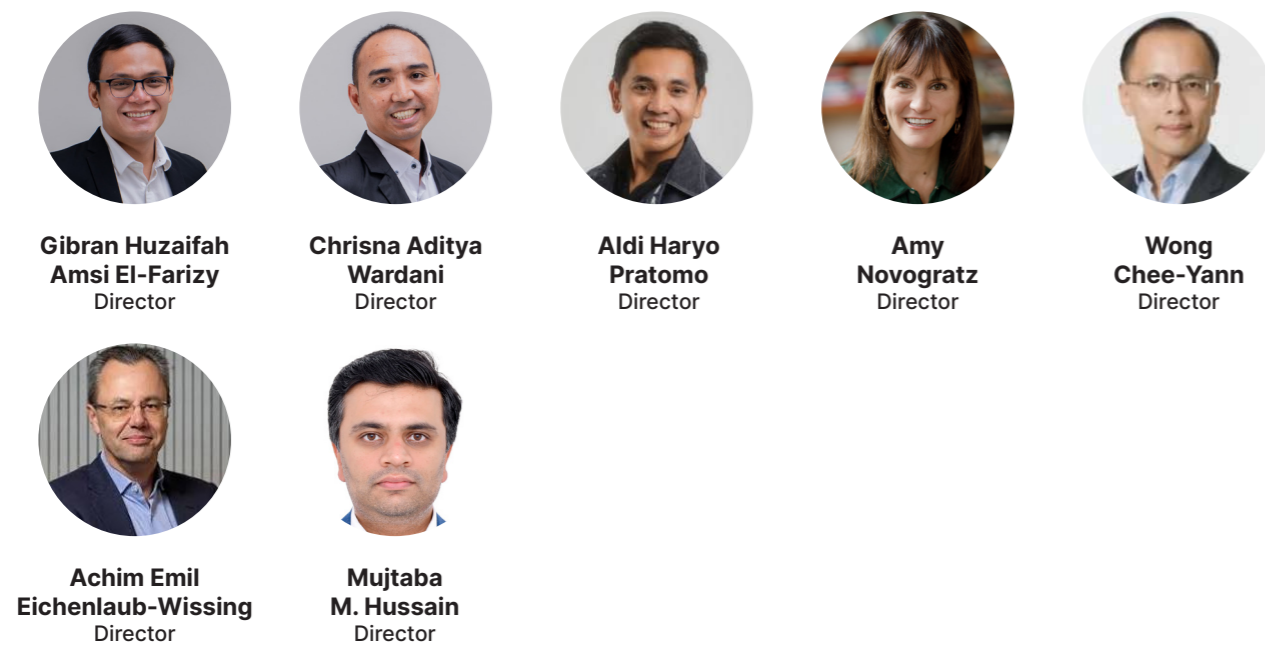
Our tech-enabled aquaculture company's organizational structure serves as a critical pillar driving our mission to revolutionize the aquaculture industry. This structure is thoughtfully designed to foster innovation, ensure operational efficiency, and promote sustainability across all levels. From top management to field operations, each team member plays a crucial role in advancing our sustainability goals, ensuring a balance between productivity and ecological responsibility.

eFishery is organized into four key departments: Fish Business, Shrimp Business, Product, and Financing. These core departments are supported by functional units, including Legal and Finance, Supply Chain, Governance, Risk and Compliance, Public Affairs, and the CEO's Office. This streamlined structure enhances operational efficiency and ensures that our efforts are closely aligned with the needs of farmers and our sustainability objectives.

Board of Directors and Board of Commissioners of the Company



Majority shareholder of the Company is eFishery Pte Ltd, with the following Board members:



Board of Directors - Experience and Skills

Name	Gibran Huzaifah Amsi El-Farizy	Chrisna Aditya Wardani	Amy Novogratz	Albertus Indra Sasmitra	Mujtaba M. Hussain
Title in eFishery Pte Ltd	President Director	Director	President Commissioner	Commissioner	Commissioner
Industry Expertise	Aquaculture Technology	Aquaculture Technology	Aquaculture	Private Equity	Private Equity
Organizational Leadership and Management	✓	✓	✓	✓	✓
Sustainability & ESG	✓	✓	✓	✓	✓
Impact Committee	✓	✓	✓		
Food System	✓	✓	✓		✓
Global Operation	✓	✓	✓	✓	✓
Risk Oversight & Risk Management	✓	✓	✓	✓	✓
Innovation & Change Management	✓	✓	✓	✓	✓
Regulation & Public Policy	✓	✓	✓	✓	✓
Board in Other Entity(ies)	✓	✓	✓	✓	✓
Gender Identity	Male	Male	Female	Male	Male
Ethnicity	Asian	Asian	American	Asian	Asian
Born Outside Indonesia			✓		✓

Department Structure

Representing the company's comprehensive structure as of September 2024, including all active roles

CEO

Shrimp Value Chain



Gibran Huzaifah Amsi El-Farizy
Chief Executive Officer (CEO)



Kristin Veriga
SVP of Shrimp Value Chain



I Made Yusdi
VP of Domestic Sales



Jayu Pramudya
VP of Transformation

Fish Value Chain



Junandar Panggabean
SVP of Fish Value Chain



Devandra
VP of Business Development Upstream



Yeri Afrizon
VP of Commercial Downstream



Jordy Herfandi
VP of Fish Commercial Strategy & Development

Product



Chrisna Aditya Wardani
Chief Product Officer (CPO)



Alvin Maulana
VP of Growth & Marketing



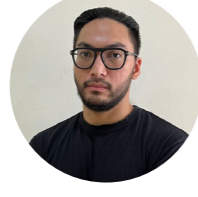
Andri Yadi
VP of AIoT & Cultivation



Imam Reiza
VP of Engineering



Rifan Kurnia
VP of Tech & Data



Arrad Fajri
VP of Product Commerce Enterprise

Financing



Diajeng Reisa
VP of Financing

Ops & Supply Chain Upstream



Cita Rezkiyani
VP of Ops & Supply Chain Upstream

Supply Chain Management Downstream



Cameron Maclean
VP of Supply Chain Management Downstream

Governance, Risk, Compliance



Mazlan Hashim
VP of Governance, Risk, Compliance (GRC)

Human Resource



Caecilia Adinoto
Chief Human Resource Officer (CHRO)

Finance and Legal



Erwina Tobing
SVP of Legal



Angga Hadrian
VP of Corporate Finance & Investor Relation

Public Affair



Muhammad Chairil
VP of Public Affairs

India Expansion

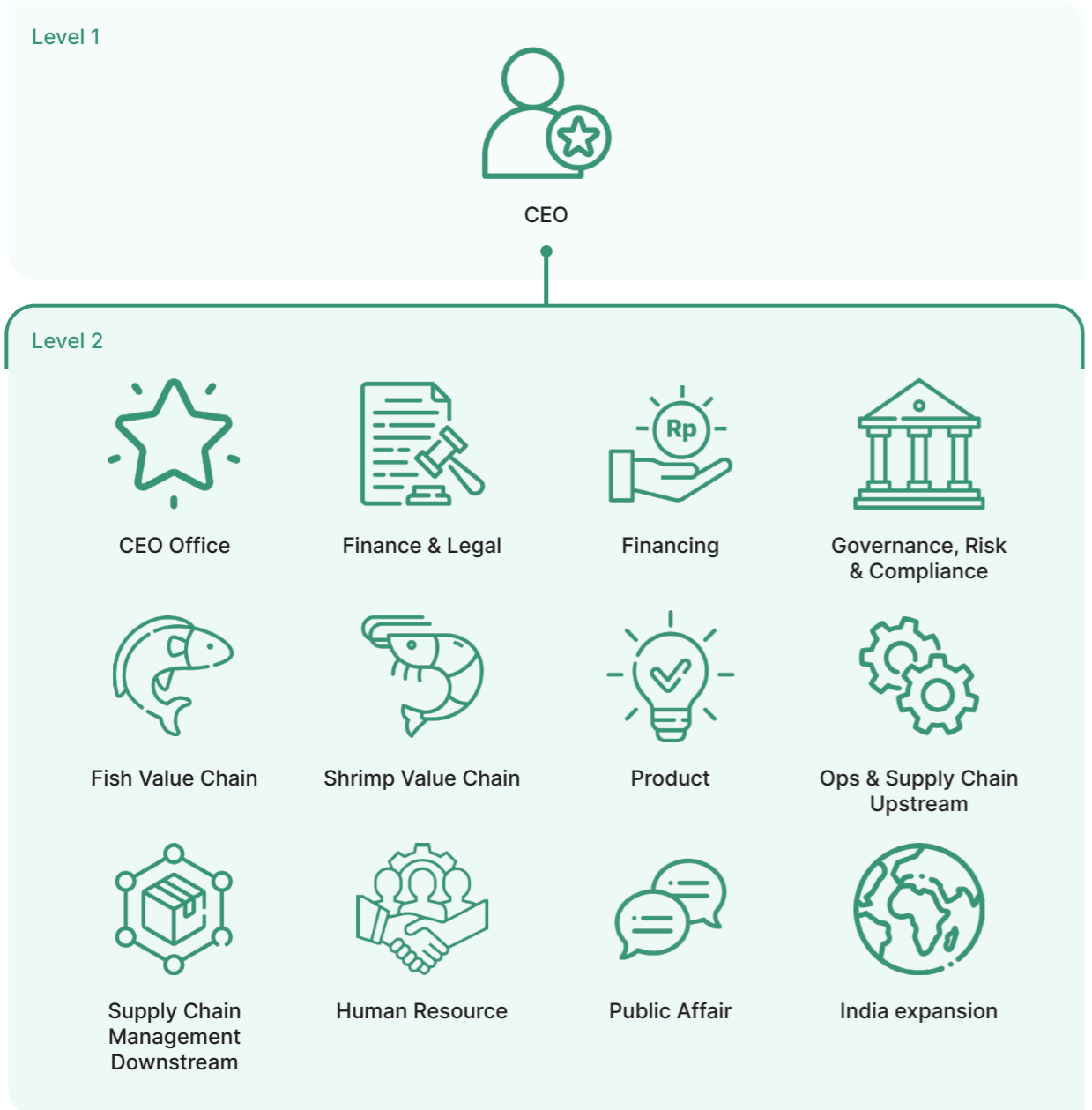


Putu Gede Kamayana
VP of India Expansion

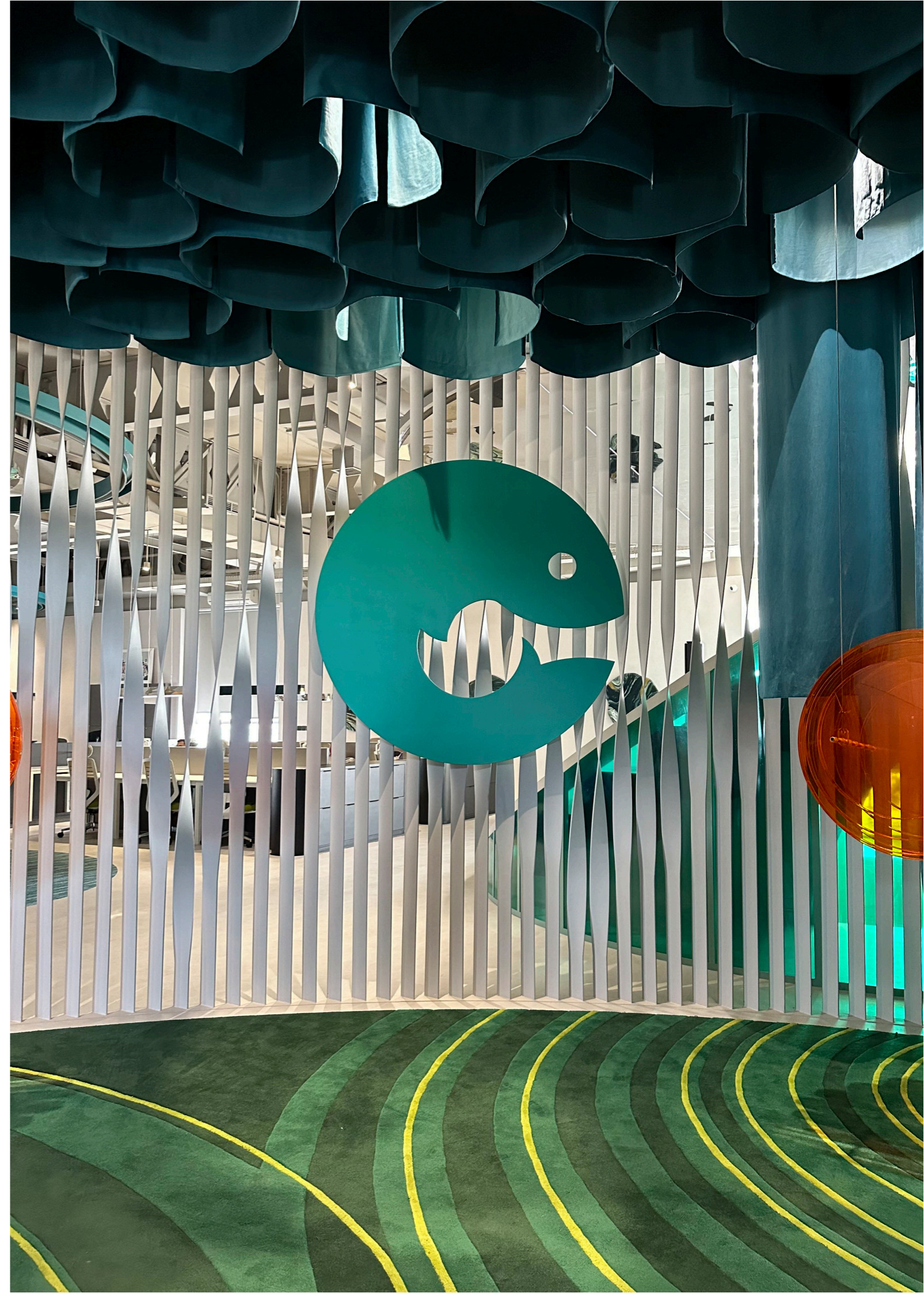
Department Leaders - Experience and Skills

Name	Gibran Huzaifah Amsi El-Farizy	Chrisna Aditya Wardani	Andri Yadi	Caecilia Adinoto	Erwina Tobing	Mazlan Hashim	Junandar Panggabean	Kristin Veriga	Diajeng Reisa	Cita Rezkiani	Cameron Maclean	Putu Gede Kamayana	Muhammad Chairil
Title in PT Multidaya Teknologi Nusantara	CEO	CPO	VP of AIoT & Cultivation	CHRO	SVP of Legal	VP of GRC	SVP of Fish Value Chain	SVP of Shrimp Value Chain	VP of Financing	VP of Ops & Supply Chain Upstream	VP of Supply Chain Management Downstream	VP of India Expansion	VP of Public Affair
Industry Expertise	Aquaculture Technology	Aquaculture Technology	AIoT	Healthcare, Finance, Technology	M&A, Technology	Food & Agribusiness	FMCG	Aquaculture	Finance	Supply Chain Management	Aquaculture	Operation Management	Government Affairs
Organizational Leadership and Management													
Sustainability & ESG													
Food System													
Global Operation													
Risk Oversight & Risk Management													
Innovation & Change Management													
Regulation & Public Policy													
Board in Other Entity(ies)													
Gender Identity	Male	Male	Male	Female	Female	Male	Male	Male	Female	Female	Male	Male	Male
Ethnicity	Asian	Asian	Asian	Asian	Asian	Asian	Asian	Australian	Asian	Asian	Australian	Asian	Asian
Born Outside Indonesia													

Introduction of eFishery



Total Employee 2008	CEO Office 7	Fish Value Chain 661	Governance, Risk & Compliance 27
Indonesia Employee 1970	Finance & Legal 79	Shrimp Value Chain 286	Ops & Supply Chain Upstream 107
India Employee 38	Financing 174	Product 556	Public Affair 15
	Human Resource 58	India expansion 15	



Sustainability Governance

(E1, 2-9)

We implement sustainable governance based on the principles of transparency, accountability, and proactive stakeholder participation. Every strategic decision is made with careful consideration of its environmental, social, and economic impacts. Through rigorous monitoring and regular evaluations, we are committed to enhancing eco-friendly farming practices, minimizing waste, and optimizing resource use through innovative technologies in water and feed management. We also develop tailored solutions to mitigate the environmental impact of overall operations.

Structure	Composition & Responsibilities	Leaders
Impact Committee	<p>The Impact Committee, comprised of several Board members of eFishery Pte Ltd, plays a pivotal role in guiding eFishery's sustainability journey by providing strategic advice and oversight on environmental and social impact initiatives.</p> <p>The committee is tasked with advising on sustainability goals, ensuring alignment with eFishery's mission, and evaluating progress against established targets.</p> <p>Leveraging their expertise, the Impact Committee steers eFishery toward achieving long-term sustainability objectives while enhancing overall corporate responsibility. The Impact Committee convenes quarterly with the ESG Committee and the Sustainability Lead to review progress, discuss key developments, and ensure that decisions are effectively communicated and implemented. Reporting to the Board of Directors is held quarterly.</p>	<p>Amy Novogratz, AquaSpark</p> <p>Adrian Foo, Argor Capital Management</p> <p>Chris Teoh, responsAbility</p> <p>Gibran Huzaifah Amsi El-Farizy, CEO</p> <p>Kristin Veriga, SVP of Shrimp Value Chain</p>
ESG Committee	<p>Senior executives, including the CEO and VPs oversee the ESG strategy, ensure its alignment with corporate goals, and monitor ESG performance and reporting.</p> <p>The ESG Committee meets quarterly with the taskforce and Sustainability Lead to review progress, discuss key developments, and ensure effective communication and implementation of decisions. The ESG Committee serves as a governing body, cascading sustainability goals throughout the organization and overseeing their integration into team objectives. These quarterly meetings are designed to align initiatives with company directions, assess progress, and ensure that organizational structures support the achievement of sustainability goals effectively. Reporting to the Board of Directors is held quarterly.</p>	ESG leaders
Environment Leader	<p>Reduce the company's carbon footprint, manage waste, and promote sustainable resource use by implementing technologies, maximizing technology adoption for farmers and implementing biodiversity and climate action initiatives are embedded</p>	Chrisna Aditya Wardani, CPO
Social Leader	<p>Enhance the welfare of farmers and communities, promote fair labor practices, and ensure product safety by providing access to fair financing, supporting community development programs, and upholding high standards of labor practices.</p>	Junandar Panggabean, SVP of Fish Value Chain
Governance Leader	<p>Ensure transparency, accountability, and ethical behavior throughout the organization by establishing clear policies on anti-corruption, data protection, and business ethics.</p>	Mazlan Hashim, VP of GRC
Sustainability Lead, Sustainability & Development Unit	<p>Lead the development and implementation of the ESG strategy, coordinate ESG initiatives across departments, and report to the ESG Committee, Impact Committee and Executive Committee. Lead the sustainability and impact annual reporting and compliance to related standards</p>	Trini Pratiwi, Senior Manager Sustainability & Development

Sustainability in Aquaculture

(303-1, 304-1, 305-1, 301, 13.9)

The rapidly growing global population and the increasing demand for protein present challenges for the aquaculture industry to become an efficient and sustainable source of nutrition. eFishery aims to position aquaculture as a primary contributor to global food security while building an inclusive digital economic system to bridge gaps in the aquaculture value chain. Sustainable investment drives innovation through technology and science, positioning the company as a leader in sustainable aquaculture in Indonesia.

Unlike capture fisheries, which depend heavily on natural fish populations, aquaculture offers the potential for more intensive and productive farming practices. However, intensifying aquaculture presents several challenges, including disease outbreaks, poor feed and seed quality, water quality issues, and the impact of habitat destruction.

Aligned with our mission to address fundamental issues faced by farmers, we invest in developing innovative business models and farming environments. This approach aims to transform the aquaculture supply chain into an integrated supra-ecosystem that benefits all stakeholders. By systematically engaging with farmers, we create meaningful social impact through the integral relationship of its products and services. Our commitment to building an integrated aquaculture supra-ecosystem is implemented in a sustainable-based program consisting of: education and

improvement of farmer capabilities; development of environmentally friendly fish and shrimp health management technology; development of innovative farming equipment; provision of farmer-friendly financing access; and the establishment of an upstream-downstream supply chain.

eFishery has the potential to make a global impact by addressing key challenges in the aquaculture industry. By applying successful practices from Indonesia to other countries, eFishery can provide valuable solutions. We play a crucial role in optimizing the production of key Indonesian aquaculture commodities, such as vannamei shrimp and tilapia, using technology to meet domestic and global protein demands. eFishery also promotes financial inclusion by partnering with financial institutions to offer farmers access to funding. Their technologies support farmers throughout the aquaculture process, from production to market, boosting productivity and contributing significantly to the Indonesian economy.

Aquaculture in India and Indonesia differs, but both face similar challenges. India cultivates a broader range of fish and shrimp, often using polyculture, while both countries struggle with cultural practices, economic barriers, and limited awareness that impede the adoption of new technologies. These common issues present an opportunity for eFishery to effectively deploy its eFeeder technology in India, drawing on its experience to ensure success.



As company sustainability lead, I am proud to share that our journey at eFishery has been rooted in sustainability from the very beginning since 2013. Over the past year, we've developed a robust framework and initiatives that are now deeply embedded in our company culture, addressing the needs of farmers, customers and our investment partners. This inaugural report serves as a significant milestone, reflecting our commitment to strong accountability, good corporate governance, and meaningful impacts for farmers and communities. By setting high standards, we aim to transparently communicate our ongoing growth and dedication to our stakeholders.

Trini Pratiwi
Senior Manager Sustainability & Development



Sustainability Framework 2023-2060

(A1)

eFishery is dedicated to generating a sustainable positive impact through a strategic focus on three key areas: Tech-Enabled Sustainable Aquaculture, Biodiversity and Climate Action, and Thriving Communities. By implementing a strategy that emphasizes these areas, eFishery aims not only to achieve resilient business growth but also to actively contribute to a better future for both the environment and society.

eFishery Sustainability Framework

Utilizing technology to enhance sustainability, performance and profitability in aquaculture, aiming to drive a farmer-led industry transformation that reduces social inequality and eliminates hunger.

Main Strategy

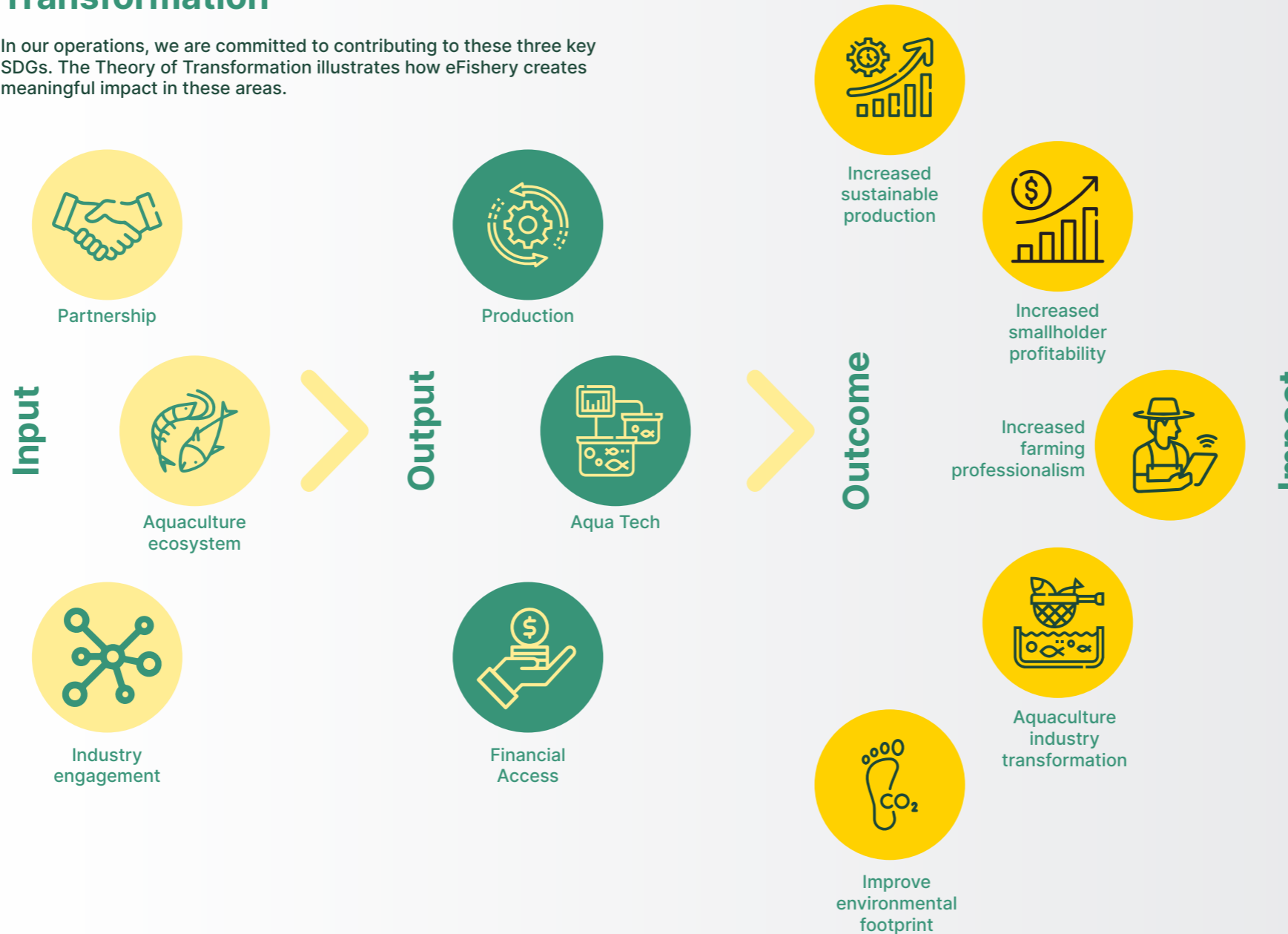
eFishery leads in technology-based aquaculture to increase farm productivity, profitability, and professionalism. The company uses aquaculture as a catalyst for eliminating hunger and improving farmers' livelihoods, producing high-value, nutritious products while maintaining balance within the farming ecosystem.

Focus Area

From its inception, eFishery has been dedicated to sustainability, focusing on using aquaculture to alleviate hunger and transform rural livelihoods. The company has advanced aquaculture efficiency and productivity through innovations like the eFeeder, AIoT solutions, and a comprehensive ecosystem that offers farmers enhanced financial access, farming inputs, and market channels. As the largest aquaculture feed aggregator in Indonesia, eFishery has positioned itself as a global leader in transforming the aquaculture industry with its tech-enabled solutions.

Theory of Transformation

In our operations, we are committed to contributing to these three key SDGs. The Theory of Transformation illustrates how eFishery creates meaningful impact in these areas.



Direct SDGs



2. Zero Hunger

- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
- 2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.
- 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

12. Responsible consumption and production

- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.
- 12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production;

14. Life below water

- 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.
- 14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.

Indirect SDGs



SUSTAINABLE DEVELOPMENT GOALS



Focus Area

	Tech-enabled Sustainable Aquaculture	Biodiversity & Climate Action	Thriving Communities
Focus Area Narrative objective	<p>We deliver high-quality products to our consumers, farmed responsibly with integrated traceability. Our commitment to best farming practices ensures that our products have a low carbon footprint potential and contribute positively to natural resources regeneration, farmers' livelihood and thriving communities.</p> <p>At eFishery, we increase productivity by maximizing output with fewer inputs i.e. feed saved through use of feeder, efficient FCR, yielding significant benefits for farmers, the environment, and the protection of wild fish stocks</p>	<p>We are committed to maintaining ecosystem balance and minimizing environmental impact across our supply chain including fish, shrimp, feeder and financial service products. Our goal is to align growth with farmers with the regenerating natural resources, addressing habitat conversion risks, and improving best practices in water use, waste management, and emissions reduction. By developing innovative feed formulations that reduce reliance on wild stocks, we significantly lessen our environmental impact and promote ocean health. Our commitment to advancing aquaculture ensures a more sustainable protein source, alleviating pressure on ocean resources, and fosters a more reliable supply chain.</p>	<p>As eFishery expands, we are committed to enhancing farmers' livelihoods and community well-being by advancing the aquaculture ecosystem. We leverage our existing operations to connect our products with farming communities, aiming to increase nutritional intake and increase fish consumption among vulnerable groups. Our efforts contribute to addressing national challenges related to hunger and extreme poverty.</p>
SubFocus Area Sub Thematic	<p>Our technology and data-driven production methods reduce feed waste, pollution, and disease. These innovations help mitigate negative impacts on the planet, support global food security, and relieve pressure on ocean resources.</p>	<p>We focus on environmentally sustainable management of natural resources and land use. Our efforts include reducing the greenhouse gas (GHG) footprint of our feed while enhancing its functionality, and improving supply chain efficiencies in transportation. By reducing fish meal usage and advancing innovations in fish and shrimp feed formulations, we contribute to biodiversity conservation and support healthier marine ecosystems. Our commitment extends to producing fish and shrimp products with a low carbon footprint.</p>	<p>We are dedicated to socioeconomic advancement and empowerment by enhancing farmers' access to financing and markets, which improves their profitability. Our efforts also focus on strengthening food security, developing sustainable food systems, and working towards the elimination of hunger.</p>

SubFocus Area
Narrative objective with examples of eFishery values to improve efficiency

eFishery aims to create a more sustainable aquaculture ecosystem through advanced technology. Our innovations have demonstrated the ability to increase production capacity by up to 30%, leading to a 45% increase in farmers' income. By optimizing feed distribution, reducing feed excess, and minimizing water contamination from inefficient feeding cycles, we have achieved a 30% reduction in nutrient runoff, which is a major contributor to water pollution.

Our services and products are designed to empower farmers to adapt to climate change by integrating technology to monitor farming growth and enhance efficiency. This approach enables agility and profitability in fluctuating and unpredictable conditions. Our technology suite includes eFeeder for improved feed efficiency, AIoT products and solutions for data-driven decision-making, and eFishery's full traceability and connectivity apps that track farm inputs from start to harvest. Combined with on-the-ground support, these initiatives provide daily assistance to farmers, enhancing technology adoption, financial literacy, and technical farming skills. By leveraging these technology-based solutions, farmers can better navigate climate change challenges, increasing their resilience and adaptability.

We provide farmers with access to financing options that enable them to invest in essential inputs and technologies. To date, we have connected thousands of farmers with various financial institutions, granting them access to financial services and affordable credit facilities. eFishery supports farmers by providing inputs at rates at best market prices, offtake products and offers better harvest prices compared to conventional buyers. This reduction in costs and increase in revenue enhances farmer profitability, enabling them to reinvest in and expand their operations. As a result, farmers experience improved financial outcomes and overall well-being.

As a company, we are committed to addressing and mitigating climate change by continuously enhancing our services and products. We are actively researching and implementing strategies to reduce our carbon footprint across our operations. This year, we have strengthened our measurement efforts by calculating our carbon footprint for both operations and consumed commodities. We are committed to further reducing our carbon footprint through projects focused on blue carbon potential, developing low-carbon commodities, and supporting initiatives aligned with our dedication to biodiversity and climate action.

We implement programs and facilities that offer farmers opportunities to acquire relevant skills and knowledge, promoting more efficient agricultural practices.


eFishery supports community farmers in the mission to eliminate hunger and ensure food security by improving access to nutritious fish and shrimp protein sources. By providing a reliable and sustainable source of high-quality protein, eFishery aims to meet the nutritional needs of growing populations, especially in regions where traditional agriculture may be less viable.

International Guidelines
Key international guidelines and regulations to follow and comply to

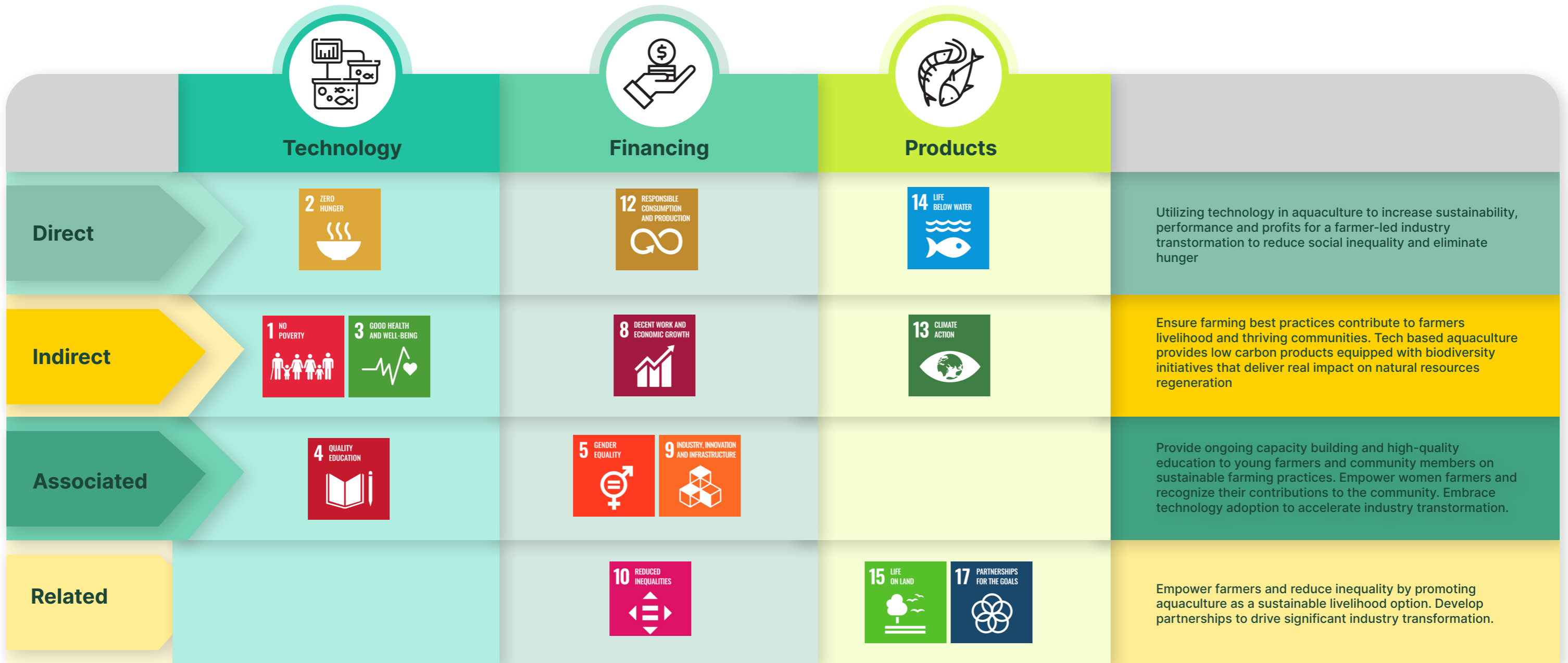
- EU Sustainable Financial Disclosure Regulation (SFDR)
- Green and Social Bond Principles 2023
- Green & Social Loan Principles 2023
- Aquaculture Stewardship Council
- Best Aquaculture Practices
- BRCCGS

- US Securities and Exchange Commission Enhancement and Standardization of Climate-Related Disclosures
- EU Sustainable Financial Disclosure Regulation (SFDR)

- EU Human Rights Due Diligence (HRDD)
- ILO Convention on Labour

<p>National Guidelines Key national development planning</p>	<ul style="list-style-type: none"> Economic stability Area development Enterprises development Transparent supply chain 	<ul style="list-style-type: none"> Indonesia NDC target Blue carbon credit Renewable energy 	<ul style="list-style-type: none"> Eradicate extreme poverty Eliminate hunger Community livelihood Sustainable green finance
<p>SDG Mapping UN SDGs mapping in focus area</p>			







Our ESG Scorecard and Goals

(F1, FB-AG-430a.1, 201-1, 203-2)

eFishery has developed an ESG Scorecard to measure the impact of its initiatives in Tech-enabled Sustainable Aquaculture, Biodiversity and Climate Action, and Thriving Communities. This tool evaluates how well eFishery's efforts reduce environmental impacts, enhance production efficiency, improve farmers' quality of life, maintain biodiversity, empower local communities, and deliver high-quality aquaculture products.

Tech-enabled Sustainable Aquaculture Environment					
Sub Focus Area	Goal	Measurement Metrics	2021	2022	2023
Supply Chain and Traceability	Achieve 100% traceability for all fish and shrimp sold and traded by 2025	Fish and shrimp sold and traded with improved traceability (kg)	35,485,147	114,955,514	242,245,164
Climate Adaptation and Resilience	1 million ponds connected to eFishery's technology and ecosystem by 2030	Total ponds connected with eFishery's technology and ecosystem (unit)	117,508	253,953	369,292
Sustainable Production	1 billion kg production of fish and shrimp contributing to 5% of the national GDP in the aquaculture sector by 2035	Total production volume of fish and shrimp in kg, % contribution to national aquaculture GDP and economic impact of the fish and shrimp production	35,485,147	114,955,514 ↑ 1.55%	242,245,164 ↑ 2.19%
Sustainable Production	1 million kg of certified product by 2030	Total certified products in kg	-	-	62,000

Biodiversity and Climate Action Environment					
Sub Focus Area	Goal	Measurement Metrics	2021	2022	2023
Climate Adaptation and Resilience	1 billion kg feed saved by 2040	Feed saved (kg) from use of eFishery technology and ecosystem	129,939,154	190,966,539	222,546,289
Emissions	Achieve net zero emissions by 2060 through ongoing and rigorous greenhouse gas (GHG) reduction initiatives across all aspects of our operations	GHG emissions scope 1 and 2 reduction (tCO2e/year)	N/A, calculation is not started	N/A, calculation is not started	188,348 tCO2e
Biodiversity	Safeguard and reforest 100,000 Ha of mangroves by 2040	Mangroves protected and reforested (Ha)	0	0	1 1,000 trees planted with ongoing monitoring



Thriving Communities | Social

Sub Focus Area	Goal	Measurement Metrics	2021	2022	2023
Economic Inclusion	100,000 farmers group connected by 2030	Indonesian farmers and farmer groups connected to eFishery technology and ecosystem	7,000+	23,000+	44,000+
		Indian farmers and farmer groups connected to eFishery technology and ecosystem	N/A	N/A	39
Living Income and Living Wage	100,000 farmers receive financing by 2040	Farmers receiving financing	4,094	9,025	15,191
Economic Inclusion	100 million USD funds delivered by 2030	Funds received by farmers (IDR)	214,237,407,720	442,486,742,866	653,831,708,088
		Funds received by farmers (USD)	15,018,390	28,129,223	42,412,539
Food Security	Support 1 million community members by enhancing food security and eliminating hunger through our sustainable aquaculture initiatives by 2050	Community members supported access to better food security and eliminated hunger risks	350	400	1201
Local Communities	Eliminate hunger and enhance food security in 100 regions by 2050	Food security and eliminating hunger area supported (n)	2	2	3





Our ESG Initiatives and Strategic Investment Pipelines

Focus Area	Tech-enabled Sustainable Aquaculture	Biodiversity & Climate Action	Thriving Communities
Key Initiatives	<ul style="list-style-type: none"> End to end supply chain ecosystem eFeeder, AIoT and farming traceability Certification and Improvement Programs for ASC, BAP, BRCGS, Seafood Watch and other related standards 	<p>Embark on a comprehensive, long-term journey to achieve net-zero emissions by 2060. Our company-wide commitment includes implementing robust emission reduction strategies and exploring effective offset alternatives to ensure a sustainable future.</p> <p>Key initiatives:</p> <ul style="list-style-type: none"> Mangrove positive aquaculture. <ul style="list-style-type: none"> * We aim to reforest and protect 100,000 hectares of mangrove forest from 2023 to 2040. This effort is calculated as blue carbon credits, focusing on carbon sequestration and avoiding total carbon emissions, with potential new revenue source Circular waste initiative <ul style="list-style-type: none"> * We are committed to optimizing waste management by repurposing shrimp byproducts for chitin/chitosan production, thereby enhancing full animal value creation and reducing waste sent to landfills, with potential new revenue source and lead to cost saving Sustainable feed initiative <ul style="list-style-type: none"> * eFishery is developing alternative shrimp feed formulations under our brand, designed to promote sustainability in aquaculture practices. 	<ul style="list-style-type: none"> Financial Access for Kabayan, Contract Farming, and Coop members: We provide tailored financial solutions to support Kabayan farmers, contract farming participants, and cooperative members, facilitating access to essential resources and technologies. Community Development Programs: Our initiatives include supporting certification and improvement programs to enhance farming practices and community development. Eliminating Hunger and Increasing Nutrition: We aim to eliminate hunger and increase fish and shrimp consumption by providing community members in eFishery farm ecosystems with access to nutrient-dense, high-protein food sources. This initiative helps improve overall health and nutrition within the communities we serve.

Double Materiality Assessment

(3-1, 3-2, 3-3)

This assessment identifies key sustainability topics throughout its operational processes. The materiality assessment is based on GRI 13: Agriculture, Aquaculture, and Fishing Sector 2022. The process for determining materiality topics for eFishery involves the following steps:

- Understanding the Organizational Context**
In this initial stage, we identify activities and business relationships. The assessment considers the organization's context across the value chain, including business relationships and stakeholder involvement.
- Identification of Key Issues and Scope of Reporting**
The identification process involves 12 stakeholder groups: Investors, Lenders, eFishery Employees, Partners/Farmers, Suppliers, End Consumers, Communities, Governments, NGOs, International Organizations, Academics, and the Media. Opinions are gathered from these groups through a questionnaire based on GRI 13.
- Verification and Validation of Materiality Issues**
eFishery ensures that the identified issues align with the impacts of its activities. The topics are verified, validated, reviewed, and approved by the Sustainability & Development division to ensure they are relevant and important to eFishery and its stakeholders.
- Priority of Materiality Issues**
The materiality assessment involved 55 questions using a 5-point Likert scale, based on GRI 13. This assessment, guided by the principle of double materiality, considers the financial impact of key risks. Data was collected from 120 respondents, both internal and external, to understand and prioritize issues affecting eFishery's business success and stakeholder interests.

After collecting and processing the data, the results are summarized as shown in the image below:



Material Topic

The image above presents the results of a 2024 survey conducted with eFishery stakeholders. These results offer in-depth insights into the issues most crucial to the success of eFishery's business and the interests of its stakeholders. The findings are categorized into the following areas:

Highly Critical Material Issue	Critical Material Issue	Moderate Material Issue
7 Water and effluents	1 Emissions	15 Non-discrimination and equal opportunity
9 Food security	2 Climate adaptation and resilience	18 Freedom of association and collective bargaining
12 Local Communities	3 Biodiversity	24 Public policy
13 Land and resource rights	4 Natural ecosystem conversion	25 Anti-competitive behavior
14 Rights of indigenous peoples	6 Pesticides use	
19 Occupational health and safety	8 Waste	
20 Employment practices	10 Food safety	
21 Living income and living wage	11 Animal health and welfare	
23 Supply chain and traceability	16 Forced or compulsory labor	
26 Anti-corruption	17 Child labor	
	18 Freedom of association and collective bargaining	
	22 Economic inclusion	

The 2024 survey highlights key issues for eFishery and its stakeholders. Quadrant I identifies Water and Effluent Management, Anti-Corruption, and Income and Living Wage as critical areas. These are essential for sustainable growth and stakeholder support, reflecting our commitment to social responsibility. Water and Effluent Management is especially crucial. Effective water management is vital for fish health and productivity, while proper effluent treatment prevents environmental pollution.

Anti-corruption is a major focus for eFishery. We have a strict policy against corrupt practices, bribery, and abuse of power, supported by regular employee training on ethical behavior. This policy aims to build trust with stakeholders by ensuring integrity and transparency.

Income and Living Wage are also critical. eFishery provides fair, competitive wages and additional benefits like health insurance and skill development. This commitment enhances employee well-being, motivation, and productivity.

Quadrant II highlights issues like Emissions, Waste, and Animal Health and Welfare. While these are less critical to immediate business success, they are crucial for maintaining stakeholder trust and a positive reputation. Quadrant III covers issues like Biodiversity, Ecosystem Conversion, and Economic Inclusion. Though currently less urgent, addressing them can prevent future risks and ensure long-term sustainability. Quadrant IV includes concerns such as Child Labor and Pesticide Use. While these are not top priorities for stakeholders, focusing on them can improve business efficiency and uphold ethical standards.





Economic Performance



Economic Performance

(B1)

Who We Are (C1)

eFishery began its journey from a modest shed with big dreams and has grown into a billion-dollar company with the largest aquaculture ecosystem and farmer community in Indonesia. We are pioneering technology solutions for fish and shrimp farming, aiming to elevate farmers and transform traditional practices with modern, practical technology.

Our core ideology, **“Tumbuh Bersama” (Grow Together)**, drives us to innovate and enhance farming practices, working hand-in-hand with farmers to modernize and optimize their operations. Our ultimate goal is to **“feed the fish, feed the world.”** This is in line with our mission to make aquaculture the primary global source of animal protein by addressing fundamental problems with affordable technology and fostering an inclusive digital economy.

With projections showing a 52% increase in demand for animal protein by 2050 and 660 million people facing hunger by 2030, aquaculture stands out as a rapidly growing sector with efficient feed conversion. eFishery believes that **“The Future is Aquaculture”**, and we are committed to building a systematic value chain that strengthens global food security through integrated and sustainable practices.

eFishery’s impact is evident in our efforts to enhance food security in Indonesia through various programs and services. We focus on improving efficiency and effectiveness in fish and shrimp cultivation, providing inclusive financial access, accelerating harvest cycles, increasing feed efficiency, and increasing production capacity and farmer income. By leveraging advances in information technology, we offer integrated solutions for purchasing affordable feed, ensuring fair harvest sales, and delivering comprehensive education in aquaculture.

Theory of Transformation

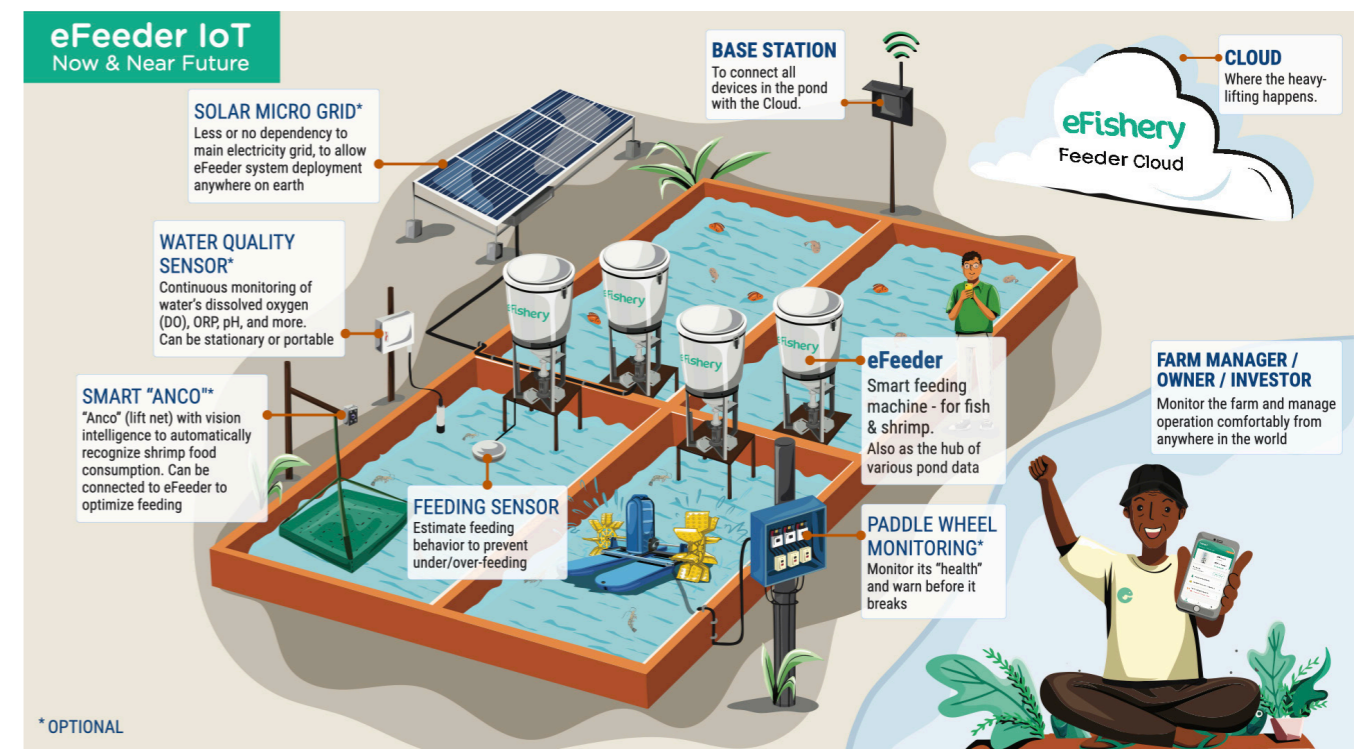
Indonesia stands as the world’s second-largest aquaculture producer, following China, within a sector valued at \$9.7 billion. As the fastest-growing food production sector globally, aquaculture in Indonesia involves 3.5 million fish and shrimp farmers and 1.5 million SMEs, covering 30.3 to 40.1 million fish and shrimp farms across the country. Over the past six years, the top eight fish and shrimp species have experienced an average annual growth rate of 26.56%, with catfish leading at a remarkable 40.16%. Currently, the sector is expanding at an annual rate of 13.7% and is projected to grow by 18.7% in 2020]. This growth is fueled by rising global fish consumption and the fact that Indonesia is utilizing only 7.38% of its total potential area for aquaculture.



One of the significant challenges faced by millions of fish and shrimp farms is the high cost of feeding, which can account for 70-90% of total production costs. Traditional manual feeding practices are often inefficient, as laborers may lack the necessary skills, leading to overfeeding or underfeeding in various parts of the pond. Additionally, monitoring these laborers across multiple ponds can be challenging, and in some cases, they might even steal feed and resell it, further harming profitability.

To tackle these issues, eFishery offers the eFisheryFeeder—an innovative IoT technology designed to optimize feeding practices. The eFisheryFeeder is an automatic feeding machine that connects to mobile apps and the cloud, allowing farmers to input data such as feed type, brand, stock density, and maintain a digital logbook for recording fish mortality and harvest information. This data is transmitted to the cloud, where it is analyzed and visualized through a web dashboard.

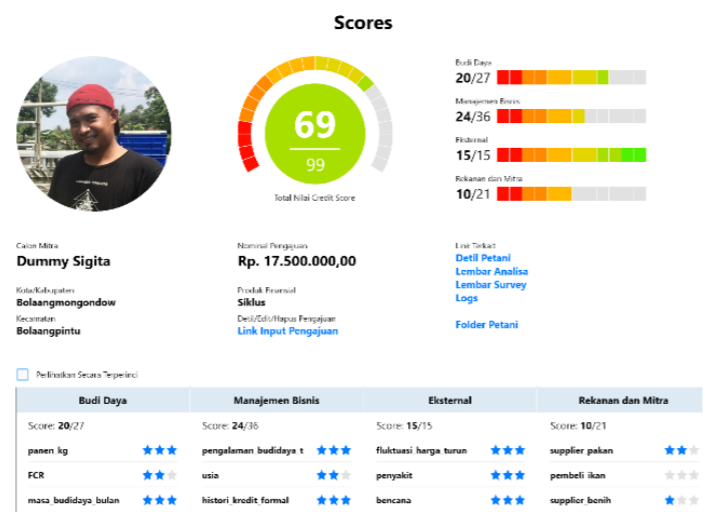
In addition to the data collected through farmers’ apps and devices, our on-ground team gathers supplementary information such as water quality, farmgate prices, and disease occurrences. We also integrate external and third-party data, including weather conditions and market prices, to provide a comprehensive view. This aggregated data, collected daily at a granular pond level, helps farmers make informed decisions, enhances feed efficiency, and reduces costs.



*OPTIONAL

Economic Performance

Based on the data and insights we have gathered, we developed Kabayan, a financial services marketplace tailored specifically for the aquaculture industry. The primary challenge we address is the lack of access to formal financing for farmers, who often face difficulties due to perceived risk associated with fish and shrimp farming. To mitigate this, we created a digital KYC system and proprietary credit scoring model using farm and farmer data. This system connects farmers with financial institutions such as banks, P2P lending startups, and insurance firms. Through Kabayan, farmers gain access to competitively priced financing products, while banks receive valuable KYC and due diligence data to better manage risks and serve new market segments. Additionally, we reduce overhead costs by providing a digital platform that streamlines information. Given that a significant portion of working capital is allocated to feed, we facilitate the disbursement of loans directly as feed based on our daily feed data. This approach minimizes the risk of cash misuse and ensures that funds are used efficiently.



Our data platform also allows us to predict the brands and types of feed that farmers use, including quantities and timing. By aggregating this data from specific regions, we can consolidate orders into bulk quantities sufficient to purchase directly from feed manufacturers. This model, known as **eFisheryFeed**, enables farmers to bypass traditional feed stores and distributors, allowing them to buy feed directly at wholesale prices. We manage this process through an on-demand and aggregated approach, purchasing feed in bulk from manufacturers and supplying it to farmers more cost-effectively.



We apply a similar model to fish sales as we do with feed. Currently, farmers sell their fish to multiple middlemen, who then pass the fish through 4-8 intermediaries before reaching the end-buyer. This process results in lower prices for farmers and higher costs for buyers. The need to sell freshwater fish live, coupled with the large quantities harvested every few months, means farmers face challenges in matching their supply with the smaller, more frequent purchases made by households and restaurants.

To address this, we utilize harvest prediction data from individual ponds to pre-sell fish through a digital platform. This platform allows restaurants and small food vendors to purchase fish in smaller quantities until a predefined quota is met. By cutting out the middlemen, we can offer farmers 20-30% higher prices than they would receive through traditional channels and provide restaurants with fish at a 10% lower price than market rates. Additionally, we ensure traceability and transparency for buyers, providing detailed information about the source and farming practices of the fish they purchase.

Economic Performance



We create value through an integrated ecosystem that supports farmers from the initial input stage to harvest. eFishery is a pioneer in applying Artificial Intelligence (AI) within the aquaculture operational chain, increasing effectiveness and efficiency while mitigating the risk of decreasing water quality. This innovation leads to reduced operational costs and lessens the environmental impact of aquaculture.

We offer comprehensive support for the development of cultivator businesses by providing safe and accessible financial solutions. Farmers benefit from convenient feed purchases with deferred payment options until harvest time. Our commitment to advancing technology in aquaculture extends to modernizing the product distribution chain. eFishery delivers three main values:



Data-driven productivity gains

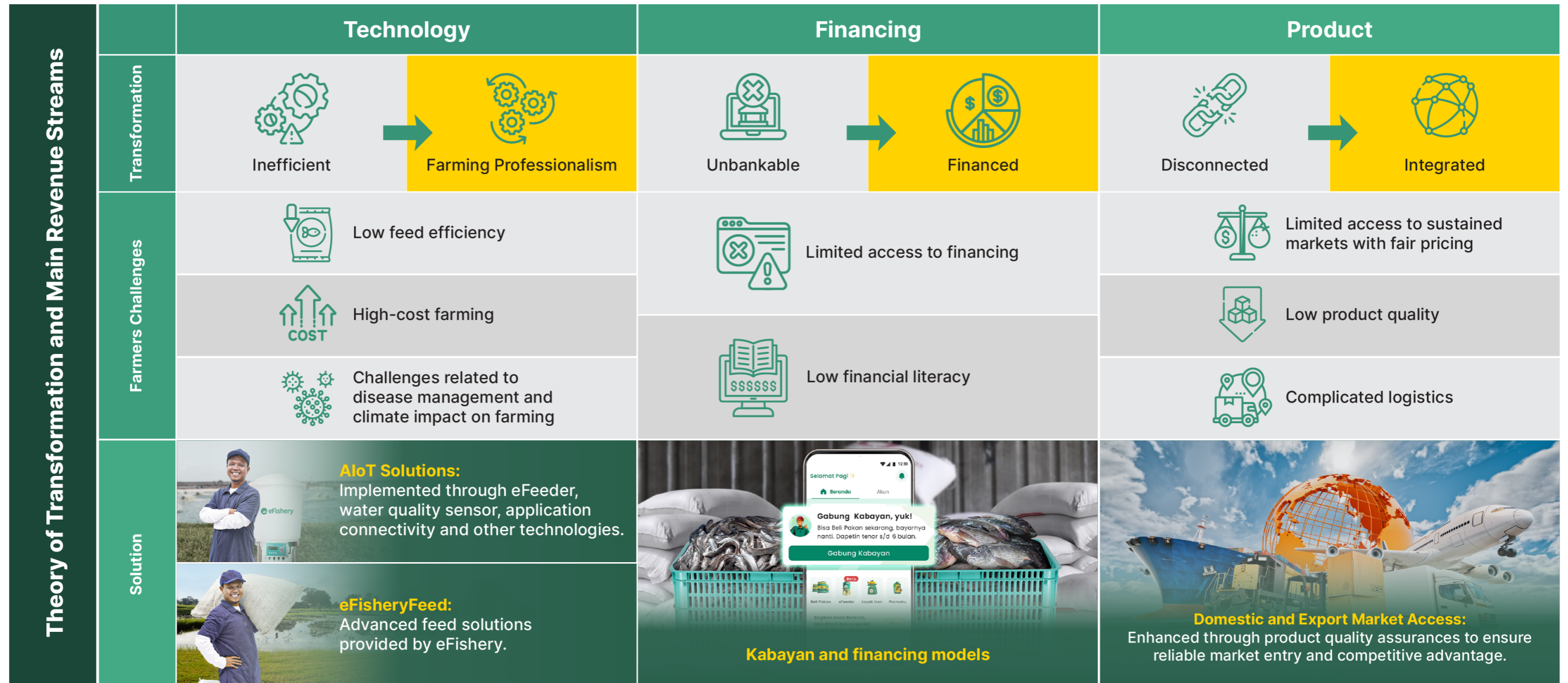


Scalable cost reductions



Reduced financial burdens





Economic Inclusion (201-1, 203-1, 203-2)

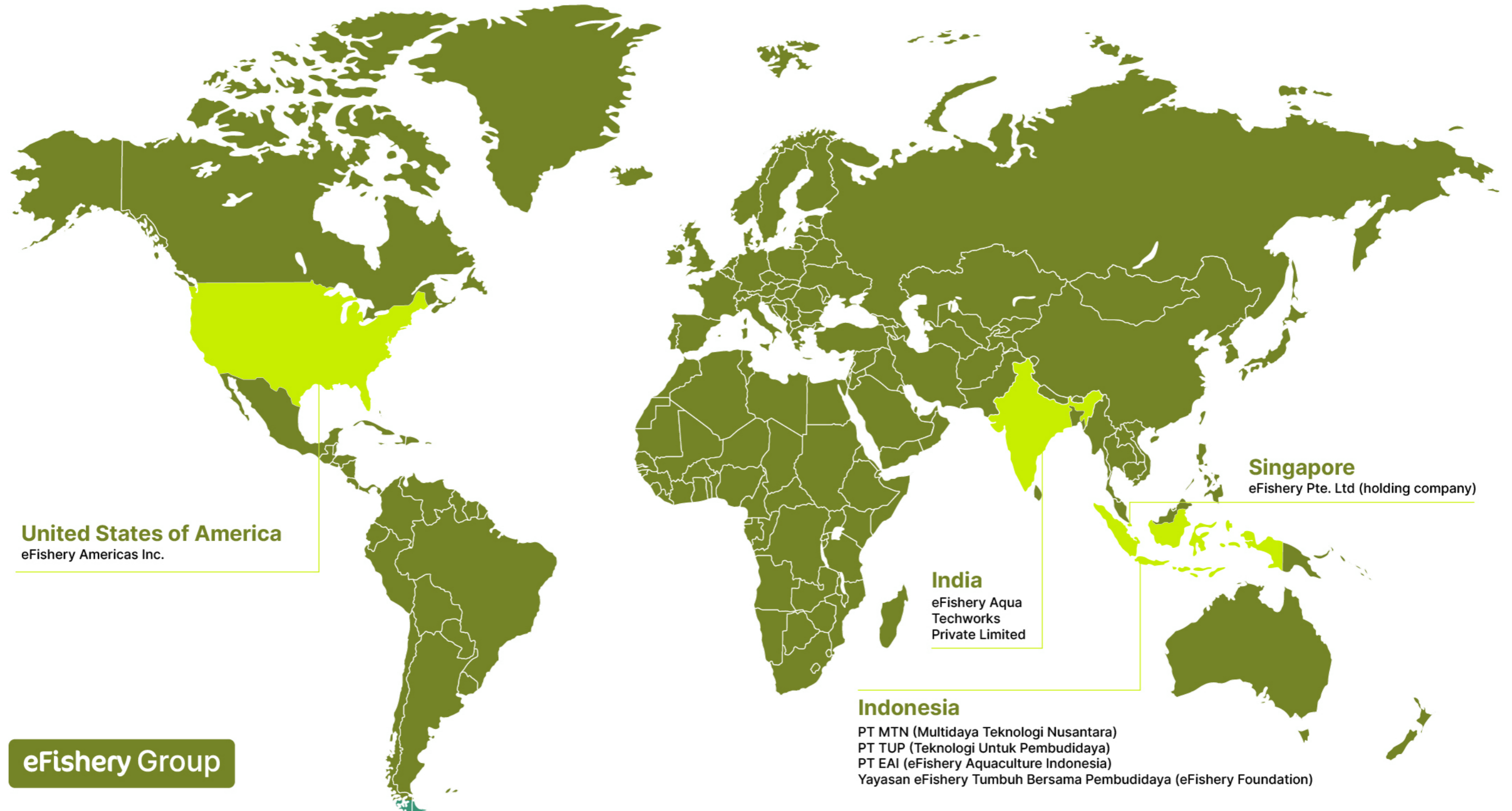
Building on the transformation theory discussed earlier, we are committed to advancing economic inclusion for our farmers through the following key aspects

- **Equal Opportunities:** Ensuring that every farmer has access to eFishery's products, services, and business opportunities.
- **Support for Local Economies:** Contributing to local economic development by implementing practices such as sourcing fish and shrimp from local farmers.
- **Access to Resources:** Facilitating access to essential resources like education, training, and technology, empowering farmers and their communities to fully participate in the economy.
- **Inclusive Business Practices:** Implementing business models and practices that address and reduce economic disparities, including creating inclusive supply chains that support diverse suppliers and community-based enterprises.



Our Operation

(C2, 2-1, 2-2)



PT MTN (Multidaya Teknologi Nusantara)

192
Regencies
Points

23 Upstream
Hub

Java: 7 | Sumatra: 8
Bali & Nusa Tenggara: 3
Kalimantan: 2 | Sulawesi: 3

1 eFeeder
Warehouse

Bandung

2 Processing
Plant Partner

East Java

7 Shrimp Health and
Water Laboratory

Aceh, Lampung, Cilacap
Purworejo, Bali, Tuban,
Banyuwangi

6 Downstream
Hub

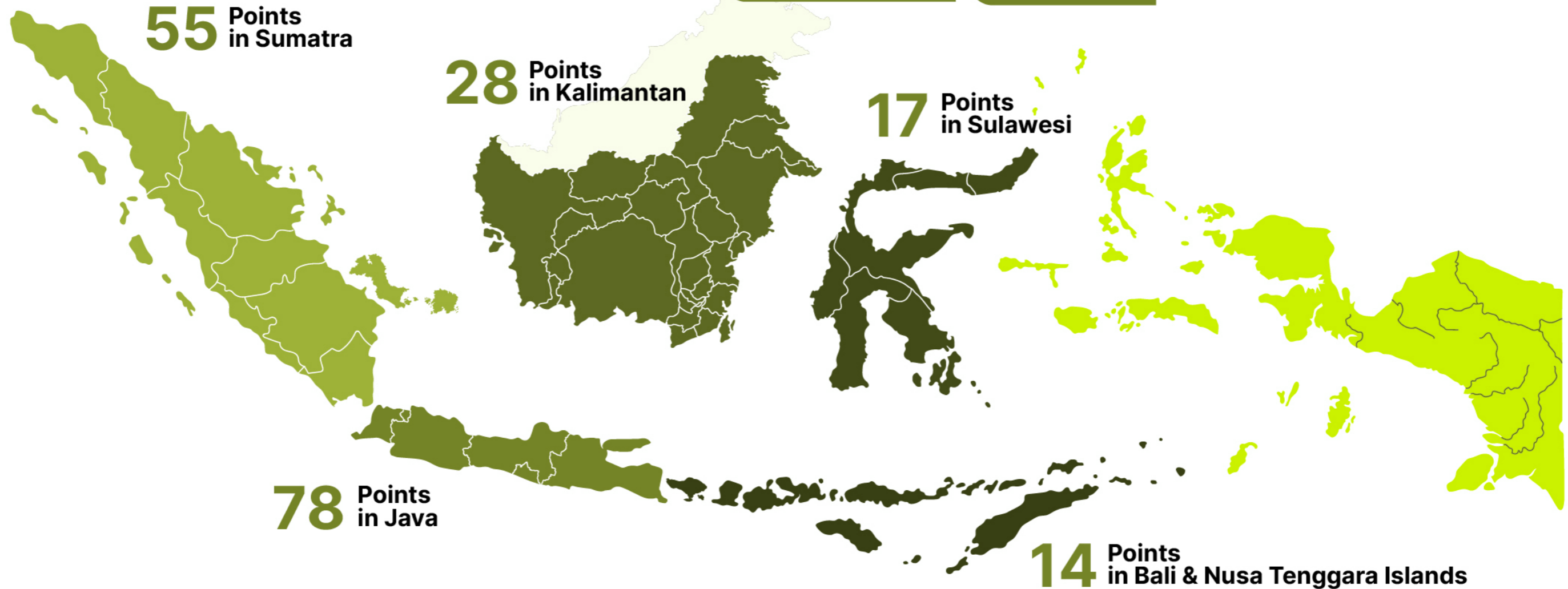
Jakarta, Bandung, Karawang,
Depok, Bekasi

8 Key Fish
Area

West Java, Central Java,
East Java, West Nusa,
Tenggara, Lampung,
West Sumatra,
South Kalimantan,
South Sulawesi,

8 Key Shrimp
Area

East Java, West Java,
Central Java, Bali,
West Nusa Tenggara,
Aceh, Lampung,
South Sulawesi



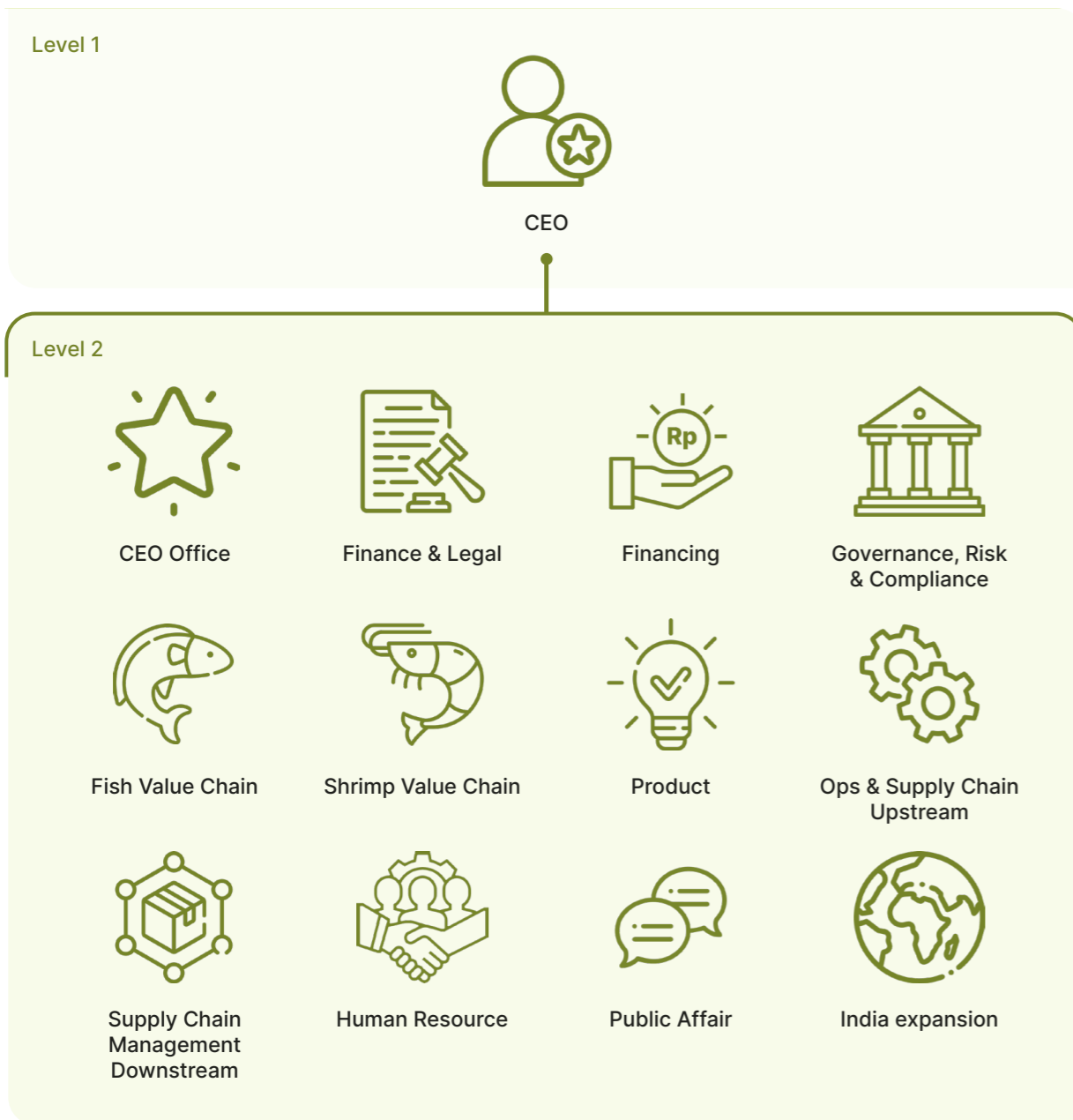
Legal Status of Ownership: Limited Liability Company
Business Activities and Products: Business activities of eFishery and its subsidiaries are aquaculture, trading business (feed and fresh) and technology
Head Office Address: Jl. Malabar No.37 RT 01 RW 01, Samoja, Kec. Batununggal, Kota Bandung, Jawa Barat 40262
Country of Operation: Indonesia
Market served: Indonesia

Date of Establishment: 15 April 2024
Telephone: 022 - 30500324
Website: <https://efishery.com/id/>
Email: contact@efishery.com
Social media: @efishery @efishery_ai @eFisheryID @eFishery @eFishery
Subsidiary(ies): PT Teknologi Untuk Pembudidaya
 PT efishery Aquaculture Indonesia
 eFishery Aqua Techworks Private Limited

Economic Performance

eFishery operates with a well-defined structure to foster an active and supportive relationship with farmers. Our core departments—Fish Business, Shrimp Business, Product, and Financing—each focused on critical aspects of our operations. This specialized approach enables us to address specific challenges and opportunities within both fish and shrimp farming sectors, providing targeted support and expertise to meet the diverse needs of aquaculture producers.

To support these core departments, eFishery has several functional units, including Legal and Finance, Supply Chain, Governance, Risk and Compliance, Public Affairs, and the CEO's Office. These units work collaboratively to provide comprehensive support, addressing all regulatory, logistical, and compliance-related needs. This integrated approach streamlines our operations and ensures transparency, which is crucial for building trust and maintaining strong relationships with farmers.



Economic Performance

Business Scale (C3, 201-1)

eFishery has experienced impressive revenue growth over recent years, showcasing its expanding scale and influence in the aquaculture sector. In 2021, eFishery's total revenue was approximately 1.6 trillion IDR, which surged to nearly 5.8 trillion IDR in 2022, and further escalated to over 10.8 trillion IDR in 2023. This significant increase highlights the company's robust market presence and successful scaling across its business divisions: eFarm, eFresh, and eMall/eFeed. Among these, eFresh and eMall/eFeed have been the primary drivers of revenue.

Despite the considerable operating costs, including costs of goods sold and operating expenses, eFishery remains committed to innovation and development. The company's investment in research and development has risen sharply, from 1.3 billion IDR in 2021 to over 135.7 trillion IDR in 2023, with a 100-fold increase reflecting its dedication to advancing aquaculture technology. With a strategic focus on maintaining operational efficiency while significantly investing in growth and technological improvements, eFishery continues to strengthen its position as a leader in the industry.

Sustainable Finance (E2-E5)

Our Sustainability Financial Framework has been independently assessed by Sustainalytics, which affirmed that the framework is both credible and impactful, aligning with established sustainable guidelines, see our Sustainable Finance Framework highlight and Sustainalytics Second Party Opinion on our website.

The Framework outlines eligibility criteria in five key areas:

1. Alternative Energy, Energy Efficiency and Renewable Energy
2. Environmentally Sustainable Management of Living Natural Resources and Land Use
3. Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes
4. Food Security and Sustainable Food Systems
5. Socioeconomic Advancement and Empowerment

Sustainable Finance Principles Adopted by eFishery:

- **Environmental, Social, and Governance (ESG) Integration:** eFishery integrates ESG principles into its fundraising efforts, ensuring that all investments generate financial returns while positively impacting society and the environment. ESG remains at the core of our financial strategy, deeply linked to our sustainability goals.
- **Technological Innovation:** We leverage technology to enhance resource efficiency, such as using automated feeding systems to reduce waste and minimize environmental impact.
- **Transparency and Accountability:** eFishery upholds transparency in all transactions and provides clear reporting on the impact of its financial activities to stakeholders, ensuring accountability at every step.

The Green and Social Loan supports eFishery's mission to empower smallholder fish and shrimp farmers by providing the technology and resources necessary to enhance productivity and sustainability. This loan funds working capital for purchasing fish and shrimp from farmers, ensures a stable feed supply, and strengthens the overall supply chain.

- **Green Categories** include Alternative Energy/Energy Efficiency & Renewable Energy, Environmentally Sustainable Management of Living Natural Resources and Land Use, and Eco-efficient and/or Circular Economy Adapted Products, Production Technologies, and Processes. For example, our eFeeder project has significantly improved Feed Conversion Ratios (FCR), reducing it from 1.3-1.8 to 1.09. This advancement minimizes feed wastage and water pollution, leading to healthier fish with more uniform sizes and optimized growth. Additionally, in alignment with our renewable energy goals, we have piloted solar-powered eFeeders, providing an eco-friendly solution that supports our energy efficiency and sustainability targets. Our commitment to local markets further reduces carbon footprints by minimizing long-distance transportation and cold storage requirements.

- **Social Categories** focus on Food Security and Sustainable Food Systems, and Socioeconomic Advancement and Empowerment. We strive to enhance food security and promote sustainable food systems through increased productivity and efficiency in aquaculture. Our initiatives include improving affordability for end customers and providing better prices for farmers. The eFeeder and affordable feed options have significantly increased farmer profitability. We've established eFishery Points across Indonesia as sales and knowledge-sharing hubs, and provide access to Aquaculture Scientists for disease prevention and problem-solving. Additionally, our BNPL Program - Kabayan connects farmers with financial institutions, improving cash flow and capital access for business expansion.



"The fact that the Company prioritizes farmers' well-being and prosperity, even when there's potential to generate more profits, truly makes supporting its growth worthwhile. I know that my efforts not only contribute to the Company's expansion but also to improving the livelihoods of farmers. This resonates deeply with me, as I'm passionate about MSME empowerment. Knowing that farmers—who represent micro and small businesses—are valued, supported, and uplifted brings a sense of satisfaction on another level."

"The Investor Relations and Corporate Finance Department plays a crucial role in eFishery's success by ensuring its financial health and fostering strong investor relationships. Our focus on securing funding and managing resources effectively allows us to invest in cutting-edge technologies and broaden our impact, driving the company's growth and its mission to revolutionize the aquaculture industry",

Angga Hadrian
VP Corporate Finance & Investor Relations

Local Communities (413-1-2)

At eFishery, local communities are at the heart of our operations, particularly in rural and coastal regions where we engage in farming activities. We view these communities as essential partners and demonstrate our commitment through a robust grievance mechanism and stakeholder engagement processes that facilitate open communication and address any concerns they may have.

Our approach integrates environmental, social, and governance (ESG) aspects related to aquaculture. We are committed to minimizing the environmental impact of fish farming while actively addressing social and governance issues to benefit the broader community. By collaborating closely with farmers, we embrace a community development model that respects and strengthens existing social structures. Our goal is to support farmers in adopting improved practices, leading to enhanced yields and more sustainable outcomes.

In terms of economic and social impact, we are dedicated to improving the well-being of farmers and their communities. Our development programs focus on job creation, improving access to education and healthcare, and addressing other social welfare needs. By leveraging these initiatives, we aim to make a positive contribution to the economic and social fabric of the communities where we operate.

Principles	eFishery is committed to fostering strong, respectful relationships with local communities. We continuously strive to enhance our positive impact through thoughtful and responsible practices that prioritize the well-being of these communities.
Initiatives & Strategies	<ul style="list-style-type: none"> • Farming community development model • Prioritizing local workforce • Reinvestment and community development programs in health, education and other social welfare areas

Metrics & Impact Reporting	<ul style="list-style-type: none"> • Number of Farmers Supported: Total number of farmers benefiting from eFishery's programs and services. • Farmers Receiving Financing: Number of farmers who have gained access to financing through our initiatives, such as the BNPL Program - Kabayan. • Wellbeing Reinvestment Value: Total value reinvested into local communities through programs focused on health, education, and social welfare. • Job Creation: Number of jobs created directly or indirectly as a result of eFishery's operations and community development programs
Policies	<ul style="list-style-type: none"> • Code of Conduct • Supplier Code of Conduct • Stakeholder Engagement • External Grievance Mechanism

Food security (13.9)

Our operations significantly contribute to the enhancement of food systems and availability. By producing fish and shrimp, we increase the overall supply of safe, nutritious food, directly supporting the dietary needs of communities and promoting active, healthy lives.

We are committed to prioritizing local markets for our products, ensuring that our products enhance food availability within the areas where they are produced. When logistics require distribution to other regions, we carefully align supply with demand, managing it efficiently to minimize disruptions. This approach is grounded in our core principle of leveraging aquaculture technology to combat hunger and strengthen food security for communities.

Principles	Our focus on sustainable practices and local engagement demonstrates our dedication to improving food access and supporting community well-being. Through responsible and innovative aquaculture solutions, we aim to contribute to both local and global food security.
Initiatives & Strategies	<ul style="list-style-type: none"> • Local supplies and production • Food security community development support • Eliminating hunger community development support • Nutritious food support e.g. promoting the consumption of nutritious food, such as fish and shrimp, to increase protein intake and address public health challenges like stunting
Metrics & Impact Reporting	<ul style="list-style-type: none"> • Fish and Shrimp Production: Total quantity of fish and shrimp produced, contributing to food security and meeting local and global demand for nutritious food • Community Members Supported: The number of individuals and households benefiting from eFishery's initiatives, including access to nutritious food, employment, and social welfare programs • Areas Supported with Food Security and Hunger Challenges: The number of regions or communities where eFishery's programs have actively addressed issues related to food security and hunger through sustainable aquaculture practices
Policies	<ul style="list-style-type: none"> • Sustainable production guideline and SOPs • Food security and hunger elimination in community development

Living Income and Living Wage (13.21)

At eFishery, we are committed to ensuring fair and equitable compensation practices for both our employees and the farming communities we work with, in line with living wage and living income principles. Our employment practices comply with Indonesia's labor laws, which establish minimum wage standards and other employment requirements.

We also support fair market prices for our farmers, ensuring they receive compensation that aligns with living income principles, allowing them to maintain a decent standard of living. This approach reflects our commitment to economic equity, both within our organization and in our relationships with external stakeholders.

Over the past two years, eFishery has conducted impact studies to evaluate the effects of our products and services on local communities. These studies enable us to better understand and enhance the economic and social benefits we deliver, reinforcing our commitment to fair compensation and sustainable development.

Principles	We are dedicated to driving positive impacts on living income and living wage for both our employees and farmer partners. Our goal is to enhance their well-being by ensuring that our compensation practices consistently meet or exceed fair living standards, fostering economic stability and prosperity
Initiatives & Strategies	<ul style="list-style-type: none"> Financial products including Kabayan and other farmers community development model Reinvestment community development Impact study
Metrics & Impact Reporting	<ul style="list-style-type: none"> Number of farmers members Number of eFishery, promoted eFishery Farmers revenue and impact of products and services
Policies	<ul style="list-style-type: none"> Financing products guideline and SOPs Code of Conduct, fair labor practices, wages and compensation





Environmental Performance



Environmental Performance
Tech-Enabled Sustainable Aquaculture

(B2, FB-AG-430a.3, IFC1, 303 1-5, 304, 305, 306 1-5)

Our business strategy focuses on utilizing technological advancements to transform Indonesia's aquaculture industry, making it more efficient and sustainable. This approach aligns with our broader mission of promoting sustainable environmental management, economic growth, and social welfare within the sector.

Artificial Intelligence (AI) is integral to our vision of building a sustainable aquaculture ecosystem. We employ AI-driven systems to enhance feeding efficiency and reduce aquaculture waste, enabling farmers to increase growth rates and improve the health of their aquaculture products while minimizing environmental impact. By combining AI with

geospatial technology, we empower farmers with precise mapping and location monitoring tools that optimize resource use and mitigate ecological risks.

Our advanced AI and IoT sensor technologies allow farmers to gather real-time data on critical parameters such as water quality and temperature, providing a comprehensive overview of pond health and early detection of potential disease outbreaks. This data-driven approach is key to improving aquaculture health and ensuring high-quality products for consumers. AI algorithms also provide more accurate harvest time predictions, helping farmers optimize resource planning and streamline the aquaculture supply chain.

eFishery's sustainability strategy, driven by technology, demonstrates how innovation can improve operational efficiency.

Objective

Aquaculture has now surpassed global capture fisheries in production, solidifying its role as the future of the seafood supply. In Asia, much of this growth comes from smallholder farmers who often lack access to advanced technology and efficient farming practices. By focusing on technology-enabled sustainable aquaculture, we aim to improve both the quality and quantity of seafood, while upholding industry standards and empowering smallholder farmers with the tools and knowledge they need to thrive.

Risk management

eFishery supports farmers and operations by driving technology adoption and promoting best practices. We are advancing initiatives that harness technology to optimize fish and shrimp production, ensuring more efficient and sustainable aquaculture production.

Commitment & Target

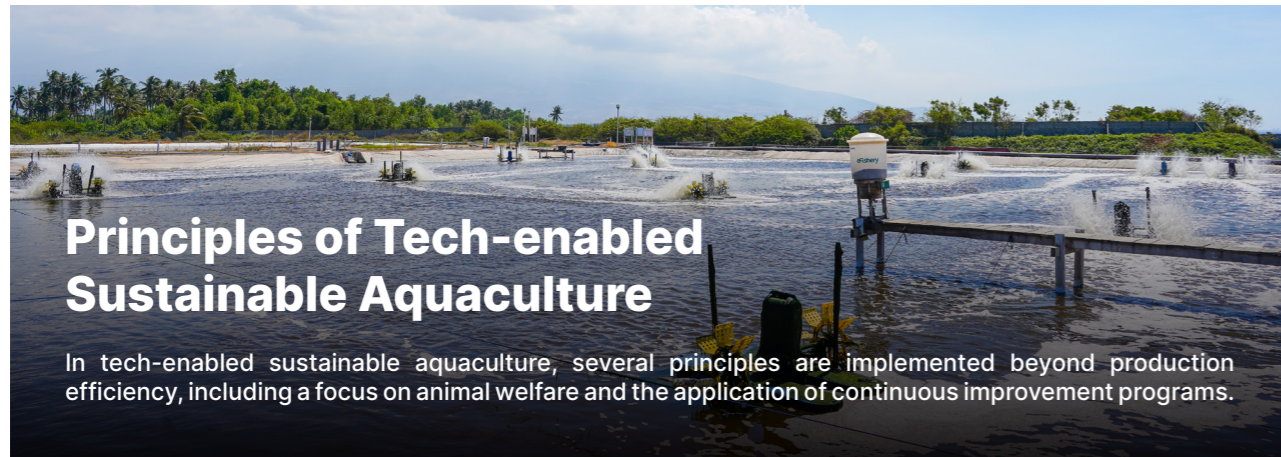
- Increase sustainable fish and shrimp production with integrated traceability
- Develop and implement eFeeder and AIoT solutions to enhance best practices and resource efficiency
- Improve production efficiency and best practices by optimizing FCR, saving feed, and increasing yield and survival rates
- Advance compliance with industry aquaculture and food safety standards

Policy

- Our commitment is supported by the following policies and internal plans:
- Integration of sustainable production practices into our Code of Conduct and Supplier Code of Conduct
 - Adherence to Good Corporate Governance principles
 - Anti-Fraud and Anti-Corruption policies
 - Data Privacy & Data Security policies
 - eFishery's best practices guidelines and SOPs for fish and shrimp farming
 - Impact Strategy & Impact Action Plan
 - Environmental and Social Management System (ESMS)
 - Company commitment on emission reduction
 - Company commitment to biodiversity protection

Evaluation

The Executive Committee, in collaboration with the Impact Committee and ESG Committee, leads tech-enabled sustainable aquaculture initiatives while driving both existing and new programs forward. In its business expansion, acquisitions and partnerships, eFishery evaluates potential partners and conducts thorough due diligence with a focus on upholding same standards in ESG compliance, technological advancement in aquaculture, and alignment with sustainable practices.



Principles of Tech-enabled Sustainable Aquaculture

In tech-enabled sustainable aquaculture, several principles are implemented beyond production efficiency, including a focus on animal welfare and the application of continuous improvement programs.

Animal Welfare

We prioritize animal welfare by collaborating with farmers and sharing comprehensive Standard Operating Procedures (SOPs) that cover health management plans, biosecurity measures, and sustainable harvesting methods. These SOPs ensure fish and shrimp are raised and handled with care, protecting both the animals and the environment, while producing high-quality products. Our focus is on the proper handling of livestock from pre-harvest to harvest stages. We partner with organizations like BAP, ASC, and Seafood Watch to certify our collaborating farmers, ensuring they meet international standards for sustainable farming practices.



- 1. Health and Management Plans**
Ensuring the wellbeing of fish and shrimp through comprehensive health management strategies.
- 2. Biosecurity Measures**
Implementing protocols to prevent disease and maintain a safe environment.
- 3. Good Harvest Methods**
Focusing on humane and sustainable practices from pre-harvest to harvest time.

We implement a thorough approach to ensuring product quality. As part of this program, we conduct regular checks on water quality, provide feed input estimates based on easy cycle needs, and assess quality before it is harvested and sold through downstream channels.

Fish Improvement Program

eFishery is committed to advancing responsible and sustainable farming practices. In collaboration with BAP, we bring smallholder farmers together to adopt farming practices that align with sustainability and responsible farming standards. Improvement programs could be coupled with the Coop Farmers Model, incorporating all benefits eFishery offers:



- 1. Seed Input**
Conducted in collaboration with the Quality Control team and seed supplier partners to ensure high-quality seed inputs for farmers.
- 2. Feed Input**
Managed through eFishery's Internal Fulfillment to guarantee that farmers receive high-quality feed that meets farming targets.
- 3. Water and Fish Quality Monitoring**
Regular checks are performed to assess water quality and the quality of fish throughout farming process.
- 4. Pre-Harvest Quality Check**
Before harvesting, an additional quality check is carried out to ensure the fish meet the desired specifications.

By the time the fish reach the downstream channels, they have already been verified to meet the specifications required by both the team and the downstream market, ensuring product quality and consistency.



Shrimp Improvement Program

eFishery is collaborating with ASC and Seafood Watch to promote responsible aquaculture practices, marking a significant step towards advancing sustainability in Indonesia's shrimp farming sector and supporting the development of smallholder shrimp farmers. Through this partnership, eFishery is committed to fostering the growth of smallholder shrimp farmers by providing assistance in obtaining ASC and Seafood Watch standards compliance. This initiative not only promotes sustainable farming practices but also helps farmers gain access to international markets.

Certified products provide smallholder shrimp farmers with a crucial edge by ensuring higher quality and sustainability standards, which translates to better market access and fairer prices. This certification not only enhances their credibility but also opens doors to premium

markets, ultimately leading to increased revenue and long-term profitability. This is where eFishery can enhance its revenue by directly supporting farmers and expanding its reach from the domestic market to international markets. Our office and warehouse in America are fully equipped to support this initiative, and we began shipping containers to the export market in 2023.

eFishery implements a Quality Management System (QMS) for product processing that adheres to Standard Operating Procedures (SOPs) aligned with HACCP (Hazard Analysis Critical Control Point). Each step in the product processing chain is rigorously monitored to ensure that products are handled and processed safely, ensuring they meet the highest standards for food safety and quality before reaching export consumers.



Our Offer for Better Technology, Financing and Farming Ecosystem

(C4, F17, F27, 201-2, 301-1, 304-1)

We have developed an integrated ecosystem that harnesses the power of AI and IoT to create a more productive and environmentally friendly aquaculture environment. Our innovative AI-driven automatic feeding devices are specifically designed to optimize feeding practices, enhancing efficiency while promoting sustainable fish and shrimp farming at every stage.

Our product development strategy embodies a holistic and innovative commitment to advancing Indonesia's aquaculture sector. By leveraging cutting-edge technology, we aim to create a sustainable and efficient value chain from upstream to downstream.



Amy Novogratz
Aqua Spark

eFishery's technology serves the farmer, enabling them to produce optimally, resulting in higher quality product, lower environmental impact and increased profitability, while the data gathered offers market access and financing to farmers while facilitating traceability across the supply chain. Their farmer first focus, backed by a digital cooperative model, in an industry of over 90% small scale farmers, changes the playing field and gives small scale farmers the power of big industry.



Product List - Technology



Development Journey

- **End of 2021**
Initiation of the "final form" feeder design.
- **End of Q2 2022**
Phasing the final feeder design into multiple iterations.
- **Q3 2022**
Piloting of the new feeder control box.
- **Q4 2022**
Pre-commercial testing.
- **2023**
Full commercial launch.

eFeeder 5

The eFeeder 5 is an advanced intelligent feeding system designed to transform the aquaculture industry. This innovative device automates the feeding process, ensuring that fish and shrimp receive optimal nutrition at the right times. By integrating advanced technology, the eFeeder 5 precisely dispenses feed based on predefined schedules and water quality parameters, enhancing the overall efficiency of feeding practices.

The system is managed through a user-friendly mobile app, which allows farmers to monitor feed consumption, adjust feeding patterns, and receive real-time alerts. This connectivity empowers farmers to optimize feed utilization, reduce manual labor, and ultimately achieve higher yields with increased efficiency.



eFeeder 5 represents our unwavering commitment to delivering solutions that enhance efficiency and precision in aquaculture. As the latest version of our intelligent feeding system, eFeeder 5 is engineered to be stronger, smarter, and faster.

Key Features

- **Automatic Feeding**
Automates feeding to ensure precise and consistent delivery based on specific schedules and environmental conditions.
- **Real-Time Monitoring**
With enhanced online connectivity, farmers can set and monitor feeding operations in real-time via a mobile app.
- **Efficiency and Productivity**
Optimizes feed usage and minimizes waste, leading to increased productivity and better yields.

Benefits

- **Accelerate Growth**
A sustainable diet helps fish and shrimp grow faster.
- **Optimizing FCR**
Even distribution and maintained feed nutrition make the Feed Conversion Ratio (FCR) more optimal.
- **Increase Production**
Economical feeding, faster harvests, and efficient labor combine to double profits.
- **Improving Water Quality**
Less uneaten feed reduces waste, improving water quality and the health of aquatic organisms.

Improved Connectivity

- **Faster Setup**
Up to 3x faster setting speed.
- **Automatic Logging**
Real-time feed log data without the need for manual synchronization.
- **Remote Access**
Configure settings from anywhere.
- **Performance Monitoring**
Real-time monitoring of feeder conditions and performance.

Durability Enhancements

- **Stronger Components**
Upgraded sockets and internal electrical components to withstand harsh pond environments.

eFeeder 5 embodies the future of aquaculture feeding systems, combining advanced technology with practical benefits to help farmers achieve greater success in their operations.

Industrial Design Intellectual Property: automatic fish feeding machine
No certificate:IDD000067833
Issuance date: 30 November 2023

Industrial Design Intellectual Property: automatic shrimp feeding machine
No certificate:IDD000068358
Issuance date: 28 December 2023

Environmental Performance



Development Journey

- Q2 2023
Piloted power source integration.
- Q3 2023
Full integration of the eFeeder 5S with its power source and comprehensive internal testing.

eFeeder 5s

The eFeeder 5S represents the next generation of intelligent feeding systems, merging the advanced capabilities of the eFeeder 5 with solar power for an eco-friendly solution. This innovative system automates the feeding process while minimizing environmental impact. Equipped with high-efficiency solar panels, the eFeeder 5S ensures reliable operation, even in remote areas with limited electricity access. Farmers benefit from precise feed distribution,

reduced labor costs, and a smaller carbon footprint, all while maximizing aquaculture yields.

This next-generation eFeeder, powered by a solar panel, is designed for sustainable productivity and scalability, with off-grid power source capability via battery and solar panel integration



Environmental Performance

The eFeeder 5S is specifically designed to meet the needs of ponds and fish farms with limited access to traditional energy sources. While it shares the core principles and features of other eFeeder variants, the eFeeder 5S stands out by incorporating alternative energy sources, such as solar panels and batteries.

This innovative design offers a valuable opportunity for farmers who lack reliable electricity access, enabling them to significantly increase productivity and profitability that were previously constrained by energy limitations.



Key Features

- **Renewable Energy Power**
Utilizes solar panels combined with a battery system to ensure continuous operation in remote locations without access to electricity. This reduces energy consumption.
- **Enhanced Durability**
Equipped with more durable components, including an improved motor dosing system and thrower, to withstand challenging farm conditions.



Environmental Performance



Development Journey

- End of 2021**
Initiation of the development phase for the “final form” of the eFeeder 5Pro.
- End of Q2 2022**
Progression of the “final form” into several iterations, refining the design and functionality.
- 2023**
Development and rigorous testing of the new feeder subsystem to ensure optimal performance and reliability.

eFeeder 5Pro

The eFeeder 5Pro represents the pinnacle of our feeder technology, offering enhanced reliability, accuracy, and durability. This advanced iteration builds upon the successes of the eFeeder 5, integrating improvements to meet the evolving needs of aquaculture operations.

eFeeder 5Pro is designed to deliver precise and consistent feeding while withstanding the demanding conditions of aquaculture environments, ensuring farmers can achieve higher efficiency and productivity.



Environmental Performance

Each region presents its own unique challenges and opportunities in aquaculture. The eFeeder 5Pro is specifically engineered to address these diverse conditions, offering robust solutions for extreme environments and varying pond shapes.

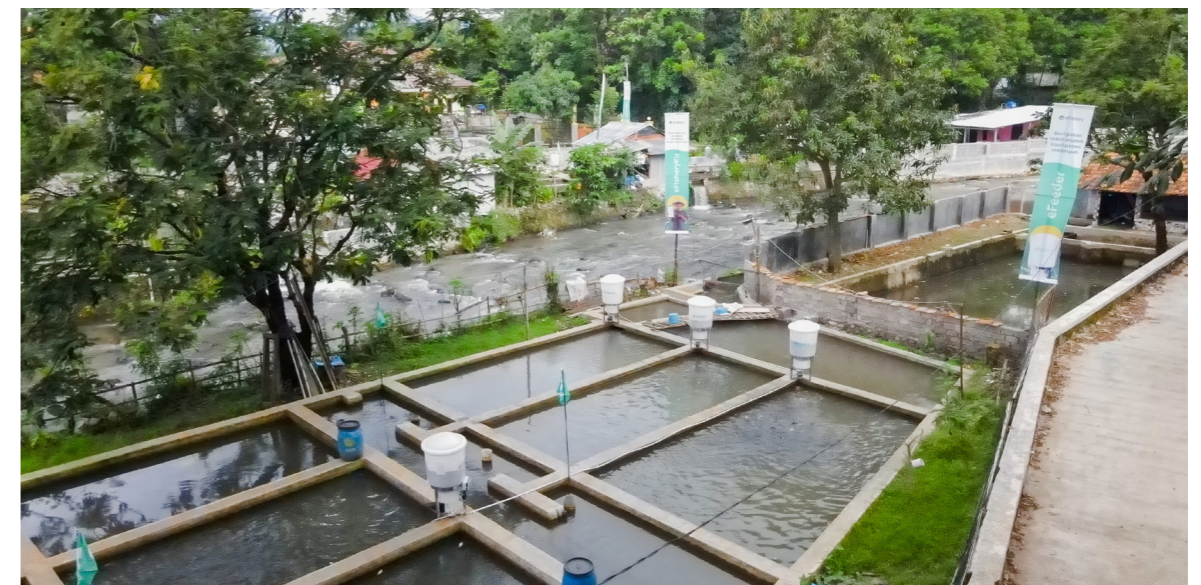
Key Features

- Enhanced Durability**
Built with more durable components to withstand harsh conditions.
- Improved Sensors**
Equipped with advanced sensors for precise feed ejection and accuracy.
- Versatile Compatibility**
Designed to handle various pond shapes and feed types.

Benefits

- Increased Component Durability**
Ensures long-lasting performance in demanding environments.
- Enhanced Feeding Accuracy**
Sensors improve the precision of feed distribution.
- Simplified Maintenance**
Easier to maintain and service.
- Versatile Feed Compatibility**
Capable of handling wet or fermented feed (up to 40% RH).
- Anti-Stall and Anti-Ratholing**
Prevents feed blockage and ensures smooth operation.

The eFeeder 5Pro is crafted to optimize cultivation practices across diverse and challenging conditions, delivering reliable performance and enhanced efficiency.



Industrial Design Intellectual Property: automatic fish feeding machine
No certificate:IDD000067833
Issuance date: 30 November 2023

Industrial Design Intellectual Property: automatic shrimp feeding machine
No certificate:IDD000068358
Issuance date: 28 December 2023

Environmental Performance



eFeeder Mini

The **eFeeder Mini** is a compact and cost-effective feeding solution designed specifically for small-scale aquaculture operations. It provides a streamlined, automated feeding experience, making it accessible and efficient for farmers with smaller pond segments.

Development Journey

- **Q1 2023**
Introduced with a solar panel power source and a feature to weigh feed using a crane scale.
- **Q2 2023**
Updated to Version V1.3, addressing field findings and improvements.
- **Q3 2023**
Updated to Version V2, featuring a redesigned goal platform and a 360° thrower replaced by a platform on the edge of the pool with a 90° thrower.



Environmental Performance

The **eFeeder Mini** is designed to address the unique needs of small-scale aquaculture operations, particularly those with round biofloc ponds and other small pond environments. Unlike the original eFeeder, which is optimized for larger setups, the eFeeder Mini is tailored to meet the specific requirements of smaller, more intricate systems.

Challenges Addressed

- **Size and Scale**
Small ponds require a compact and adaptable feeder due to their limited scale.
- **Feeding Precision**
Small ponds demand precise feed distribution to ensure even coverage and efficient feed usage.
- **Space Constraints**
The physical dimensions of small ponds limit the use of larger feeders, necessitating a streamlined solution.

Key Features

- **Compact Design**
Specifically designed for small-scale ponds, including round biofloc systems.
- **Automated Feeding**
Delivers precise and consistent feed distribution tailored to small pond environments.
- **User-Friendly Interface**
Facilitates easy setup and monitoring of feeding schedules and consumption.

Benefits

- **Precision Feeding**
Integrated weighing feature ensures accurate feed measurement, preventing over or underfeeding and optimizing feed usage.
- **Reduced Feed Waste**
Accurate distribution minimizes feed wastage, enhancing overall efficiency.
- **Upgraded Thrower Mechanism**
The shift from a 360-degree thrower to a 90-degree thrower on the pool's edge allows for more targeted feed delivery, reducing feed loss and improving coverage.
- **Biofloc Pond Compatibility**
Specifically designed to meet the needs of biofloc systems and small pond segments, accommodating various aquaculture setups.

The **eFeeder Mini** offers an effective, tailored solution for small-scale aquaculture, providing precise, efficient feeding and enhancing productivity for farmers with specialized pond requirements.



Environmental Performance



Katara

Water quality monitoring portable device.

Development Journey

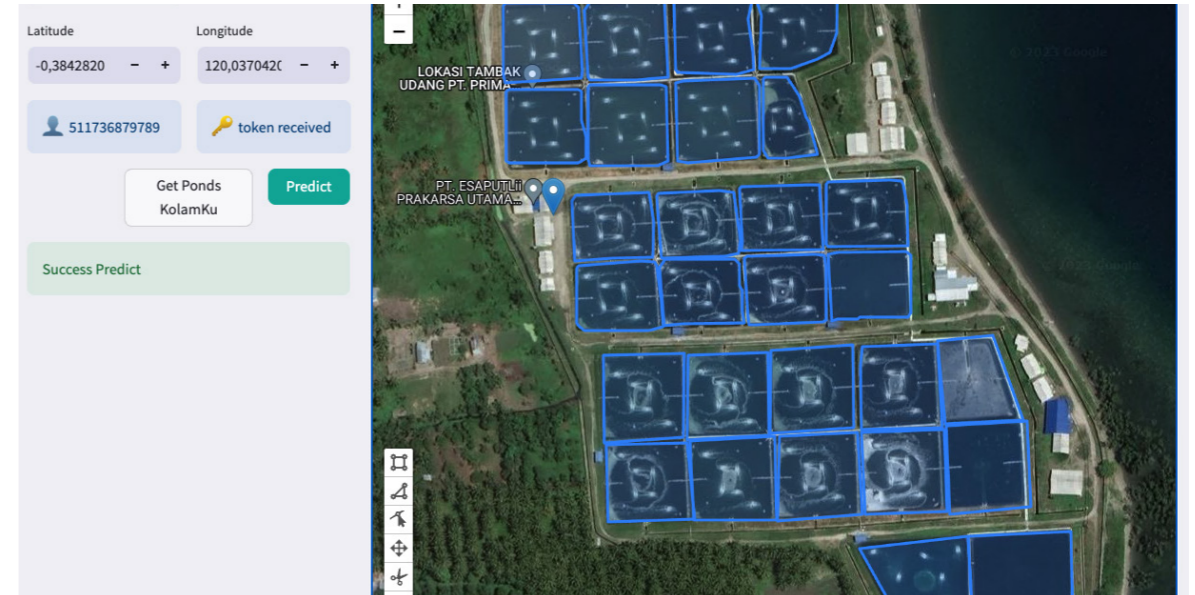
- Q1 2023**
Handover of the Water Quality Monitoring Device (WQMD) prototype from R&D to Product Development, including product discovery and development of the early prototype.
- Q2 2023**
Piloting of the portable Water Quality Monitoring System (WQMS).
- Q3 2023**
Pre-commercial piloting phase.

Key Features

- Main Farming Parameters**
pH, Dissolved Oxygen, Temperature and Oxidation-Reduction Potential (ORP).
- Expandable Parameters**
Ammonia (NH4), Total Suspended Solids (TSS) and Salinity.
- Real-Time Monitoring**
Continuously tracks water quality parameters.
- Monitoring Options**
View data directly on the device or via a mobile app, supported by "always-connected" capabilities.
- Real-Time Alerts**
Receive instant notifications for anomalies along with treatment recommendations.



Environmental Performance



AquaCapture

Satellite imagery for pond verification. Satellite imagery is a powerful tool for determining the active or inactive status of ponds, enabling more accurate pond acquisition and effective monitoring of farmers' activities associated with eFishery. By leveraging historical data, this technology enhances precision in identifying pond status.

The current pond monitoring process relies heavily on historical data without the integration of advanced technology, making it challenging to oversee thousands of ponds across Indonesia. The use of Satellite Imagery is crucial for accurately identifying pond status and mitigating the risk of information misuse.

Key Features

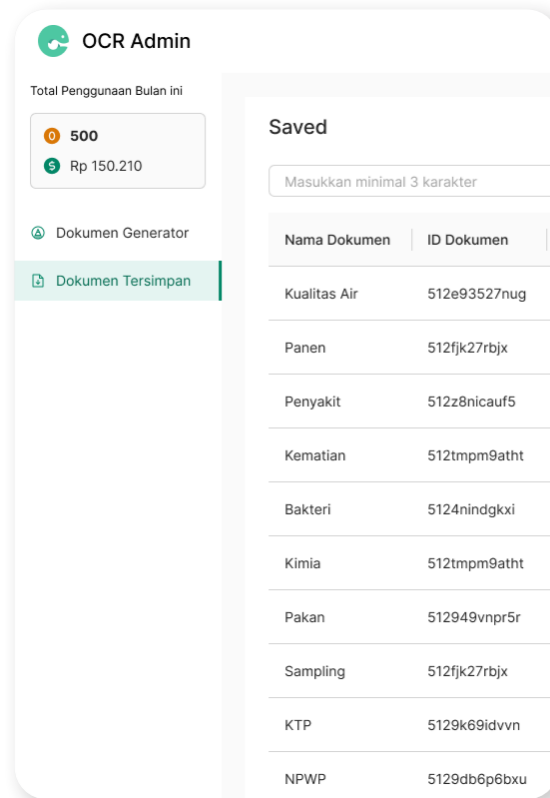
- Speedy Pond Verification**
Enables quick and efficient verification of pond status.
- Scalable Data Acquisition**
Facilitates the collection of potential pond data across Indonesia and globally.
- Transaction Verification**
Enhances pond verification for transactions, including financing risk assessments.
- Pond Monitoring**
Augments farm monitoring by integrating with IoT devices.

Development Journey

- Q3 2023**
• Release of Shrimp Pond Identification in Indonesia.
• Creation of Intelligence Models for Active and Inactive Pond Identification.
- Q4 2023**
• Adoption of Artificial Intelligence Models for Active and Inactive Pond Identification.
• Development of Identification Model Algorithms.
• Research on Remote Sensing Algorithm Development.

Benefits

- Near Real-Time Monitoring**
Provides up-to-date monitoring for all ponds in Indonesia, covering both location and activity status.
- Loan Risk Mitigation**
Ensures the quality of shrimp farmer applications for programs like Kabayan, reducing potential loan risks.
- Comprehensive Coverage**
Offers the capability to monitor 100% of ponds effectively.



Self-Service OCR Platform with Custom Models

The Self-Service OCR Platform with Custom Models is a powerful and intuitive solution designed to empower businesses and individuals to efficiently and accurately perform Optical Character Recognition (OCR) tasks. This platform integrates the advantages of OCR technology with the flexibility to create custom models, enabling users to effortlessly extract text and data from images tailored to their specific needs.

Development Journey

- Q3 2023**
Development of the end-to-end self-service OCR platform MVP, with initial implementation focused on fish farming records.
- Q4 2023**
Enhancements to the user interface for the self-service OCR MVP.

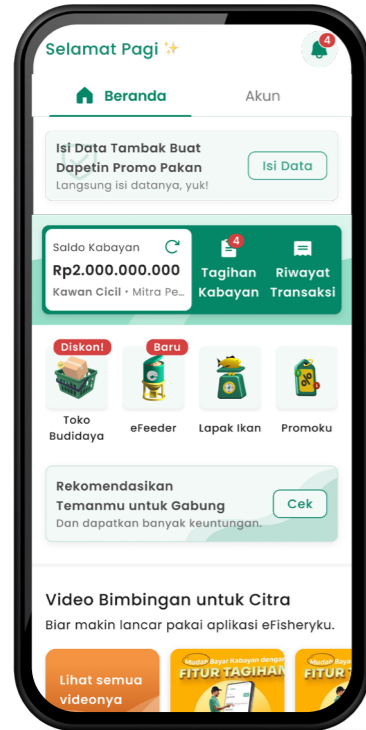
In today's digital landscape, the sheer volume of documents and images containing text data is immense, making manual data entry both time-consuming and prone to errors. The OCR Platform addresses this challenge by automating the process, offering significant improvements in speed, efficiency, and accuracy.

Benefits

- Speedy Data Extraction**
The platform allows for quick data collection by simply taking a photo of a farm logbook, breaking down barriers to data-driven cultivation. It also facilitates rapid data extraction from ID card photos, streamlining application processing in the financing business.
- Enhanced Efficiency**
The self-service OCR platform significantly reduces the time required for manual data entry. Tasks that once took hours or even days can now be completed in seconds or minutes. This streamlines document processing workflows, ensuring that documents move quickly and efficiently through business systems. Additionally, it optimizes resource allocation by reducing the need for dedicated data entry personnel, allowing organizations to focus on more strategic tasks.
- Improved Accuracy**
OCR technology minimizes the risk of human errors associated with manual data entry, leading to higher data accuracy and reduced rework. The platform ensures consistency in data extraction by applying the same rules to every document, which is particularly critical for compliance and reporting purposes.



Environmental Performance



eFisheryku

An application designed to advance farmers' businesses and enhance farming practices, equipped with comprehensive features to strengthen farming operations.

Benefits

- Farming Traceability**
 A feature that streamlines the process of ordering feed and managing farm profiles, ensuring accurate transaction records and simplified bookkeeping. This tool provides comprehensive transparency and traceability throughout the farming process, allowing for better oversight and easier management of farm operations.



Environmental Performance



eFarm

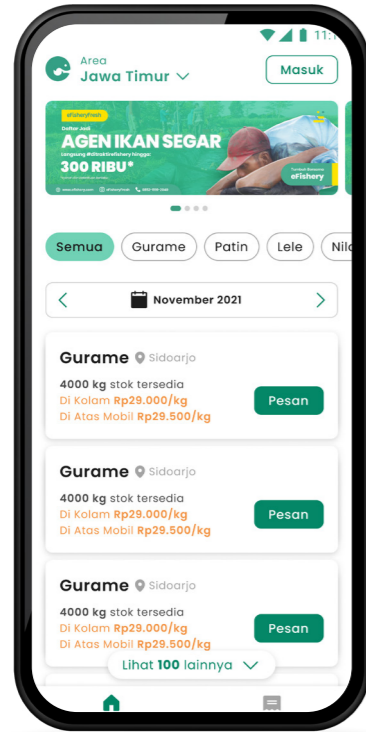
A full-featured shrimp pond management application, specifically engineered to help shrimp farmers enhance productivity and improve harvest quality.

Benefits

- Streamlined Pond Management**
 An all-in-one application designed to simplify pond management by integrating monitoring of feeding schedules, disease risks, and productivity metrics. This app allows for quick and efficient data capture, enabling farmers to manage their operations more effectively and make informed decisions with ease.



Environmental Performance



eFresh

A fish buying and selling platform, serving as a marketing facility for farmers' harvests, aimed at connecting fish suppliers with market demand.

Benefits

- eFresh platform connects producer and consumer by streamlining the buying and selling process for fish, offering a user-friendly digital marketplace. This application connects fish farmers with buyers more efficiently, ensuring fair pricing and enhanced transparency in transactions.



Environmental Performance

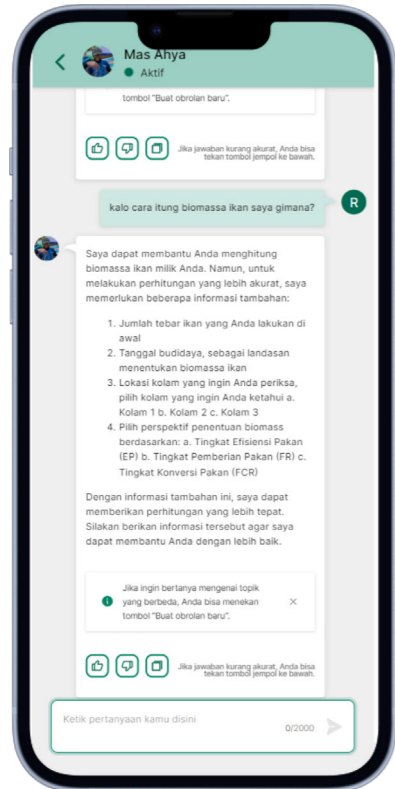
Farm Dashboard

MAP Dashboard, Harvest Prediction and Disease Prevention.

Benefits

- **Pond Verification**
A feature that displays all acquired and verified ponds, ensuring accurate tracking and management of pond assets.
- **Predicting Fish Harvest Outcomes**
A tool designed to enhance productivity and farm management by predicting harvest outcomes, allowing farmers to make informed decisions and optimize their operations.
- **Preventing Diseases in Shrimp Cultivation**
A proactive approach to disease management, aimed at improving productivity by preventing outbreaks and ensuring healthier shrimp cultivation.





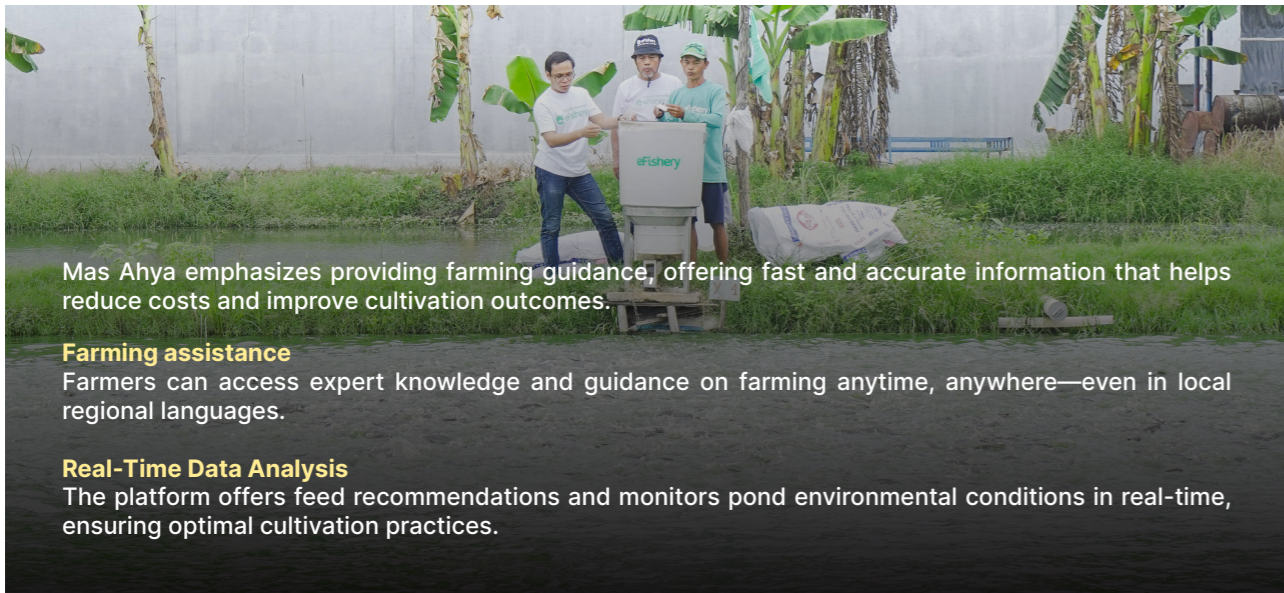
Mas Ahya

A user-friendly platform powered by large language models (LLM) based on AI generative technology through Azure OpenAI Microsoft Services, designed to answer a wide range of farming-related questions.

Development Journey

- Q3 2023**
 - AI Model Development for handling simple questions.
 - Internal Platform Implementation.
- Q4 2023**
 - Research and Development of AI Models for more complex questions.
 - Implementation of a ticket escalation mechanism.
 - Public release on the eFishery platform.

Farmers currently face challenges in accessing farming information, as they often need to rely on multiple, scattered sources. This process can be inconvenient and inefficient, requiring adaptation to various applications and features to find specific information. Mas Ahya is designed to simplify this by offering quick and easy access to cultivation information, overcoming the complexity of traditional cultivation applications. With its user-friendly interface, farmers can receive answers to their questions in less than 1 minute.



Mas Ahya emphasizes providing farming guidance, offering fast and accurate information that helps reduce costs and improve cultivation outcomes.

Farming assistance

Farmers can access expert knowledge and guidance on farming anytime, anywhere—even in local regional languages.

Real-Time Data Analysis

The platform offers feed recommendations and monitors pond environmental conditions in real-time, ensuring optimal cultivation practices.

Benefits

- Reduces Manual Answering Costs**
Saves up to 24 million per month by automating responses.
- Delivers Instant Responses**
Provides answers to farmers in under 1 minute, ensuring quick access to information.
- Increases Engagement**
Enhances farmer interaction with the eFeeder application, enhancing user engagement.
- Enhances Satisfaction**
Achieves up to 90% satisfaction in addressing cultivation-related queries.
- Minimizes Human Intervention**
Reduces the need for human involvement in answering questions by up to 80%.



Product List - Fish & Shrimp Farming



Farm Assistance

Support provided to farmers by eFishery's field technical experts.

Benefits

- Enhancing feed, disease, and overall farm management to increase farm productivity.

Disease Prediction System

Digital solution for shrimp health management. Utilizes real-time monitoring and data analysis to detect and prevent shrimp diseases, optimizing health management and reducing losses.



Benefits

- **Reduce Disease Risks**
Utilize real-time monitoring and data analysis to detect potential health issues early and prevent outbreaks
- **Prevention and Treatment**
Implement targeted treatment plans based on real-time data to manage and mitigate diseases effectively.
- **Improve Productivity**
Enhance overall farm productivity by maintaining healthier shrimp and reducing disease-related losses.

Growth Monitoring

Continuous growth monitoring to improve farm productivity.



Benefits

- **Data Analysis**
Utilizes collected data to track shrimp growth, enabling data-driven decision-making to enhance productivity.
- **Technical Support**
Offers both offline and online consultations to assist farmers with their farming practices.
- **Lab Service**
Provides access to laboratory services to ensure the health and well-being of shrimp.

Production to Harvest SOP

This product includes detailed SOPs and monitoring guidelines covering all stages from farm input to the harvest process. It ensures consistency and adherence to best practices throughout the cultivation cycle.

Benefits

- **eFishery Protocol for Harvesting**
Ensures adherence to best practices and standard procedures for effective and efficient harvesting.
- **Biosecurity Measures**
Implements stringent biosecurity protocols before, during, and after the harvest to protect shrimp health and maintain product quality.

Product Quality Management System

A comprehensive system designed to uphold the highest food safety and quality standards. This system implements rigorous procedures and standards, including HACCP (Hazard Analysis and Critical Control Points) and BRC (British Retail Consortium) certification, to ensure that all products meet international quality and safety benchmarks.

Benefits

- **Adherence to International Standards**
Ensures compliance with globally recognized food safety standards, providing assurance of product safety and quality.
- **Enhanced Product Integrity**
Promotes consistent product quality through stringent monitoring and control measures.
- **Consumer Confidence**
Builds trust and confidence among consumers by guaranteeing that products meet high safety and quality standards.

Sustainability Assurance

A comprehensive certification and verification program including BAP, ASC, and Seafood Watch

Benefits

- Ensures adherence to international standards, meeting the requirements of global buyers and promoting sustainable aquaculture practices.

Traceability

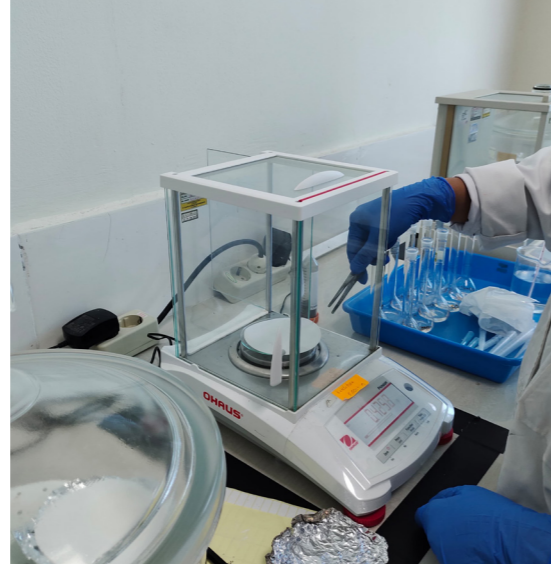
Comprehensive farm-to-fork traceability utilizing eFishery's farm technology and market applications. Features a cultivation dashboard integrated with essential farm information, including location, stock date, DOC, and more.

Benefits

- Enables tracking and tracing of products from the point of culture to the consumer, enhancing product transparency and improving farming performance.

Shrimp Disease Prediction System

The Disease Prevention System is a comprehensive data intelligence and framework designed to empower farmers with data-driven insights that enhance disease management and treatment in aquaculture. This system enables farmers to proactively prevent disease outbreaks, ensuring the sustainability of their farming cycles and improving pond performance. The Disease Prevention System helps farmers identify potential disease threats early and promotes proactive management. This leads to healthier aquaculture practices and more sustainable yields. This intelligence is designed and led by our Shrimp Health and Water Laboratory Team, under Shrimp Value Chain.



Disease Prediction for Key Risks

The system specifically analyzes and predicts the likelihood of four major diseases affecting aquaculture:

AHPND
(Acute Hepatopancreatic Necrosis Disease)

WFD
(White Feces Disease)

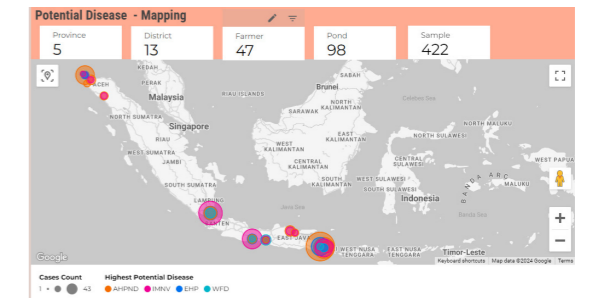
IMNV
(Infectious Myonecrosis)

EHP
(Enterocytozoon Hepatopenaei)

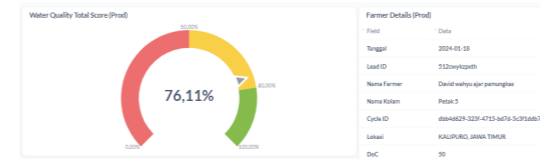


Key Features

- Informed Analysis and Support**
 The system leverages robust data analysis to generate actionable insights for farmers identified as being at risk of disease. This proactive approach facilitates timely interventions and follow-up treatment plans tailored to specific conditions in their ponds.
- National Data Integration**
 By harnessing extensive data collected across various regions, the system provides a clear picture of disease risks and trends. This regional analysis allows for an understanding of how diseases are emerging and escalating, coupled with precise accuracy levels, thereby enabling farmers to make informed decisions.



- Credible Informed Recommendation**
 The findings are integrated into both internal and external farm management applications developed by eFishery, allowing farmers to access crucial data and receive tailored treatment recommendations.
- Treatment Tracking & Follow Up**
 All analysis results and recommended treatments are logged within the application as part of the treatment realization process. Following the implementation of treatments, the field technical support team conducts follow-up assessments to evaluate outcomes based on three critical areas: water quality, shrimp condition, and disease risk.



Data Intelligence

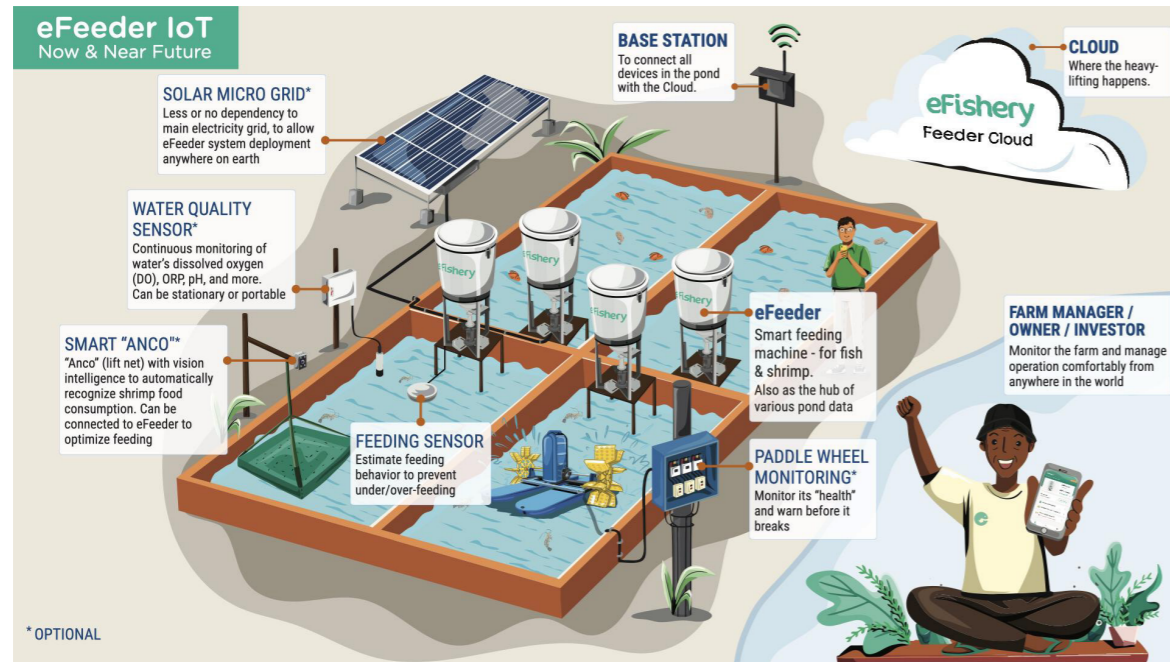
The system relies on two main data sources. These diverse datasets are meticulously analyzed to create detailed farm laboratory reports and a shrimp disease prediction dashboard.

- Water quality 15-21 parameters** collected in situ by technical support on-site and through laboratory analysis
- Shrimp Condition Metrics** 16 physical condition parameters recorded by technical support on site

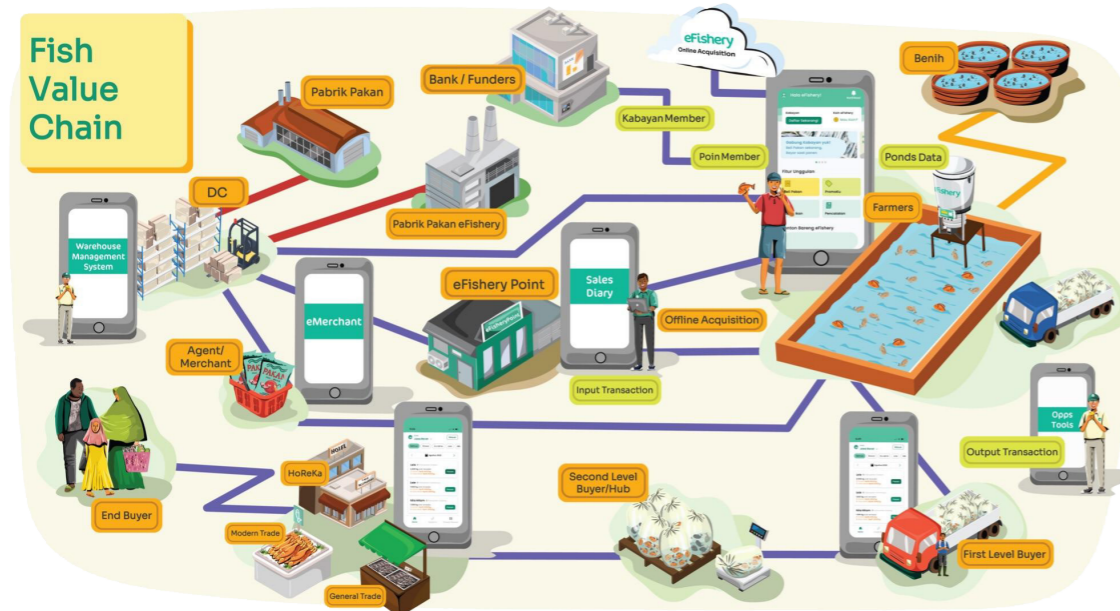
Parameter	Result	Unit	Standar	Kategori	Parameter Detail (Prod)	Yasmin
Suhu (°C)	28.20	28.00	5.58%	Sebaik standar	Kelembaban (RH)	0
pH	7.5-8.3	8.00	5.71%	Di bawah standar	Kelembaban (RH) - 10	0
DO (ppm)	4	4.00	5.58%	Sebaik standar	Kelembaban (RH) - 20	0
Sekeloa (ppm)	20.20	30	5.01%	Di bawah standar	Kelembaban (RH) - 30	0
Transparansi (cm)	20-40	50	0.00%	Sebaik standar	Kelembaban (RH) - 40	0
Water Turbidity (NTU)	100-1500	1000	0.00%	Di bawah standar	Kelembaban (RH) - 50	0
Salinitas (ppt)	10	10.00	5.58%	Sebaik standar	Kelembaban (RH) - 60	0
Ca (mg/l)	100-200	100	1.00%	Di bawah standar	Kelembaban (RH) - 70	0
Mg (mg/l)	1000	1000	1.41%	Di bawah standar	Kelembaban (RH) - 80	0
NO3 (ppm)	0-1	0.00	0.00%	Sebaik standar	Kelembaban (RH) - 90	0
NO2 (ppm)	0.00-0.05	0	5.58%	Sebaik standar	Kelembaban (RH) - 100	0
NO (ppm)	0-1	0.00	5.58%	Di bawah standar	Kelembaban (RH) - 110	0
Phosphate (ppm)	0.5	0.00	5.58%	Sebaik standar	Kelembaban (RH) - 120	0
SO4 (mg/l)	0-5	0.00	1.71%	Di bawah standar	Kelembaban (RH) - 130	0
Ammonia (ppm)	0-5	0	5.58%	Sebaik standar	Kelembaban (RH) - 140	0
Dissolved Oxygen (ppm)	0-5	0	5.58%	Sebaik standar	Kelembaban (RH) - 150	0



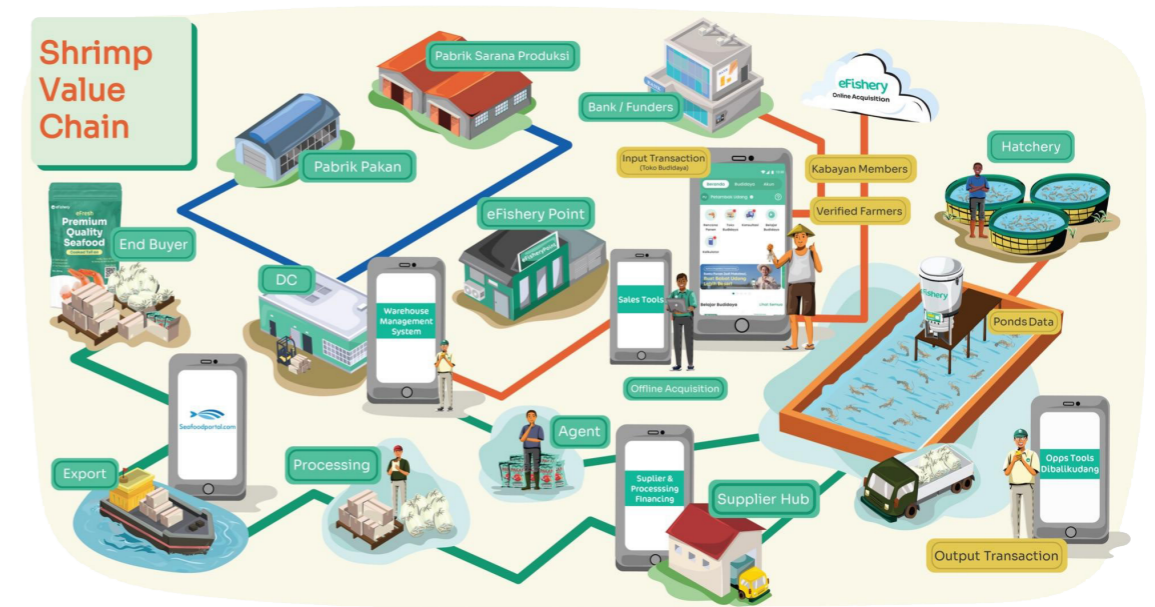
Our offer for better technology



Our offer for fish ecosystem



Our offer for shrimp ecosystem



eFeeder technology has been a tremendous asset in maintaining regular and scheduled feeding for the fish. I truly value how it minimizes 'human error' by ensuring that feeding times and amounts remain consistent'.

Marco
Fish Farmer, Bogor

"eFeeder has significantly streamlined my feeding routine, which I perform four times a day. Additionally, the Day of Culture (DOC) calculation feature is incredibly convenient—it takes care all the math for me, so I don't have to do it manually.



Abdul
Fish Farmer, Bogor



Since I started using this smart feeder, I've saved a lot of time and energy. Now I can clean the pond and handle other tasks without worrying about being late with feeding my shrimp.

Andi Asmoro
Shrimp Farmer, Purworejo

Environmental Performance



Our Value Creation

(C4, F28, 413-1, 413-2)

We are dedicated to empowering farmers, particularly smallholders, through various initiatives: as part of Indonesia's largest aquaculture community, we offer high-quality feed at affordable prices, ensure harvest guarantees with a commitment to providing offtake and supporting export market access, and deliver comprehensive support through technology and field technical assistance.



eFishery is dedicated to empowering fish farmers through three key initiatives:

- 1. Affordable Supply Inputs**
We offer feed and non-feed inputs at competitive prices, with flexible payment terms that extend until harvest time. This helps farmers manage costs and cash flow more effectively.
- 2. Advanced Technology and Data Support**
We provide technology, including the eFeeder, and offer comprehensive data analysis to increase productivity. Our technology and insights help farmers optimize their operations and increase their yields.
- 3. Competitive Harvest Pricing**
We purchase harvested fish at favorable prices, ensuring that farmers receive better returns compared to market rates. This approach supports farmers' profitability and sustainability.

Environmental Performance

We focus on freshwater fish farming, using a circular cycle to enhance sustainability and efficiency. Fish are fed protein-rich pellets to promote growth. Once they reach the desired size and quality, they are sold. After selling, the pond is prepared for the next cycle—adjusting pH for ground ponds or ensuring cleanliness for concrete ponds. Farmers then receive fish seeds from suppliers, ensuring a continuous cycle. This ongoing process maintains resource efficiency and supports sustainable farming.

We create value for shrimp farmers by focusing on key fundamentals by establishing essential fundamentals: reducing farming costs through the use of sustainable feed, enhancing productivity and profitability with advanced technology and monitoring support, and promoting responsible and sustainable farming practices through certifications such as ASC and Seafood Watch. Additionally, we enhance shrimp health performance by providing lab services that contribute to optimal health outcomes.



Knowledge Community
Part of Indonesia's largest aquaculture community.



Affordable Feed
High-quality feed at affordable prices.



Harvest Guarantee
Commitment to providing offtake guarantees and supporting export market access.



Support Assistance
Access to technology and field technical assistance for farm management.



Health Service
Lab services to support shrimp health performance.



Environmental Performance

Seafood with a Story - promoting quality, transparency, trust and sustainable production. What sets eFishery seafood apart is our advanced technology that optimizes farming by closely monitoring feed efficiency and water quality, ensuring an ideal environment for growth. Additionally, our commitment to traceability offers consumers full transparency regarding the origin and quality of our fish and shrimp, further distinguishing our products.

Fish and shrimps raised under these optimal conditions, free from excessive chemicals and of superior quality. This approach enhances immediate health while supporting sustainable farming practices, ensuring that natural resources remain available for future generations. With this environmentally friendly approach, we guarantee that farming practices not only produce high-quality products but also protect the environment and support the well-being of surrounding communities.



1. Farmers Empowerment

Farmers are trained to use eFishery technology.
High-quality seed and specially formulated feed are provided.

2. Feed Efficiency

- Automated Feeding System**
We use intelligent automated feeding systems to ensure right amount of feed, reducing waste and increasing efficiency.
- Proper Feed Formulation**
The feed we provide is specially formulated to meet the nutritional needs without overfeeding.
- Growth Monitoring**
By regularly monitoring growth using data collected from sensors, we can adjust feeding as needed, ensuring optimal growth without overfeeding.
- Proper Feed Formulation**
The feed we provide is specially formulated to meet the nutritional needs without overfeeding.

Environmental Performance

3. Best practices

- Water Quality Monitoring System Tool Sensors**
This tool is used to monitor key parameters such as temperature, pH, and oxygen levels.
- eFeeder**
Automated systems ensure timely and efficient feeding.
- Natural Control**
We use natural control methods to maintain health, reducing need for chemicals.
- Maintain Water Quality**
By continuously monitoring water quality using sensor technology, we can maintain optimal water conditions without the need for excessive chemicals.
- Best Practises**
We implement best practices in responsible and sustainable farming, avoiding the use of potentially harmful chemicals.

4. Transparency and traceability

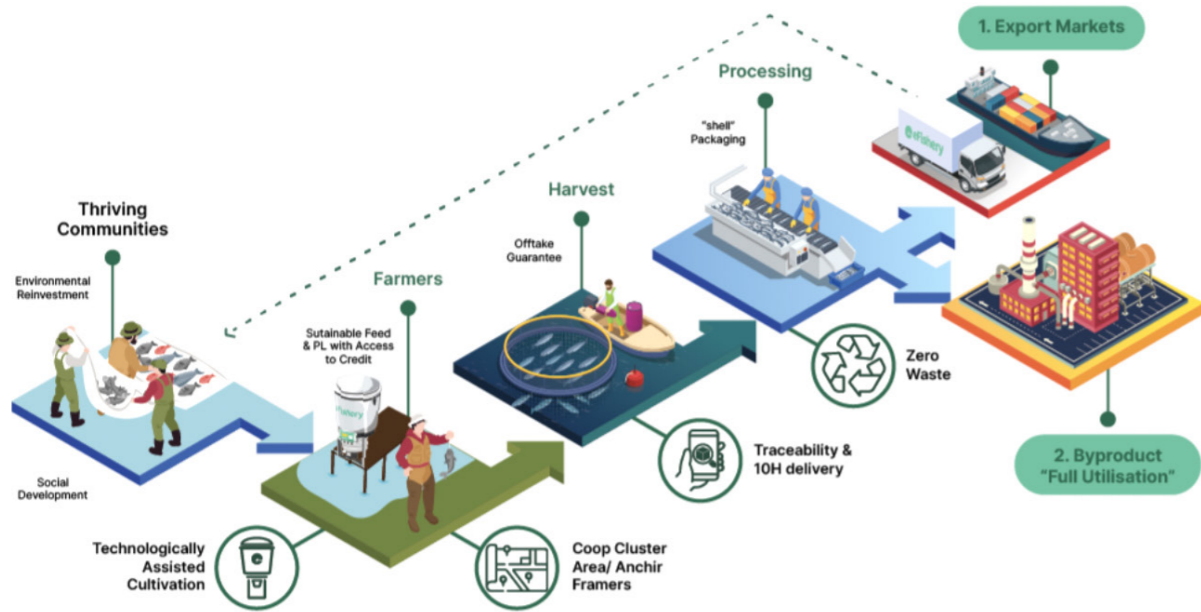
We offer full traceability and security through vertical integration and world-class quality control standards.



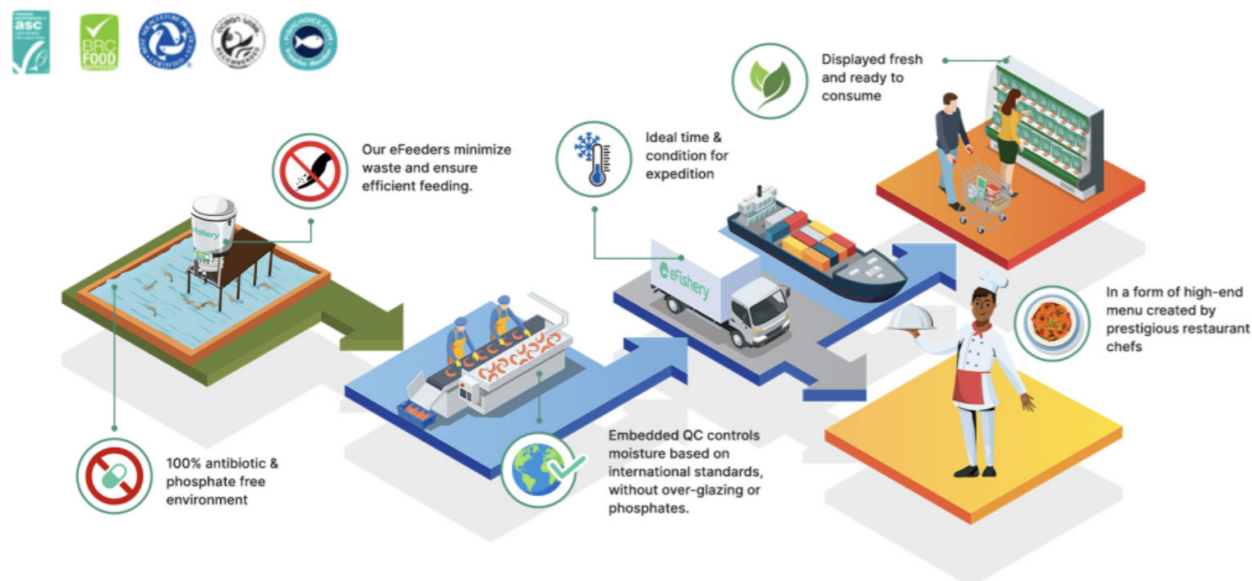
We first met eFishery in 2018, when many were wary of hardware investments in traditional industries like aquaculture. However, at Wavemaker Partners, we are committed to backing founders with unique insights who are tackling compelling local problems in Southeast Asia. From our first meeting with Gibran and Chrisna, we were impressed by their deep understanding of aquaculture and the significant impact their feeder had on reducing feed waste and boosting farmers' incomes. Today, eFishery has 95,000 farmers in its ecosystem and the largest aquaculture cooperative, easing farmers' financial burdens by offering a feeder rental model and a marketplace for accessing feed and loans, as well as selling fish. Additionally, eFishery supplies its own fresh products and ensures their traceability, providing transparency for consumers and partners. As a sustainability-focused fund, we believe eFishery strongly aligns with our mission, particularly in their contribution to UN Sustainable Development Goal #2 (zero hunger), and supports our goal of driving transformation in emerging markets.

Paul Santos
Wavemaker

Our Fish Journey



Our Shrimp Journey



Product Quality Control



eFishery adheres to a Quality Management System (QMS) for product processing aligned with HACCP (Hazard Analysis Critical Point) standards. Every step of our product processing is meticulously monitored to ensure that our products are safe for consumption and meet the highest quality standards. We collaborate closely with trusted farmers to ensure that our products, from upstream to downstream, are free from harmful chemicals and antibiotics, guaranteeing safety and quality.

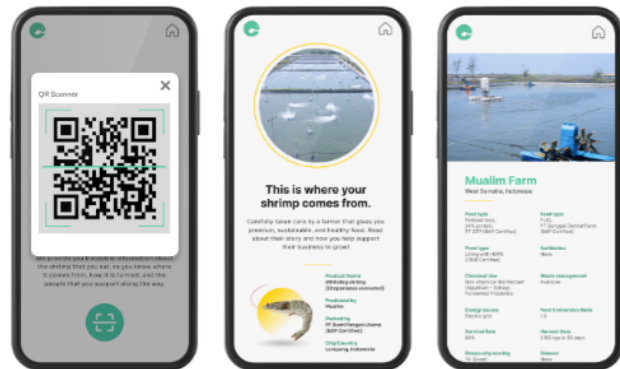
We collaborate with processing that is implementing QMS (HACCP, BRC, and other food safety standards under recognized Global Food Safety Initiative) certified to guarantee the safety of our products. Our product sourcing involves training and partnering with local farmers through comprehensive programs to ensure high-quality production. We work with organizations like BAP, ASC, and Seafood Watch to certify our farmers, ensuring their practices meet international and food safety standards. To uphold our integrity, we implement a robust customer complaint handling system, addressing any quality concerns promptly and taking corrective actions as needed.



Supply Chain and Traceability

Our farm-to-fork traceability tools feature a comprehensive cultivation dashboard that integrates essential farm information such as location, stock date, and Day of Culture (DOC). In the future, we plan to enhance this system to provide detailed tracking from feed to fork, incorporating hatchery and broodstock data for a more complete traceability solution.

Traceability



- 1** Farm to Fork traceability tool is available and active for each batch.
- 2** Cultivation dashboard can now be integrated with fundamental farm information (such as Location, Stock Date, DOC, etc.).
- 3** Feed and feed ingredients development process is underway.
- 4** Hatchery and broodstock development process is underway.

The tracking activities are categorized into two types: **Backward Trace** and **Forward Trace**.

Backward Trace

Backward Trace involves tracing and identifying issues from the finished product all the way back to its raw materials and sources. This process ensures that any problems encountered can be traced to their origins. Some principles include below.

1. Problem Identification

Start with identifying the issue in the finished product, such as a printing mistake on packing material or a deviation in ingredient quality.

2. Data Collection

Packing Material Issue

- **Incoming Data**
Includes supplier name, address, arrival date, code, arrival time, product type, total quantity, inspection details, and vehicle inspection.
- **Delivering Data**
Supplier information, total quantity, material name, serial numbers, and purchase order details.
- **Storing Data**
Cleanliness inspection details of the storage area.
- **Inventory Card Data**
Type of material, card number, stock movement dates, and remaining stock information.

Ingredient Deviation

- **Incoming Data**
Similar to packing material, including supplier details, arrival information, and product inspection.
- **Delivering Data**
Supplier details, quantity, material name, serial numbers, and purchase orders.
- **Storing Data**
Cleanliness inspection.
- **Inventory Card Data**
Material type, card number, stock movement dates, and remaining stock.
- **Certificate of Analysis (COA)**
Information on microbiology, chemistry, and physical aspects of the ingredient.



Forward Trace

Forward Trace involves tracking and identifying issues from the finished product at the factory all the way through shipping to the customer. This process helps pinpoint where problems may have occurred after production. Some principles include below.

1. Problem Identification

Start by gathering information about the complained product, including production details such as production name, size, production date, supplier code, and packing code.

2. Data Collection

Finished Goods Inventory

Collect data from the Production Planning and Inventory Control (PPIC) and chill storage to understand the quantity and details of the complained products.

Loading and Shipping Information

- Loading Map**
 Record data such as export date, container number, seal number, buyer name, brand, export quantity, and the quantity of the complained product in the container at loading time.
- Stuffing Position**
 Document the position of the complained product within each row of the container.

Export Documentation

- Export Data**
 Include details such as the importer country, buyer name, container name and number, and both shipping ports.
- Loading Inspection Report**
 Gather information on the starting time, total quantity of Master Cases (MC), buyer name, importer country, production date, container number, container inspection, visual inspection, and container temperature (front, middle, back).

Invoice Information

- Invoice Details**
 Include invoice number, importer/manufacturer, shipping details, shipment form, commodity, brand, product name, size, total amount, and price.

This thorough approach ensures that any issues with the finished product can be traced forward through the entire distribution process, helping to identify and address problems effectively.



Scan in/out warehouse



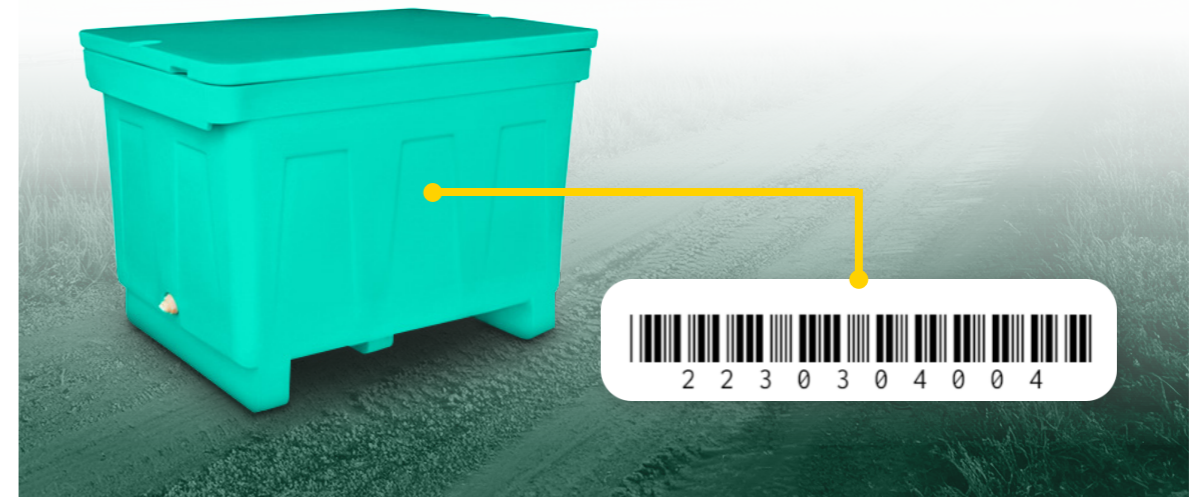
Tracing raw material on transport



Integration with IMS



Integration with Factory activity



The barcode system for downstream products provides key details about the product's processing and certification status. This code is structured to capture essential information from processing through to the final product, ensuring complete traceability.

2

Province Code
 Represents the province where the product was processed. This code helps in identifying the geographical location associated with the processing of the product.

230

Processing Julian Date
 Indicates the Julian date of the processing. This date provides a numerical representation of the processing day within the year, which is crucial for tracking the timeline of processing.

3

Last Digit of the Year
 Represents the last digit of the year in which the processing occurred. This helps in identifying the specific year of the processing event.

0

Raw Material Status
 Indicates the status of the raw material. In this case, 0 signifies that the material is in its raw state before any further processing.

4

Supplier Code
 A unique identifier assigned to the supplier of the raw material. This code ensures traceability to the source of the raw materials used in processing.

00

P Treatment
 Represents the type of treatment applied to the product. 00 may signify a standard or non-specific treatment type, which is used to denote the processing method or treatment level.

4

Certified
 Indicates certification status of the product. The code 4 suggests that the product is certified according to specific standards or requirements.





Budhi Wibowo
Chairman of the Indonesian Fishery Producers Processing & Marketing Association (AP5I).

PT. Multidaya Teknologi Nusantara, known as eFishery, has been a member of AP5I since 2018. eFishery is Indonesia's pioneering aquaculture startup focused on delivering sustainable solutions for fish and shrimp farming. By harnessing data and technology, eFishery enhances fish farmers' productivity and farming quality, provides capital access, and facilitates market expansion. In the future, the aquaculture sector has substantial potential to address food security challenges, a potential that eFishery is actively developing through its innovative solutions.

One of the pressing global issues today is ensuring adequate food supply amid the uncertainties of climate change. eFishery, as a member of AP5I, plays a proactive role in addressing this challenge by collaborating with other AP5I members to provide raw materials for the fisheries processing industry. Additionally, eFishery is expanding into downstream activities as part of its business development. AP5I acknowledges eFishery's efforts and anticipates that the company will become a key player in the fisheries processing sector, capable of exporting to international markets due to its strong cultivation links. eFishery is recognized as a pioneering fisheries technology company that accelerates the development of the aquaculture industry from upstream to downstream through technological advancements.





Our Quality Products

(C4,FB-AG-430a.3, 416-1)

Fish Product List, Description, and Benefits

eFishery offers a diverse range of fish products under three categories: **Live, Fresh, and Frozen**. All products are sourced from eFishery's partner farmers and are sold to key accounts that collaborate with eFishery. Each fish and shrimp product undergoes a stringent quality control process to ensure only the highest-quality products reach consumers. eFishery produces and markets eleven main fish commodities.



Catfish



Gourami



Milkfish



Bonylip Barb



Tilapia



Pomfret



Hoven Carp



Carp



Pangasius



Climbing Perch

Nutritional Benefits

Fish are well-known for nutritional value, rich in protein, minerals, healthy fats, and multivitamins. eFishery's Tilapia, for instance, contains 20 grams of protein and 1.70 grams of fat per 100 grams. The high protein content is beneficial for oil absorption, gel formation, and antioxidant properties. Fish are an excellent source of Omega-3 fatty acids, which contribute to heart health and overall wellbeing.



"The values at eFishery that align with my personal aspirations are Farmer First and Rapid Growth & Innovation. At eFishery, we listen to farmers and provide the solutions they need. Our innovations have brought conventional farmers a step forward, all while prioritizing the Green Jobs aspect. This collaborative process drives progress for companies, farmers, and the government in the fields of economy and aquaculture, both regionally and nationally. Our department's initiatives focus on providing products and services that support sustainability throughout eFishery's operations, from upstream to downstream. This includes expanding into various regions, supporting transaction processes such as AR/AP, Coop, and DFF Process, and offering fresh, frozen, or value-added products to meet demand from key accounts and end customers, whether through retail stalls or other channels",
Junandar Panggabean, SVP of Fish Business

Shrimp Product List, Description and Benefits



Frozen Shrimp HOSO (31-40, 41-50, 51-60 (pcs/kg))

- Premium quality
- No dipping (eFishery's protocol)
- Chemical free treatment
- Gross weight : 2000 gr
- Net weight : 1800 gr

Frozen Shrimp Raw Peeled Deveined (26-31, 31-40, 41-50 (pcs/lb))

- Premium quality
- No dipping (eFishery's protocol)
- 12 hours for STTP treatment
- Glazing compensated 10%
- Gross weight : 500 gr
- Net weight : 500 gr



Frozen Shrimp Raw PDO (26-31, 31-40 (pcs/lb))

- Premium quality
- No dipping (eFishery's protocol)
- 12 hours for STTP treatment
- Glazing compensated 10%
- Gross weight : 500 gr
- Net weight : 500 gr

Frozen Cooked Shrimp (PD, PDO) (31-40, 41-50, 51-60 (pcs/kg))

- Premium quality
- No dipping (eFishery's protocol)
- 12 hours for STTP treatment
- Glazing compensated 10%
- Gross weight : 500 gr
- Net weight : 500 gr



Nutritional Benefits

Whiteleg vannamei shrimp are an excellent source of protein and essential omega-3 fatty acids. It provides key vitamins and minerals such as vitamin B12 and selenium, supporting overall wellbeing and immune function.

Shrimp

Nutrition Facts	
about 8 servings per container	
Serving size	100g
Amount per serving	
Calories	100
	% Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
<i>Trans Fat</i> 0g	
Cholesterol 0mg	0%
Sodium 130mg	6%
Total Carbohydrate 2g	1%
Dietary Fiber 1g	3%
Total Sugars 0g	
Include 0g Added Sugar	0%
Protein 22g	43%
Vitamin D 0mcg	0%
Calcium 35mg	2%
Iron 0.3mg	2%
Potassium 420mg	8%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



I really appreciate the value of eFishery that wants to empower farmers with Farmers First. Because we know that farmers are the ones who are least allowed to make big profits, but if they lose, they are usually the ones who bear the biggest losses. The initiative from Downstream to support this value is to present farmers' harvests directly to retailers in the market with the DFF and Owning Lapak mechanisms, so that it can minimize the function of the middleman, **Yeri Afrizon, VP of Commercial Downstream**



Initiatives & Investment Pipeline

Our Commitment to Sustainability

Our shrimp is produced at the best quality process and lowest environmental impact using environmentally-friendly technology to optimize water sources and reduce waste.

Consumer Information:

1. Ready to eat or ready to preheat (just to warm before consumption)
2. Once thawed, shrimp must be removed from plastic bag, do not refreeze or store in ambient temperature of home/kitchen refrigerator
3. Suitable for general public. Not recommended for people allergic to shrimp

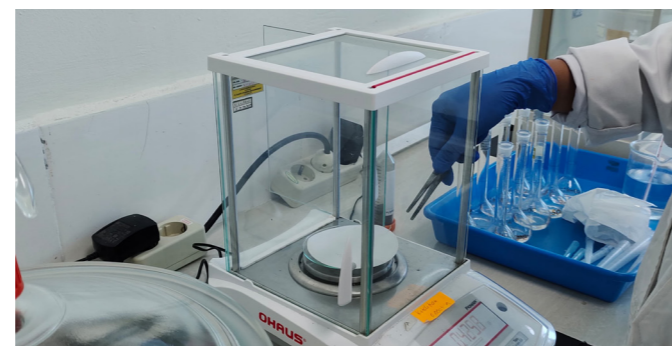
Allergen warning: Shrimp or shrimp product

Produced by: PT PANCA MITRA MULTIPERDANA
Sibubondo, Jawa Timur, 68362, Indonesia

Distributed by: PT Multidaya Teknologi Nusantara (eFishery)
Bandung, Jawa Barat, 40254, Indonesia

SKP NUMBER : 19206/35/SKP/BK/VI/2021
Farm Raised - Product of Indonesia

eFishery Customer Service:



Farming Traceability

Connecting farm traceability from production to harvest

Traceability is essential for ensuring transparency and building customer trust throughout the shrimp supply chain, from the upstream (production and farming) to the downstream (processing and distribution). It enables customers to clearly understand the origins, handling, and processing methods of the product they purchase. By implementing comprehensive traceability measures, eFishery aims to reassure customers and consumers that the product meets stringent quality standards and is sourced responsibly, supporting both sustainability and accountability in the seafood industry.

Objective

- Fully traceable supply chain from end to end with sufficient disclosure.
- Build and develop integrated traceability tools to be universal across all markets.
- Expand traceability from farm-to-fork to feed and hatchery.
- Implement a traceability framework in alignment with global traceability standards.

Shrimp health and water laboratory

Improving farming efficiency throughout the entire process, from the initial stages to harvest

The success of shrimp farming largely depends on achieving optimal survival rates. A key strategy to maintain high survival rates involves the regular implementation of health assessments through comprehensive laboratory testing. These health examinations serve as a proactive measure, not only to prevent disease outbreaks but also to detect potential health issues at an early stage. This commitment to routine lab checks highlights a focus on the overall well-being of the shrimp population, which is essential for the sustainability and long-term prosperity of shrimp farming operations.

Objective

- **Routine Health Assessments:** Implement regular laboratory testing as a proactive and comprehensive strategy to prevent and identify potential shrimp health issues.
- **Holistic Monitoring:** Ensure the wellbeing of shrimp through continuous monitoring and responsive actions based on lab test results, supporting eFishery's Kabayan and Contract Farming to Coop farming models.
- **Lab Expansion Plan:** Operate 23 shrimp health and water quality labs by the end of 2024



ASC (Aquaculture Stewardship Council) Anchor farm certification

Certification Program towards ASC for medium and large scale farmers

The demand for sustainably and responsibly sourced shrimp has been growing consistently, particularly in sustainability-conscious markets such as the European Union. Consumers in these markets prioritize products that are produced with environmental stewardship and adhere to strict sustainability standards.

Objective

- Demonstrate environmental stewardship, enhance product quality, adhere to industry standards, and promote continuous improvement in aquaculture practices.
- Develop an "always-on" audit trail to enhance assurance for buyers and end consumers.

Ensuring responsible environmental stewardship, improving product quality, adhering to industry standards, foster continuous improvement in aquaculture practices, and strengthen assurance to buyers.



ASC (Aquaculture Stewardship Council) AIP Shrimp

Aquaculture improvement programs for certification

The majority of Indonesian farmers are small-to-medium scale, with their farming areas reflecting this proportion. However, their contribution to international trade has been limited due to subpar implementation of aquaculture standards.

Objective

- Improve the quality of shrimp products from smallholder farmers.
- Encourage and support improvements in the small-to-medium-scale aquaculture.
- Meet market expectations for sustainably sourced shrimp.
- Enhance shrimp quality among smallholder farmers, support improved practices in medium-scale aquaculture, and meet the growing demand for sustainable shrimp in the market.



BAP (Best Aquaculture Practices) Anchor farm certification

Certification Program towards BAP for medium and large scale farmers

The demand for sustainably and responsibly sourced shrimp is rising, especially in markets like the US and EU. BAP certification helps farmers meet these demands by ensuring responsible environmental practices, enhancing product quality, adhering to industry standards, and fostering continuous improvement in aquaculture

Objective

- Demonstrate environmental stewardship, enhance product quality, meet industry standards, and promote continuous improvement in aquaculture practices.



Seafood Watch AIP

Aquaculture improvement programs for verification

In addition to certification, assurance programs have played a pivotal role in raising awareness of sustainable purchasing in the market. Verification program offers alternatives and step by step process for farmers to progress towards better practices

Objective

- Facilitate the improvement of practices in key areas to align with Seafood Watch's assurance standard.
- Develop jurisdiction-based and/or landscape-based assurance programs.
- Enhance practices in key areas and meet Seafood Watch's assurance standards through jurisdiction-based and landscape-based assurance programs.

Environmental Performance

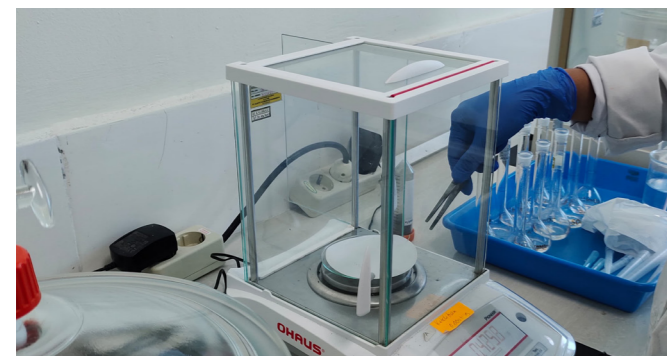


Protein skimmer research

A protein skimmer equipped with UV light reduces the need for chemical sterilization and minimizes microbial resistance

Shrimp production costs are currently high, largely due to reduced productivity and the environment's declining carrying capacity. The deterioration in raw water quality has led to a significant increase in chemical usage, which is not only costly but also environmentally unfriendly. Excessive chemical use contributes to both rising production costs and the development of resistance in microorganisms within the ecosystem.

Our focus is on implementing environmentally friendly and cost-effective aquaculture water treatments to reduce production costs by up to 40%. To achieve this, we are adopting protein skimmers and ultraviolet (UV) light as physical water treatment methods, which have gained recognition in the global aquaculture community.



Heterotrophic probiotics research

Optimisation of medium type and farming method for heterotrophic probiotics

This research compared a wide range of easily available organic substrates for cultivating heterotrophic probiotics. The research demonstrated a potential decrease in farming costs for probiotic use by up to 50% and, in some cases, by as much as 92%.

Objective

- Identified the most optimal medium and cultivation method for heterotrophic probiotics (Bacillus sp. and Lactobacillus sp.).
- Assessed the cost savings from using cultured probiotics compared to pure probiotics.
- Evaluated the performance of cultured probiotics relative to pure probiotics.



Wastewater management research

Combination of bacterial treatment and biofilters in wastewater management enhances shrimp effluent water quality

Untreated shrimp effluent is a major contributor to the degradation of coastal water quality, creating an unsustainable environment for shrimp farming activities. Current wastewater treatment methods have proven ineffective in addressing this issue. Moreover, the quality of effluent water is a critical parameter evaluated for international certification.

Objective

- Promote sustainable farming practices by improving farmers' awareness of wastewater treatment
- Add value for farmers through the biomass produced by biofilters, such as seaweed, seagrapes, fish, and bivalves
- Improve shrimp effluent water quality to support farmers' certification efforts



Heterotrophic and nitrifying probiotic research

Validation on heterotrophic and nitrifying probiotic products

Validation research is conducted to assess the accuracy of commercial product claims and their actual performance.

- Ensures that eFishery recommends only the best products to farmers.
- Addresses the field team's concerns regarding the quality of non-feed products.

Environmental Performance



Nursery ponds/traditional plus SOPs research

Implementation of nursery ponds in shrimp farming

Shrimp farming typically involves two phases: the **single-phase** system, where post-larvae (PL) are reared in grow-out ponds until they reach market size, and the **two-phase system**, where PLs are first reared in a nursery pond before being transferred to grow-out ponds.

Key Benefits of Two-Phase System

- Produces healthier, stronger and more uniform shrimp PLs
- Achieves higher survival rates compared to single-phase grow-out systems
- Facilitates media adaptation of PLs from hatchery to pond conditions
- Prevents early cultivation failure by optimizing the nursery stage.
- Increases the effective use of pond area with high stocking densities. Nursery ponds, which are only 1-6% the size of grow-out ponds, can be more easily controlled.
- Shortens the rearing time required in grow-out ponds.
- Offers potential for a new business model by selling *tokolan* (large PLs) through a Nursery Center.
- Ensuring responsible environmental stewardship, improving product quality, adhering to industry standards, foster continuous improvement in aquaculture practices, and strengthen assurance to buyers.

Best Practices & Business Mode

- Best practices for nursery pond cultivation and direct transfer methods
- Distribution of large PLs *tokolan* to farmers
- Feasibility for pre-commercialization and deployment in specific areas

Key Metrics

- Productivity: 32 ton/ha
- Survival Rate: > 90 % in nursery ponds
- Farming success on non-green areas (location with high underlying farming risk)
- PL distribution with 6-hour transportation window
- Farming cost per PL: IDR 56



Environmental Performance

Introduction Fish Farming in Indonesia



Hal eFisheryans!
Selamat datang di course "Pengenalan Budidaya Ikan di Indonesia!"
Teacher: Anggie Nur Fadillah

Fish farm module

Development of joint sustainable fish farming module with Directorate General of Marine and Fisheries Resources Surveillance (PDSPKP), Ministry of Marine Affairs and Fisheries

eFishery and PDSPKP develop a farm module to support and improve fish farming techniques. Cooperation includes in strengthening fishery products, developing fishery product facilities, and creating farm modules.

The cooperation covers the following areas

- access to capital facilities for fisheries businesses;
- strengthening the quality of fisheries products;
- development of fisheries business corporatization;
- expansion of market access for fisheries products; and
- enhancement of fisheries product logistics.



eFeeder connectivity for tilapia farm

eFeeder connectivity project in Karawang, West Java

eFishery connected 400+ eFeeder units to support the Saline Tilapia farm facility at BLUPPB Karawang (Aquaculture Production Business Service Center, Ministry of Marine Affairs and Fisheries), covering a total of 80 hectares of pond clusters. In 2024, eFishery serves as an offtaker for the harvests, as part of an initiative to accelerate the export of Saline Tilapia products.



Digital village project

Digital Village Project in collaboration with Ministry of Communications and Informatics in Tabanan Regency, Bali Province

The Community Empowerment Program, in the form of a Digital Fisheries Village for fish farmers in Tabanan Regency, Bali, focuses on enhancing technology adoption, improving data literacy, and optimizing farm management through multi stakeholder collaboration. The program aims to provide 20 farmers with eFeeder units to support their farming practices.



Environmental Performance



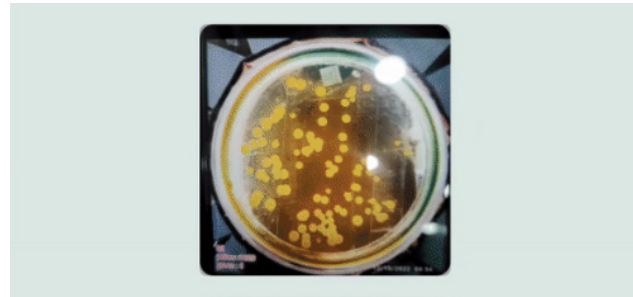
"Through the Improver Programme by ASC, we work with partners in supporting smallholder farmers to improve their farming practices towards environmental sustainability and social responsibility. Under this programme, eFishery will be working on an Aquaculture Improvement Project (AIP) that will deliver training and support to Indonesian farmers to ultimately help them obtain ASC certification. ASC and eFishery will be working closely together to test the role that technology can play in driving efficient verification, with the aim of reducing costs for smallholder farmers in obtaining certification", **Roy van Daatselaar, Global Lead Improver Programme, Aquaculture Stewardship Council (ASC)**



"Collaboration with players across the seafood supply chain is key to successfully building a more sustainable aquaculture industry. Over the past year, we've built a strong partnership with eFishery, thanks to their willingness to take a leadership role in driving improvements for small scale shrimp farmers in Asia. We look forward to continuing our work together to find bold new ways to have real impact in this region." **Cormac O'Sullivan, Senior Fellow, Global Aquaculture Science, Monterey Bay Aquarium.**



Research & Development

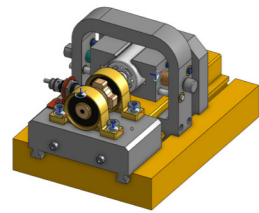


Vibrio Detection Project

This project aims to accelerate the process of calculating the number of Vibrio bacteria in petri dishes, a task commonly performed by the FaaS team and the Shrimp Healthy Lab team. By utilizing image processing technology, the calculation is conducted through images or photos, significantly speeding up the process.

Achievement

The project successfully reduce the time required to calculate the number of Vibrio bacteria from 3 hours to just 3 minutes, using only photos as input.

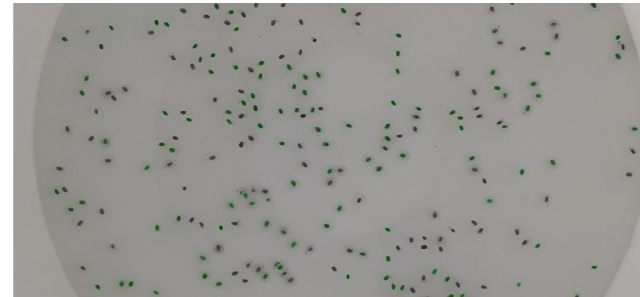


Motor Test Bed Project

The Motor Test Bed project aims to enhance the current manual quality control process, which relies on tachometers, PSUs, and multimeters to measure RPM, voltage, and current, respectively. The project involves developing a mechanical rig equipped with sensors for current, temperature, and RPM, all connected via MQTT for real-time monitoring and data collection. This automation is designed to improve both the speed and accuracy of the quality control process.

Achievement

The project's goal is to **automate and streamline the quality control process** for the thrower motor at the Kawalayaan Factory, significantly improving processing time and automating data collection for better efficiency.



Shrimp fry Quality Control /Counting Project

This project focuses on developing a prototype for a compact shrimp fry counter using image processing technology. Unlike traditional methods where farmers manually count fry with a spoon, this new system enables farmers to count fry accurately and efficiently using only their cell phones.

Achievement

The prototype allows farmers to count the number of fry in a single pack in just **10 seconds**, significantly improving speed and accuracy over manual counting methods.



Shrimp Paddle Monitoring Device (SPMD) Project

SPMD is designed to anticipate unexpected water wheel failures, reduce excessive energy costs, and prevent decreased productivity in shrimp cultivation, which could pose risks to shrimp health.

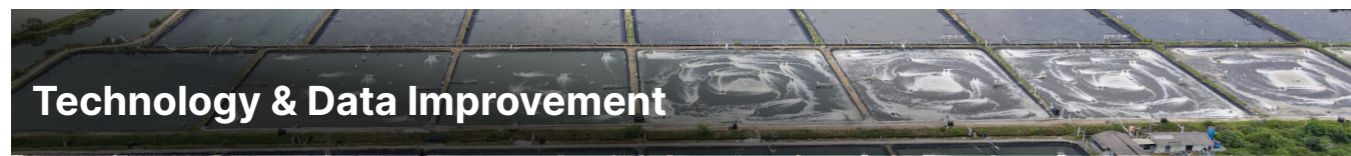
Achievement

- **Informed Decision-Making:** Farmers can take proactive control of their operations by monitoring power consumption, ensuring greater accuracy and control over energy use.
- **Cost Savings:** Optimizing energy usage not only reduces operating costs but also creates opportunities for expansion and business growth.
- **Remote Monitoring:** Simplifies the management and expansion of operations, leading to a new level of efficiency in farm operations.

The system enables comprehensive monitoring of electrical power usage, including parameters such as power, voltage, current, and power factor.



By adopting a business model used by research institutions such as AstraZeneca and the Huawei R&D Lab, R&E seeks research grants to support its activities. This model has also been implemented at eFishery, enabling R&E to participate in numerous research consortia with local universities (ITB, UGM, Universitas Brawijaya), international institutions (UNSW Australia, Monash University, University of Stirling UK), and government bodies (BRIN, KKP). Additionally, R&E collaborates with world-class research institutes like The Scottish Association for Marine Science, one of the oldest oceanographic organizations globally. Together, R&E has submitted over 20 research proposals, primarily focused on sustainability topics such as aquaculture's role in the Blue Economy, Circular Economy, and GEDSI. This approach addresses a gap I have observed at eFishery, as the company has not yet fully focused on these sectors. My hope is that by the time we complete our research in these sustainability areas, eFishery will be well-prepared and not starting from scratch", **Ardimas Andi, Head of AIoT - Research and Engineering**



Technology & Data Improvement



Farm Gate Price Prediction

The **Farm Gate Price Predictor** aims to provide long-term forecasts of farm gate prices across multiple markets, including Indonesia, India, and Ecuador. The forecasts will cover price variations by shrimp size, color, certification type, and certification level.

Achievement

The tool predicts farm gate prices with over **90% confidence**, based on production data, achieving a **mean absolute percentage error (MAPE) of less than or equal to 10%**.



Harvest Prediction

The Business Intelligence Fish team has developed a **visualization platform** that can be integrated into the app, providing key insights for the Business/Product team. This initiative addresses critical business questions related to:

- **Timing:** Identifying the optimal harvest time and forecasting when product demand will peak.
- **Quantity:** Estimating potential harvest volumes and predicting expected consumption or demand.
- **Location:** Pinpointing supply and demand centers for more efficient distribution.
- **Commodity:** Analyzing supply and demand trends for different fish species within the value chain.

Achievement

The tool predicts farm gate prices with over **90% confidence**, based on production data, achieving a **mean absolute percentage error (MAPE) of less than or equal to 10%**.



Motor Test Bed Project

Shrimp farming often faces significant challenges due to diseases. From Q2 to Q4 2023, diseases such as AHPND, WFD, EHP, IMNV, and WSSV were commonly reported across various aquaculture locations, leading to yield declines of up to 40-60% from production targets, with mortality rates ranging from 10-60%. Currently, we are supporting shrimp farmers in several areas, managing a total of 10 ponds.

There are, however, areas for improvement. To provide more precise and sustainable recommendations, we require more comprehensive quantitative and qualitative data. This includes daily and weekly information on water quality, feed, sampling, mortality rates, and daily care throughout the cultivation period. With this data, we can effectively analyze pond conditions, issue early warnings for potential diseases, and offer more accurate treatment recommendations.

Achievement

To address these challenges, we are developing a dashboard that will assist the data technical capability team and shrimp farmers in identifying, addressing, and preventing shrimp diseases. This dashboard will be a reliable source of information and an efficient communication tool between field teams, shrimp farmers, and aquacultureWW professionals. It aims to improve productivity and welfare in the shrimp farming industry.

- **Accuracy of Disease Probability:** 80%
- **Locations:** Aceh, South Lampung, Purworejo, Cilacap, Bali, Tuban, and Banyuwangi.
- **Farmer Participation:** Farmers follow the project through each phase.

Key Performance

Fish & Shrimp Aspect	2021	2022	2023
Total feed used (kg)	38,090,735	146,168,201	305,727,248
Feed brand used	29	33	34
Total ponds connected to technology and ecosystem (unit)	117,508	253,953	369,292
Total production (kg)	35,485,147	114,955,514	242,245,164
Total production value (IDR)	924,835,186,166	3,419,944,243,799	6,361,983,215,599

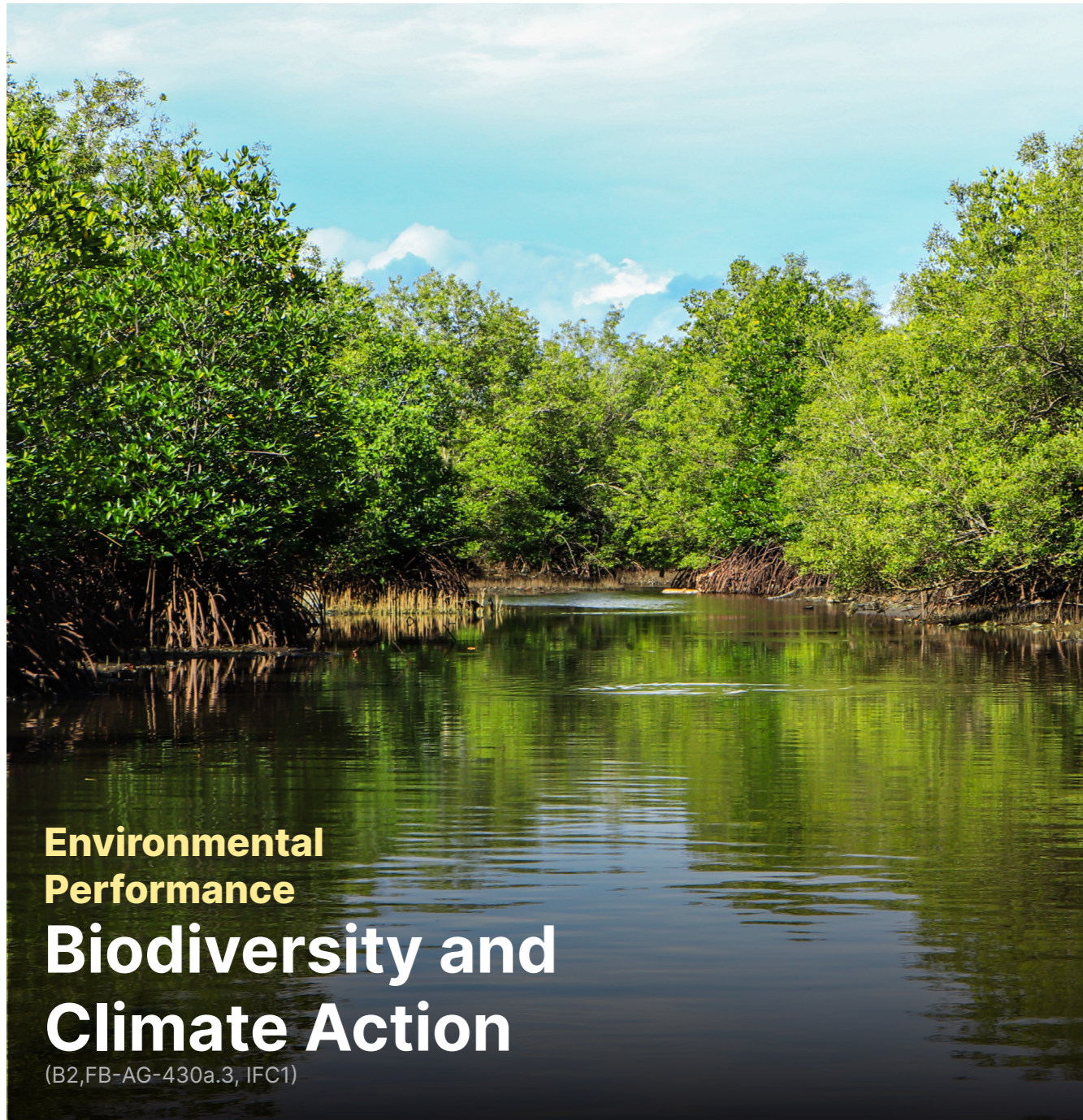


"As an employee in a division focused on execution, the eFishery value that resonates most with me is Speedy Execution. This value ensures that all field-related issues are promptly addressed, allowing us to quickly collaborate and find solutions. As a result, customers experience rapid impact and swift problem resolution."

One of the key initiatives contributing to eFishery's success is the regional expansion undertaken by the Upstream Fish department since 2020. This expansion has increased the number of customers (farmers) joining eFishery, allowing more farmers to benefit from the company's services and initiatives",
Devandra, VP of Business Development Upstream







Environmental Performance
Biodiversity and Climate Action

(B2,FB-AG-430a.3, IFC1)

eFishery is committed to preserving biodiversity and actively contributing to climate change mitigation through technological innovation and sustainable aquaculture practices. We strive to ensure that the aquaculture value chain not only improves production and enhances the welfare of farmers but also contributes to maintaining ecosystems and reducing negative impacts on the natural environment.

By leveraging AI and IoT-based technologies, eFishery is actively involved in reducing the impact of climate change. Our technological innovations focus on minimizing aquaculture feed waste and improving the

feed conversion ratio. We use geospatial technology to optimize the selection of farm sites, reducing the risk of ecological disruption and ensuring that farming activities protect both terrestrial and aquatic habitats.

eFishery prioritizes climate action and biodiversity conservation as part of its commitment to supporting the national government's goal of achieving net zero emissions by 2060. The executive committee, board members, and respective leaders are fully aligned with and actively support this initiative, ensuring a company-wide focus on strengthening climate action and preserving biodiversity.

Biodiversity & Climate Action

Biodiversity & Climate Action	Aquaculture is highly impacted by climate change as it relies on natural factors such as weather, water and soil quality. Our smallholder farmers, in particular, have been significantly impacted. By focusing on biodiversity and climate action, we ensure that we can continue to support farmers in maintaining sustainable production while minimizing negative environmental impacts.
Risk management	eFishery implements risk management strategies to support farmers and operations in climate mitigation, while internally building initiatives to reduce emissions. This approach enables the production of high-value, low-carbon-footprint products.
Commitment & Targets	<ul style="list-style-type: none"> Innovate and implement efficient resources in aquaculture operations Reduce emission across aquaculture value chain through the use of technology, advanced SOPs and best available inputs Manage total production and the adoption of feeder and AIoT products to optimize farming practices Track total feed saved as a result of using feeders, AIoT products, and improved farming SOPs Monitor and manage total GHG emissions generated by operations Explore innovations and technology for renewable energy use in aquaculture Contribute to SDG 13 Climate Action and support Indonesia's goal to achieving Net Zero Emission by 2060
Policy	<p>Our commitment is supported by the following policies and internal plans:</p> <ul style="list-style-type: none"> Embedding Biodiversity & Climate Action into the Code of Conduct and Supplier Code of Conduct Impact Strategy & Impact Action Plan to guide sustainability initiatives Environment Social Management System to ensure responsible operations Company commitment to emission reduction as part of climate action efforts Company commitment to biodiversity protection and no net loss to preserve ecosystems Company commitment to water management
Evaluation	The Executive Committee, along with the Impact Committee and ESG Committee, leads eFishery's climate action initiatives, driving both existing and potential projects forward. During business expansion and partnerships, eFishery conducts thorough due diligence based on ESG compliance, ensuring that partners prioritize the protection and management of natural resources and climate action. Additionally, eFishery continues to measure and manage its GHG emissions across Scope 1, 2, and 3.



"A company that disregards the environment and its stakeholders is not built to endure. eFishery not only prioritizes the environment and those it works with but does so while achieving financial success. This highlights the evolving view of market dynamics—extending Adam Smith's 1800s metaphor of the "invisible hand of the market" to include what we might now call the "invisible heart of the market." eFishery embodies this principle, serving as a prime example of the kind of impactful company that responsible investors, like responsAbility, are proud to support", **Chris Teoh, responsAbility**



Biodiversity Commitment

(F9, F10, IFC3, IFC6, 303-1, 304-1-3)

Our commitment to biodiversity protection principles is demonstrated by efforts to enhance practices throughout the fish and shrimp value chains and support our Journey to Net Zero. This includes driving resource efficiency through technological innovation, reducing emissions, and achieving a Net Positive Impact through sustainable practices. Our biodiversity goals set clear pathways and targets to guide our progress in these critical areas.

Tech-based Sustainable Production

We are committed to advancing sustainable production in our fish and shrimp businesses by leveraging technology and improving standard operating procedures (SOPs). Our goal is to increase 1 million ponds connected to eFishery technology & ecosystem by 2030.

Fish and shrimp are produced responsibly, adhering to industry standards for sustainable and responsible aquaculture. Our participation in aquaculture improvement programs, such as ASC, Seafood Watch, and BAP, emphasize biodiversity protection and minimize negative impacts on surrounding ecosystems. This includes addressing deforestation and improving feed conversion efficiency.

We aim to increase up to 1 million kg of certified products by 2030.

Climate Adaptation and Resilience

We aim to empower farmers to adopt strategies for climate change mitigation, adaptation, and resilience, ensuring sustained production and improving their professionalism.

- Our targets include:
- **Reducing feed waste** by maintaining a stable and efficient Feed Conversion Ratio (FCR).
 - **Increasing production efficiency**
 - **Achieving a stable and efficient FCR** across fish and shrimp farming operations

Regenerative Aquaculture

We are committed to advancing regenerative aquaculture practices by focusing on resource efficiency, biodiversity protection, and robust farm management. Our goal is to achieve 100% traceability for all fish and shrimp sold and traded by 2025.

Since 2021, we have been tracking the total feed saved on a quarterly basis to monitor progress in reducing feed waste through the use of automated feeders. In collaboration with farmers, we emphasize the importance of using high-quality feed and promote the adoption of feeds that minimize the use of fish meal and fish oil, favoring more innovative raw materials.

Our target is to reduce feed waste by maintaining a stable and efficient Feed Conversion Ratio (FCR), also achieving 1 billion kg of feed saved by 2040.

Supply Chain Traceability

Our system interoperability and interconnectedness empower farmers to track their farming performance, predict harvests, and optimize resource efficiency. Through integrated traceability, we monitor biodiversity risks in critical areas and collaborate with farmers to identify challenges and implement protective measures.

Our target is to achieve 100% traceability for all fish and shrimp sold and traded by 2025.

Responsible and Inclusive Sourcing

We are committed to implementing efficient, transparent, and responsible sourcing mechanisms that empower smallholder farmers, transitioning them from previously disconnected systems to fully integrated networks. Our sourcing practices prioritize biodiversity conservation by reducing and ultimately avoiding sourcing from areas of critical biodiversity and regions at high risk of deforestation.

- Our targets include:
- Achieving 100% traceability for all fish and shrimp sold and traded by 2025.
 - Increasing 100,000 farmers and farmers group connected by 2030
 - Achieve 100,000 farmers receive financing by 2040
 - Achieve 100 million USD funds delivered by 2030

Journey to Net Zero

Our Journey to Net Zero directly supports our biodiversity commitment by reducing greenhouse gas emissions, thereby mitigating climate change impacts on ecosystems and habitats. Achieving Net Zero will ensure that our operations contribute to biodiversity protection through a lower carbon footprint and enhanced environmental stewardship.

Our target is achieving Net Zero by 2060.

Ecosystem Reforestation & Protection

Ecosystem protection and reforestation are crucial to our biodiversity commitment, as they restore and preserve natural habitats. These efforts help maintain ecological balance and resilience, ensuring that biodiversity is safeguarded and can thrive in restored and protected environments.

Our target is to safeguard and reforest 100,000 hectares of mangroves by 2040.

Environmental Social Management System (ESMS)

Incorporating an ESMS into our biodiversity commitment means systematically integrating environmental and social considerations into decision-making processes. This approach ensures that biodiversity impacts are thoroughly assessed, monitored, and managed across our operations.

Our target is to achieve 100% implementation of the ESMS company-wide at eFishery and extend it to farming operations and supply chain partners.

Resource Efficiency

We improve resource efficiency in aquaculture by minimizing environmental impacts through the reduction of critical resources consumption, such as feed and water. This approach supports biodiversity preservation by limiting habitat disruption and pollution, aligning aquaculture practices with broader conservation goals and promoting overall ecosystem health

- Our targets are:
- Achieving a reduction in feed waste by maintaining a stable and efficient Feed Conversion Ratio (FCR).
 - Ensuring a stable and efficient FCR in both fish and shrimp farming operations.



"eFishery uses cutting-edge technology to minimize feed wastage, significantly improving farming efficiency while protecting the environment. Their integrated platform is trusted by farmers, providing them with the tools to procure quality feed and sell their fresh produce at fair prices, creating a sustainable and thriving aquaculture network", **Wei Xiang Lim, SoftBank**





Biodiversity Mitigation Plan & Protection Against Natural Ecosystem Conversion

(IFC6, IFC7, 304-1)

The Biodiversity Mitigation Plan outlines our commitment to protecting and enhancing biodiversity through responsible aquaculture practices. This plan focuses on addressing potential environmental impacts, integrating sustainable practices, and supporting conservation efforts to ensure that our operations positively contribute to the health of the ecosystem. We are dedicated to protecting natural ecosystems by contributing to reducing deforestation risk in areas surrounding our shrimp farms.

Objectives	Key Strategies
<ul style="list-style-type: none"> Minimize environmental impact by reducing the ecological footprint of aquaculture operations. Enhance biodiversity through the conservation and restoration of local ecosystems and habitats. Promote sustainable practices by integrating best practices that align with biodiversity goals and industry standards. 	<ol style="list-style-type: none"> Sustainable Aquaculture Practices <ul style="list-style-type: none"> Biodiversity Impact Assessments: Conduct regular assessments to assess and mitigate the impact of aquaculture operations on local wildlife and habitats. Improved Feed Conversion: Optimize feed conversion ratios to reduce waste and lessen the strain on natural resources. Resource Efficiency <ul style="list-style-type: none"> Feed Savings: Utilize eFeeder technology to lower feed usage and improve efficiency. Water Management: Implement efficient water use practices and recycling systems to reduce water consumption and minimize pollution. Habitat Protection and Restoration <ul style="list-style-type: none"> Protect Critical Habitats: Avoid operating in or near sensitive ecosystems such as mangroves, coral reefs, and wetlands, and commit to reducing deforestation risks across business operations. Restoration Projects: Engage in or support reforestation and habitat restoration initiatives Monitoring and Reporting <ul style="list-style-type: none"> Regular Monitoring: Establish a system to track the impact of operations on biodiversity and adjust practices accordingly. Transparent Reporting: Publish annual reports detailing biodiversity mitigation efforts and progress towards conservation goals.
Stakeholder Engagement <ul style="list-style-type: none"> Community Involvement: Engage with local communities and stakeholders to identify concerns and collaborate on biodiversity conservation initiatives. Partnerships: Partner with environmental organizations and experts to support reforestation and conservation projects, as well as to share best practices. 	

Biodiversity Mitigation Plan Roadmap

eFishery has actively implemented biodiversity-focused practices across various strategies, including biodiversity assessments, policies, plans, and Standard Operating Procedures (SOPs). Looking ahead, we are committed to enhancing our biodiversity analysis and conservation efforts. For instance, improve biodiversity assessment using insights from the Integrated Biodiversity Assessment Tool (IBAT) to better understand our environmental impact and align more closely with biodiversity conservation goals.

Aspect	2013 - 2021 Technology Development	2021 - 2022 Preparation	2023 - 2028	2029 - 2040
Strategies	<ul style="list-style-type: none"> Sustainable aquaculture practices Resource efficiency Habitat protection 	<ul style="list-style-type: none"> Sustainable aquaculture practices Resource efficiency Habitat protection 	<ul style="list-style-type: none"> Sustainable aquaculture practices Resource efficiency Habitat protection and reforestation Monitoring and reporting 	<ul style="list-style-type: none"> Sustainable aquaculture practices Resource efficiency Habitat protection and reforestation Monitoring and reporting
Biodiversity Assessment	<ul style="list-style-type: none"> Onsite environmental impact analysis Onsite critical habitat analysis IUCN Red List Clark Labs aquaculture.earth Other GIS supports in critical habitat and deforestation risks mapping 	<ul style="list-style-type: none"> Onsite environmental impact analysis Onsite critical habitat analysis IUCN Red List Clark Labs aquaculture.earth Other GIS supports in critical habitat and deforestation risks mapping 	<ul style="list-style-type: none"> Onsite environmental impact analysis Onsite critical habitat analysis Biodiversity Environmental Impact Assessment (BEIA) IUCN Red List eFishery AquaCapture Clark Labs aquaculture.earth Global Mangrove Watch Climate Smart Shrimp CI Other GIS supports in critical habitat and deforestation risks mapping 	<ul style="list-style-type: none"> Onsite environmental impact analysis Onsite critical habitat analysis Biodiversity Environmental Impact Assessment (BEIA) IUCN Red List eFishery AquaCapture Clark Labs aquaculture.earth Global Mangrove Watch Climate Smart Shrimp CI Other GIS supports in critical habitat and deforestation risks mapping
Policy, Plan, SOPs	<ul style="list-style-type: none"> Code of Conduct Sustainable farming SOPs Supply chain traceability 	<ul style="list-style-type: none"> Code of Conduct Sustainable farming SOPs Supply chain traceability 	<ul style="list-style-type: none"> Embedded Biodiversity & Climate Action to Code of Conduct and Supplier Code of Conduct Impact Strategy & Impact Action Plan Environment Social Management System Company commitment on Emission reduction Company commitment on Biodiversity protection Company commitment on water management 	<ul style="list-style-type: none"> Embedded Biodiversity & Climate Action to Code of Conduct and Supplier Code of Conduct Impact Strategy & Impact Action Plan Environment Social Management System Company commitment on Emission reduction Company commitment on Biodiversity protection Company commitment on water management



Climate Risk Mitigation

(F12, FB-AG-110a.2, 201-2)

Our journey in climate risk mitigation follows the Biodiversity & Climate Action Strategy Roadmap, which is built around four key components: risk management, governance, strategy and metrics and targets, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). From 2013 to 2022, we have focused on developing technology and an ecosystem that revolutionizes the aquaculture industry. This combination of cutting-edge technology and a robust ecosystem drives greater efficiency and significantly reduces carbon footprint.

Key steps in our climate risk mitigation efforts include:

- Conducting an initial assessment based on TCFD recommendations.
- Aligning initiatives and programs with governance, strategy, risk management, metrics, and targets.
- Analyzing the impacts of climate mitigation and adaptation on transition and physical risks.
- Developing and implementing the Biodiversity & Climate Action Strategy Roadmap.

The use of scenario analysis in disclosing climate-related risks and opportunities in our operations involves a comprehensive process of internal assessment and benchmarking. This ensures a thorough evaluation across diverse business operations and analyzes key financial impacts.

1. Governance

The Governance Committee, which includes the ESG Committee and Executive Committee, defines the roles, responsibilities, and key performance indicators (KPIs) for departments affected by climate change risks. These departments include the Fish Business Value Chain, Shrimp Business Value Chain, Supply Chain Management, Governance, Risk and Compliance, and Sustainability and Development. The initiative is led by Environment Leader Chrisna Aditya Wardani, managed by the Sustainability and Development Unit, with advisory support from the Impact Committee.

2. Strategy

Both the actual and potential risks of climate change in business operations and financial management are analyzed for managerial and physical implications. [The Biodiversity & Climate Action Strategy Roadmap](#) outlines our journey and risk mitigation initiatives, contributing to the transformation of the aquaculture industry and supporting our commitment to achieving net-zero emissions.

3. Risk management on financial impacts of climate change

Initial risk assessments have identified climate change risks associated with eFishery's operations and farming practices. In the next phase, eFishery will analyze the financial risks associated with climate change, focusing on which business areas and lines are most affected.

For transition risks, we highlight potential business lines and focus areas, examining both how climate change impacts these areas and how they, in turn, influence climate change. This analysis considers market demand, technological transitions, and regulatory changes. We then assess the financial impacts, identify the overall risks, and incorporate these findings into our internal investment analysis to project future revenue growth.

4. Metrics and target

As financial risks are identified and data is collected through climate scenario analysis, eFishery updates its annual transition risk assessment related to climate change. This includes evaluating initiatives for adaptation and mitigation.

Overall, our biodiversity and climate action strategy evolves to enhance and expand our sustainability practices. This positions eFishery as a leading aquaculture company committed to climate action.

Roadmap on Biodiversity & Climate Action Strategy

Aspect	2013 - 2021 Technology Development	2021 - 2022 Preparation	2023 - 2028	2029 - 2040
Governance	Technology advancement and governance in manufacturing and farmers outreach	Conduct an assessment of internal and external risks, challenges, team capacity and committee development	Develop a governance structure that integrates the Impact Committee, Executive Committee, ESG Committee, and eFishery's department leaders. This structure will align company goals with sustainability objectives and ESG KPIs for effective management	Align and collaborate on initiatives, best practices and strategies for climate mitigation with stakeholders
Strategy	<ul style="list-style-type: none"> Calculation and improvement of farming Feed Conversion Ratio (FCR), Survival Rate (SR), and yield Calculation and management of total feed saved Development and continuous improvement of eFeeder and AIoT solutions 	<ul style="list-style-type: none"> Identify climate strategies related to aquaculture for farming and operations Identify relevant strategies across SDGs and regulatory requirements for national, Singapore, EU, and US markets Mainstream awareness and communication to internal management 	<ul style="list-style-type: none"> Begin calculating GHG emissions across Scope 1, 2, and 3 Start calculating the emissions from fish and shrimp production Commit to the Journey to Net Zero 2060 with Mangrove Positive Aquaculture carbon offset potentials Develop key initiatives to increase resource efficiency in aquaculture and reduce emissions Innovate key initiatives to produce low carbon footprint fish and shrimp products Establish an internal control system to monitor and track progress and outcomes of these initiatives Develop Aquaculture Improvement Programs aimed at certification and verification Develop key initiatives to leverage the potential of blue carbon credits 	<ul style="list-style-type: none"> Best practices for resource efficiency and reducing internal Scope 1 and 2 emissions Best practices for developing low carbon products Best practices for leveraging blue carbon credit potential

Roadmap on Biodiversity & Climate Action Strategy

Aspect	2013 - 2021 Technology Development	2021 - 2022 Preparation	2023 - 2028	2029 - 2040
Risk Managemet	Conduct an internal risk and needs assessment related to climate change	A risk assessment conducted by internal and external partners to identify key challenges, opportunities and impacts on both operational and financial aspects	<ul style="list-style-type: none"> Improve Environmental Social Management System (ESMS) based on gap analysis and improvement plan aligned with IFC Performance Standards, World Bank Environment, Health and Safety Guidelines and other relevant standards Conduct biodiversity mitigation plans using the Integrated Biodiversity Assessment Tool (IBAT) Embed environmental, biodiversity, and climate action principles into the company's Code of Conduct and Supplier Code of Conduct 	<ul style="list-style-type: none"> Develop and implement a framework of biodiversity and climate action Create product design and farming standards for low carbon footprint production
Metrics & Target	<ul style="list-style-type: none"> eFeeder and AIoT products development Increase in farmer adoption and expansion of total production areas using eFeeder Increase in feed savings and improvement in FCR efficiency 	<ul style="list-style-type: none"> Categorization and identification of key areas in the company's carbon footprint calculation Analysis of the financial impact on biodiversity and how financing contributes to both positive and negative outcomes Analysis of environmental and biodiversity-related risks, including reputational, physical and transitional risks 	<ul style="list-style-type: none"> Internal records of GHG emissions for Scope 1, 2 and 3 Internal records of GHG emissions related to fish and shrimp products Number of initiatives developed internally and in collaboration with external partners to reduce emissions Roadmap for the Journey Net Zero 	<ul style="list-style-type: none"> Premium, high-value product with a nature-positive unique value proposition, featuring a low carbon footprint, regenerative aquaculture practices, and acting as a driver for Nature-Based Solutions Implementation of Net Zero roadmap



Climate scenario analysis

(F12, FB-AG-110a.2, 201-2)

The TCFD (Task Force on Climate-related Financial Disclosures) climate scenario analysis is a framework designed to help companies assess and disclose how different climate scenarios may impact their financial performance and operations. By examining various climate scenarios, companies can evaluate the potential risks and opportunities posed by different levels of global warming and associated policy measures. eFishery values this analysis as a tool to better prepare for a range of future conditions and integrate climate considerations into decision-making processes. While eFishery has initiated this analysis internally, it has not yet been communicated to the TCFD. An update on this will be provided in the next reporting phase.

Risk analysis and mapping are conducted across eFishery's key operational areas, business lines, and geographic regions, with a focus on critical aspects such as supply chain, production, regulatory compliance, and market demand. This analysis is conducted within the broader context of the aquaculture sector's relationship to climate change.

Focus Area	Climate scenarios	Internal & External Factor
<ul style="list-style-type: none"> Fish and shrimp farming Overall farming and harvest production Supply chain Market demand Regulatory compliance 	<ul style="list-style-type: none"> 2°C Scenario: A scenario where global warming is limited to 2°C above pre-industrial levels, aligned with the Paris Agreement 4°C Scenario: A scenario where global warming reaches 4°C, reflecting higher levels of temperature increase and associated impacts Business-as-Usual Scenario: A scenario with no significant changes in climate policy or technological advancements 	<ul style="list-style-type: none"> Technological Developments: Advances in aquaculture technology, renewable energy, and resource efficiency Market Dynamics: Changes in consumer preferences, supply chain disruptions, and new market opportunities Policy Changes: Carbon pricing, emissions reduction targets, and environmental regulations

Assessing Impacts

- Operational Impact:** Potential changes in temperature, weather patterns, and sea levels that could affect aquaculture practices, fish health, and production efficiency.
- Financial Impact:** Climate scenarios may impact costs, revenues, and profitability including increased costs for energy and resources, shifts in market demand, and the financial implications of regulatory compliance.
- Regulatory Impact:** Potential changes in environmental regulations and policies that could influence operations and costs.
- Supply Chain Impact:** Climate scenarios may disrupt supply chains or affect the availability and cost of key inputs.

1. Physical Risk

Climate change poses significant threats, including rising and fluctuating temperatures, extreme weather events, and related challenges that could potentially damage farming infrastructure such as production ponds and other farming facilities. Flooding, rising sea levels and declining water and soil quality may exacerbate these risks. Fluctuating temperatures and weather patterns could lead to reduced farming production, resulting in lower demand for eFishery products, lower yields, reduced survival rates, and decreased farming efficiency. Mitigation efforts encompass best practices for climate adaptation and advanced technology to enhance early warning systems and predictions, leveraging optimized feed strategies. In increasingly challenging climate conditions, AIoT technologies integrated with farming assistance can provide continuous support to farmers. If necessary, new technologies can be developed.

2. Transition Risk

Initial assessment and stress testing indicate that aquaculture farming can remain relevant and competitive by adapting to changes in regulations, market demand, and technological advancements. By adopting technologies that address fluctuations in water quality and farming conditions, and by implementing standard operating procedures (SOPs) that incorporate climate resilient practices, aquaculture farming can effectively manage risks and maintain competitiveness.

3. Reputational Risk

Reputational risks could manifest in several ways including sustainability practices, regulatory compliance, supply chain impacts, public perception and media coverage, and stakeholder expectations on the company's brand reputation. For example, if eFishery is perceived as not adequately adopting climate-resilient practices, it could face criticism from customers and external stakeholders.

Based on initial assessments, eFishery can mitigate this risk by continuously improving compliance with evolving climate regulations and standards, both internally and across the supply chain. Aligning with the expectations of investors, customers, and communities regarding climate action and sustainability efforts is also crucial. Effectively managing this risk requires transparent communication about the company's initiatives to address climate change.



Climate Scenario Analysis Opportunities

In the context of eFishery's climate scenario analysis, opportunities refer to potential advantages or benefits that could emerge from addressing climate-related challenges and integrating sustainability into company's operations.

Innovation and Technology Leadership

Develop and implement new technologies aimed at continuously reducing feed usage, improving Feed Conversion Ratio (FCR), lowering emissions, improving water quality management, reducing energy consumption and increasing overall efficiency in aquaculture.

Operational Efficiency

Adopting climate-friendly practices and technologies can improve operational efficiency, reduce waste, and lower costs, ultimately contributing to better overall performance and profitability.

Market Competitiveness

By leading in sustainable aquaculture practices and adopting climate-resilient technologies, eFishery can strengthen its market position and attract environmentally conscious consumers and investors.

Market Access

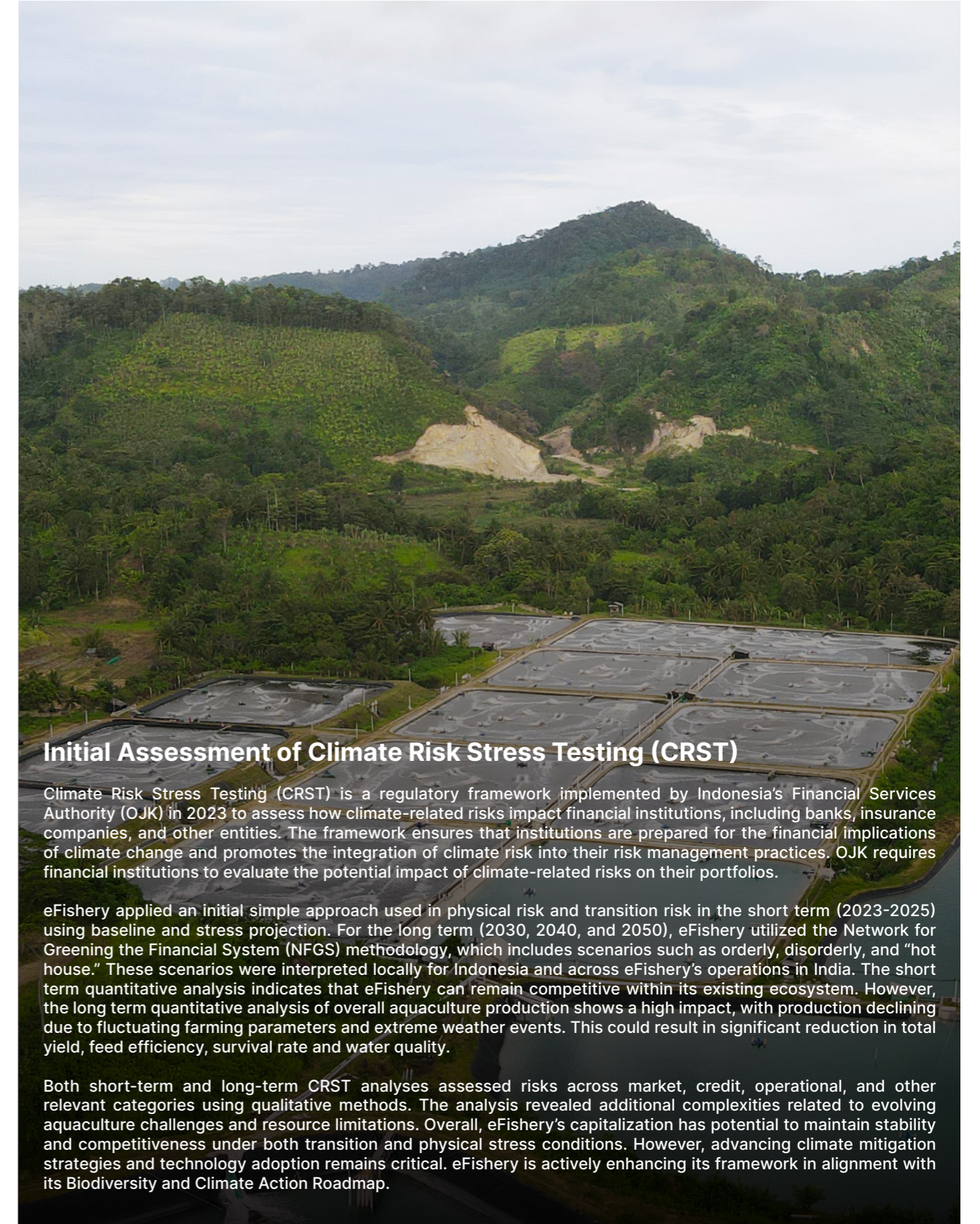
Our system interoperability and As global demand for sustainably produced seafood increases, eFishery can capitalize on new market opportunities by offering products that meet higher environmental standards and appeal to this growing consumer segment.

Customer Loyalty

Demonstrating a commitment to environmental sustainability can enhance brand reputation and increase customer loyalty, as consumers and businesses increasingly prefer to support companies with strong environmental credentials.

Supply Chain Resilience

By investing in climate-resilient supply chains and practices, eFishery can mitigate risks related to supply disruptions, ensuring more stable and reliable sourcing of materials and inputs.



Initial Assessment of Climate Risk Stress Testing (CRST)

Climate Risk Stress Testing (CRST) is a regulatory framework implemented by Indonesia's Financial Services Authority (OJK) in 2023 to assess how climate-related risks impact financial institutions, including banks, insurance companies, and other entities. The framework ensures that institutions are prepared for the financial implications of climate change and promotes the integration of climate risk into their risk management practices. OJK requires financial institutions to evaluate the potential impact of climate-related risks on their portfolios.

eFishery applied an initial simple approach used in physical risk and transition risk in the short term (2023-2025) using baseline and stress projection. For the long term (2030, 2040, and 2050), eFishery utilized the Network for Greening the Financial System (NFGS) methodology, which includes scenarios such as orderly, disorderly, and "hot house." These scenarios were interpreted locally for Indonesia and across eFishery's operations in India. The short term quantitative analysis indicates that eFishery can remain competitive within its existing ecosystem. However, the long term quantitative analysis of overall aquaculture production shows a high impact, with production declining due to fluctuating farming parameters and extreme weather events. This could result in significant reduction in total yield, feed efficiency, survival rate and water quality.

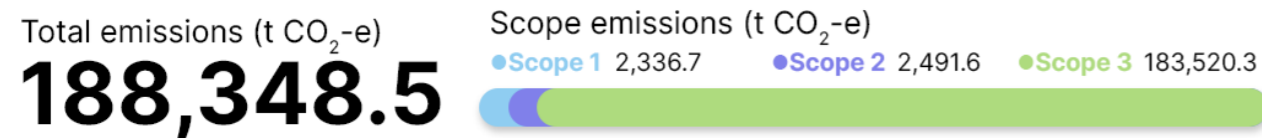
Both short-term and long-term CRST analyses assessed risks across market, credit, operational, and other relevant categories using qualitative methods. The analysis revealed additional complexities related to evolving aquaculture challenges and resource limitations. Overall, eFishery's capitalization has potential to maintain stability and competitiveness under both transition and physical stress conditions. However, advancing climate mitigation strategies and technology adoption remains critical. eFishery is actively enhancing its framework in alignment with its Biodiversity and Climate Action Roadmap.



eFishery is dedicated to precise and transparent climate reporting. We adhere to GHG Protocol standards and frameworks to accurately measure our Scope 1, 2, and 3 greenhouse gas emissions. Recognizing the complexity of our value chain and business models, we leverage Unravel Carbon, an AI-driven decarbonization tool, to support our efforts in reducing emissions effectively. This platform integrates data on direct emissions from owned operations (Scope 1), indirect emissions from purchased energy (Scope 2), and all other indirect emissions across the supply chain (Scope 3). A comprehensive analysis enables eFishery to effectively track and manage its carbon footprint.

The total carbon footprint is calculated using a spend-based approach, taking into account the monetary value of goods and services purchased. This method involves multiplying the company expenditures by the emissions intensity associated with those goods and services.

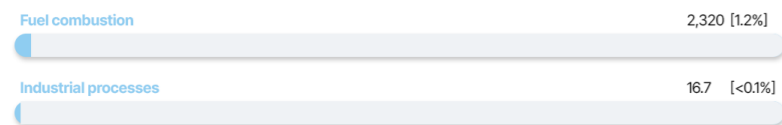
To improve the accuracy and detail of our assessment, we plan to adopt a hybrid calculation method in the following year. This approach combines the precision of activity-based data for key emission sources, supplemented by spend-based methods to estimate emissions for other categories.



Division per Scope

Scope 1	2,336 tCO ₂ e	1.2%
Scope 2	2,491 tCO ₂ e	1.3%
Scope 3	183,520 tCO ₂ e	97.4%
Total	188,348 tCO₂e	

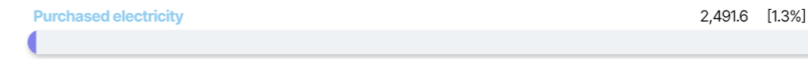
Scope 1 emissions by category (t CO₂-e, % of all emissions)



Division per Emission Category | Scope 1

Fuel Combustion	2,320 tCO ₂ e	1.2%
Industrial Processes	16.7 (tCO ₂ e)	<0.1%
Total	2,336.7 tCO₂e	1.2%

Scope 2 emissions by category (t CO₂-e, % of all emissions)



Division per Emission Category | Scope 2

Purchased Electricity	2,491.6 tCO ₂ e	1.3%
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Division per Emission Category | Scope 3

Purchased Goods & Services	178,942.6 tCO ₂ e	95%
Business Travel	3,075.8 tCO ₂ e	1.6%
Employee Commuting	707.8 tCO ₂ e	0.4%
Upstream & Downstream Transportation	472.4 tCO ₂ e	0.3%
Fuel & Energy Related	254.5 tCO ₂ e	0.1%
Waste	45.4 tCO ₂ e	<0.1%
End of life treatment of sold products	21.8 tCO ₂ e	<0.1%
Total	183,520.3 tCO₂e	97.4% of all emissions





Blue Economy

(201-1)

eFishery plays an important role in supporting Indonesia's Blue Economy through technological innovations that help farmers increase production capacity while reducing the environmental impact of aquaculture. Despite the challenges posed by the pandemic, eFishery expanded its network to more than 192 eFishery points across various cities in Indonesia, demonstrating its commitment to promoting both the welfare and sustainability of the aquaculture industry.

Recognizing that education is key to improving the sustainability and well-being of coastal communities where basic education remains the norm, eFishery providing educational support and facilities to farmers. By adopting Blue Economy principles, eFishery boosts farmers' economic welfare while helping to maintain healthy aquaculture ecosystems and ensuring sustainable fishery resources for future generations. The principles and contributions to the Blue Economy are summarized below based on the Indonesian Blue Economy Index.

Pillar	Metrics	eFishery Metrics
Economic Pillar - Fishery & Aquaculture	<ol style="list-style-type: none"> Contribution of fishery sector to GDP (%) Captured fish (volume, tons) Productions in fishery sector (volume, tons) Marine aquaculture production (volume, tons) Pond cultivation fishery production (volume, tons) Salt production (volume, tons) Export of fishery products (volume, tons) Share of export of fishery products in total exports (%) Captured fish and aquaculture exports (volume, tons) 	<ol style="list-style-type: none"> 1.91% to aquaculture sector N/A N/A N/A 242,245,164 kg in 2023 N/A 62,000 kg in 2023 N/A 62,000 kg in 2023
Environment Pillar	Rehabilitation of mangrove forest. Good quality of mangrove forest (in %)	1 Ha in 2023, commitment to safeguard and reforest 100,000 Ha by 2040
Social Pillar - Employment & Welfare	number of farmers average monthly income fishermen exchange rate	44,000+ farmers in 2023
Social Pillar - Quality of Health	Fish consumption Protein consumption	1,201 Community members supported access to better food security and eliminated hunger risks

Initiatives & Investment Pipeline



Journey to Net Zero

Our journey to net zero involves a comprehensive strategy to reduce greenhouse gas emissions across all operations, focusing on energy efficiency and sustainable practices. We will systematically measure and minimize our carbon footprint by investing in technologies and processes that drive emissions reductions. By 2050, we aim to achieve net zero emissions, demonstrating our commitment to environmental stewardship and long-term sustainability.

Mangrove Positive Aquaculture

Our ambition for 2024-2040 includes the reforestation and protection of **100,000 hectares of mangrove forests**. This initiative is revolutionizing shrimp farming through our biodiversity and climate action framework, promoting sustainable, premium shrimp production and generating carbon sequestration potential and blue carbon credit. Our **Mangrove Positive Aquaculture** model transforms shrimp farming from a major cause of deforestation into a driver of reforestation. By integrating mangrove and shrimp farming, we are safeguarding ecosystems across eFishery farms—whether small-scale, semi-intensive, or intensive—while reducing our carbon footprint and aiming for carbon positivity.

We began this journey with the reforestation of **1 Ha or 1,000 mangrove trees in East Lombok** in partnership with **Bale Mangrove**, a community group dedicated to mangrove protection and ecotourism. In our next phase, we will integrate traditional farming practices with established standard operating procedures to enhance farmers' productivity. This approach will also incorporate the concept of combining traditional farms with mangrove ecosystems, promoting benefits for mangrove protection, water quality and increased production Mangrove Positive Aquaculture.

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Environmental Performance



Sustainable Feed Initiative

The eFishery brand’s alternative shrimp feed initiative is designed to develop sustainable feed options that reduce reliance on traditional fishmeal and minimize environmental impact. By leveraging innovative ingredients and formulations, this initiative aims to enhance shrimp nutrition while supporting more responsible aquaculture practices

eFishery Brand Alternative Shrimp Feed

Feed represents the majority of farming costs and contributes significantly to the environmental footprint of shrimp farming. A breakthrough solution is necessary to help farmers improve profitability while reducing environmental impact.

Objective

- Reduce feed costs for farmers
- Enhance farm cultivation performance through improved feed formulations
- Improve feed efficiency, leading to better resource use
- Strengthen shrimp immunity, promoting healthier growth
- Lower organic footprint, reducing the environmental impact of shrimp farming
- Minimize feed-induced pollutants and waste, leading to lighter water treatment requirements



Circular Waste Initiative

The Circular Waste Initiative focuses on converting shrimp byproducts into valuable chitin and chitosan, maximizing the full value of the animal while minimizing waste. This approach enhances resource efficiency and promotes sustainability by transforming what would otherwise be discarded into useful, high-value products

Shrimp Byproduct for Chitin/Chitosan Production

Shrimp are primarily used as a protein source for human consumption, with other body parts often underutilized. By using shrimp byproducts for chitosan production, eFishery addresses this challenge while mitigating environmental impact. Shrimp byproducts can be applied in various fields, including consumer products and pharmaceuticals.

Objective

- Optimize full-animal value creation by utilizing shrimp byproducts
- Provide shrimp-based-value-added products to customers
- Reduce environmental waste and minimize waste sent to landfills
- Generate additional positive revenue for overall eFishery operation and support to farmers

Environmental Performance



Key Performance

Biodiversity & Climate Action Aspect	2021	2022	2023
Feed saved (kg) from use of eFishery technology and ecosystem	129,939,154	190,966,539	222,546,289
GHG emissions scope 1 and 2 reduction (tCO ₂ e/year)v	N/A, calculation is not started	N/A, calculation is not started	188,348 tCO ₂ e
Mangroves protected and reforested (Ha)	0	0	1 Ha 1,000 trees planted with ongoing monitoring



| Social Performance

Social Performance



eFishery is committed to improving welfare of both the farming community and the wider population through technology-based innovation and the development of high-quality aquaculture products. The company's sustainability strategy is built to empower local communities, increase access to nutritious food, and create sustainable economic opportunities in Indonesia.

We support small-scale farmers across various regions in Indonesia, aiming to create a foundation for aquaculture-based food production. We address the resource gaps that smallholder farmers face by offering access to financing, market opportunities, quality seeds and feed, and data optimization for cultivation. To help these farmers thrive, eFishery has built an aquaculture ecosystem that ensures access to suitable financing systems and promotes financial inclusion through partnerships with financial institutions, expanded market access, and technology-driven aquaculture. To support the growth of smallholder farmers, our ecosystem offers access to financing systems through partnerships with financial institutions, fostering financial inclusion and providing the necessary capital for aquaculture cultivation.

Social Performance

Thriving Communities

Objective	Farmers are at the heart of our operations, and we grow alongside them to foster prosperity and growth. Most of our farmers are smallholders who rely on our support. When farmers and communities thrive, it reflects our commitment to consistently leveraging their potential. Our goal is to enhance the livelihoods of smallholder farmers and the broader farming community.
Risk management	eFishery consistently develops and upgrades products and services to enhance financial access, ensuring they meet the evolving needs of farmers
Commitment & Targets	<ul style="list-style-type: none"> • Increase total numbers of farmers receiving financing • Increase total numbers of financing disbursed to farmers • Increase sustainable production of fish and shrimp with integrated traceability • Improve farmers and community livelihood
Policy	<p>Our commitment is supported by the following policies and internal plan:</p> <ul style="list-style-type: none"> • Embedding thriving communities principles into the Code of Conduct and Supplier Code of Conduct • Good Corporate Governance practices • Anti-Fraud and Anti-Corruption policies • Eliminating Hunger and Food Security Plan • Impact Strategy & Impact Action Plan • Environmental and Social Management System (ESMS) • Zero tolerance for Child Labour and Forced Labour • Commitment to Human Rights • Diversity, Engagement & Inclusion (DEI) Policy • Whistleblower Policy • Internal & External Grievance Mechanism • Stakeholder Management
Evaluation	The Executive Committee, along with the Impact Committee and ESG Committee, leads the thriving communities initiatives while advancing both existing and potential programs. In business expansion and partnerships, eFishery conducts thorough evaluations and due diligence based on ESG compliance , with a focus on partners who prioritize the wellbeing and livelihoods of farmers and communities. eFishery remains committed to extending its positive impact within farming and coastal communities, and beyond.



"eFishery's innovative business model disrupts the entire value chain which makes it a very attractive investment which aligns with our goal of helping to achieve the Sustainable Development Goals (SDGs) and fostering a more sustainable and equitable Agrifood industry. We look forward to supporting eFishery as it continues to change the industry and create a lasting positive impact"

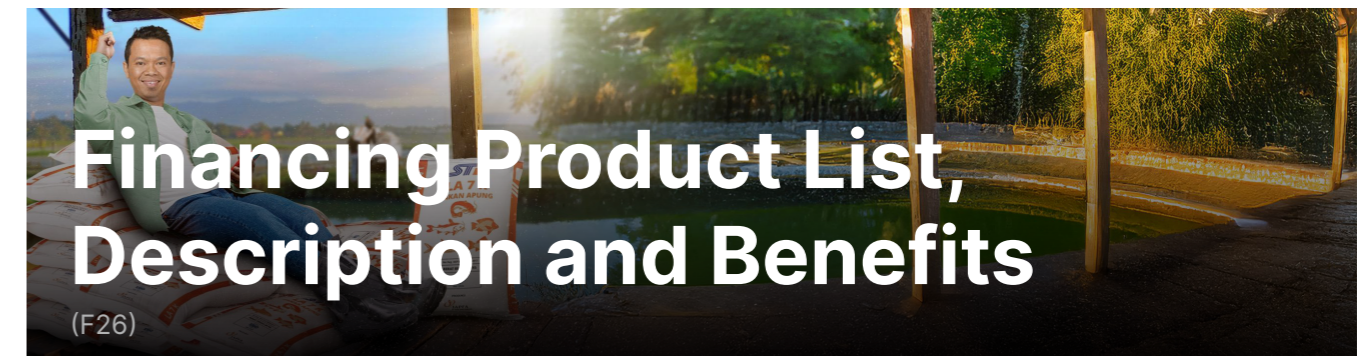
Rik Vyverman, Global Head of Sustainable Food Equity at responsAbility, July 2023 press release

Social Performance

Financing

<p>Kabayan</p>	<p>The Kasih, Bayar Nanti (Kabayan) program acts as a gateway, providing farmers access to financial institutions that are registered and supervised by the OJK, enabling farmers to acquire feed and other essential farming supplies.</p>	<p>Financial access and farming assistance.</p>	
<p>Contract Farming</p>	<p>A partnership program where farmers receive feed and cultivation production facilities and supports, with the joint collaboration in harvest offtake</p>	<p>Financial access and farming assistance.</p>	
<p>Coop Farmers</p>	<p>eFishery cooperative farmers benefit from a prime membership fee structure that ensures access to comprehensive resources and support. Members are guaranteed of feed supply directly from the principal, receive offtake guarantee, with blockchain technology and traceability systems in place to enhance transparency and track the entire supply chain</p>	<p>Financial access and farming assistance.</p>	

Social Performance



Farmers encounter significant capital challenges that hinder their growth. Many struggle to access financial institutions and face difficulties in securing funds for farming. Crop failures further exacerbate these issues, leaving farmers without the operational capital needed to restart their cycle. Limited access to quality feed and high interest rates from informal funding sources create further barriers.

Conventional banks often impose inflexible loan limits, making it difficult for farmers to secure adequate funding. The requirement for asset collateral poses an additional challenge, especially for those who lack sufficient assets. Many farmers also find it challenging to repay loans if they have not yet sold their harvests, leading to a cycle of financial instability that hampers their ability to thrive.

Kasih Bayar Nanti (Kabayan)

Kabayan offers easy and secure access to financial institutions registered and supervised by OJK for the purchase of feed, allowing farmers to make payments after harvest.

Developed by eFishery, Kabayan is an innovative mobile application designed to provide farmers with easy, friendly, and secure financial access. It helps farmers obtain the necessary financing to support their farming needs, such as purchasing feed, through a flexible and affordable approach. Kabayan is part of eFishery's commitment to easing the financial burden on farmers by offering a deferred payment scheme for feed purchases. With Kabayan, farmers can buy feed and pay after harvest, eliminating the need for upfront costs and improving cash flow, allowing them to focus on increasing production without excessive financial worries.

Kabayan offers a fast and simple application process, as well as efficient data verification through integration with eFisheryku. To cater to farmers' needs, eFishery provides several tailored loan products, including **Kabayan Express**, **Kabayan Lite**, **Kabayan Regular**, and **Kabayan Jawara**, with flexible payment limits and terms based on the capacity and requirements of the farmers.

Kabayan also includes features such as transaction history, promotional information and special offers, as well as useful updates on aquaculture sector developments. Farmers can also purchase feed online through eFisheryMall, integrated with a virtual payment system (VA) to ensure safe and timely transactions. Kabayan provides a comprehensive solution that supports the growth and sustainability of farmers' businesses in Indonesia by leveraging digital technology. It fosters a more efficient, transparent, and inclusive aquaculture ecosystem, delivering real benefits to farmers across the country. Starting in 2023, Kabayan has expanded into the shrimp farming sector with the launch of Kabayan Shrimp, covering input to output aspects of shrimp farming.

Collaboration with Financial Institutions

eFishery, through Kabayan, collaborates with various stakeholders such as banks, fintech companies, and multifinance institutions. To date, more than 10 financial institutions have partnered with eFishery. To maintain these relationships, eFishery holds Quarterly Meetings and High-Level Management Visits, which include activities like financial literacy programs, pond visits, and performance reviews, along with discussions on future business potential.

Kabayan advantages:

- Available at all eFishery Points across Indonesia
- Payments can be deferred for up to 12 months
- End-of-tenor payment scheme, not installment-based.
- Payments can be made with harvest proceeds

Kabayan Products

Product	Descriptions
Kabayan kilat	<ul style="list-style-type: none"> Feed purchase financing ranging from 3 to 20 million Rupiah Designed for micro and seed farmers Payment deadline of up to 4 months Data validation conducted by a surveyor Available at 120+ ePoints, with continuous expansion
Kabayan lite	<ul style="list-style-type: none"> Feed purchase financing ranging from 20 to 50 million Rupiah Designed for micro and seed farmers Payment deadline of up to 6 months Approval within one day Data validation conducted by a surveyor
Kabayan Reguler	<ul style="list-style-type: none"> Feed purchase financing ranging from 50 to 200 million Rupiah Designed for micro and middle-scale farmers Payment deadline of up to 6 months Available across Indonesia
Kabayan jwara	<ul style="list-style-type: none"> Feed purchase financing ranging from 200 million to 2 billion Rupiah Payment deadline of up to 6 months Designed for farmers requiring large quantities of feed
Kabayan Seeds	<ul style="list-style-type: none"> Available for farmers who have joined the eFishery ecosystem 100% financing for seed needs Payment deadline of up to 6 months
Kabayan Inti Plasma	<ul style="list-style-type: none"> Community-based model, managed by one trusted farmer Payment deadline of up to 12 months



"As an Indonesian aquaculture technology company, eFishery is committed to grow alongside farmers and their ecosystem. This commitment drives our efforts to provide financial products that improve farmers' welfare. By leveraging farming data, farmers can experience the benefits of these financial products while also improving their livelihood as they continue to grow. Our financial products provided are safe and secure, as we collaborate with financial institutions registered and supervised by the OJK.

eFishery is dedicated to becoming a strategic partner for farmers by offering sustainable, secure, and profitable financial products, while actively contributing to the sustainability of the aquaculture sector", *Diajeng Reisa, VP of Financing*

Initiatives & Investment Pipeline (F25)



Farmers Ecosystem KASeF Garut

The initiative focuses on providing farmers with affordable technology, internet access, electrification, and overall improved livelihoods.

In collaboration with PT PLN (Persero), ICON+, and the Department of Fisheries Garut, the initiative delivers affordable technology and resources that enhance the livelihoods of farmers, empowering them with the tools and infrastructure needed for sustainable growth.



Farmers Ecosystem KASeF Cilacap

The initiative provides integrated solutions for farmers through pilot projects and promotes financial inclusion.

In collaboration with the Sub-District Government of Wanareja, Hijra Group, and the Ministry of Cooperatives and SMEs, this project aims to deliver integrated solutions that support financial inclusion and sustainable growth for farmers.



eFishery Multi-Party Cooperative

The eFishery Multi-Party Cooperative is a collaboration between multiple groups and organizations that share the same vision and mission, working together to achieve common goals effectively and efficiently.

eFishery operates as a technology-driven cooperative with the potential to scale industrially, providing access to capital and markets. This creates high added value and significant benefits for its members while upholding cooperative values and principles.



Product Connectivity

eFishery and the Indonesian Association of Hotels and Restaurants (PHRI) West Java have announced a cooperation to supply fish and shrimp, aimed at meeting the seafood demand of the hospitality and restaurant sectors in the region.

A collaboration to supply fish and shrimp products to a network of hotels, restaurants, and cafes under the PHRI West Java, aimed at supporting fish and shrimp farmers by expanding their market access through the hospitality sector.



Farmers Life Insurance

Offering life insurance as part of the Kabayan funding package to provide risk protection for farmers.

eFishery and PT Dwi Cermat Indonesia have partnered to create a life insurance program specifically for farmers, integrated with additional financial services. This initiative aims to offer farmers essential risk protection while streamlining access to financial products. Cermati.com, an Indonesian fintech startup, enhances this process by simplifying how users discover and apply for financial solutions online



Community Wellbeing

Basic education, nutrition and health access supports for the community

uilding an Educational Facility at SD Negeri Cikadu, Cikalong, aligns with eFishery's Shrimp Sustainability & Community Development Pillar, offering added value to communities in need near our shrimp farms. Under this pillar, eFishery is committed to improving the quality of education by providing better facilities in the classrooms of schools around our shrimp farms. The support includes tables and chairs for students and teachers, bookshelves, book cabinets and whiteboards.

Social Performance



Fish Feast Day West Java

The Fish Feast Day initiative aims to promote a culture of fish consumption by raising awareness about its importance in daily diets, while also supporting local economic development in the fisheries sector. The event was held on November 7, 2023, at the Sukajadi District Hall, Bandung City, in collaboration with various stakeholders, including the Department of Fisheries, Family Empowerment and Welfare Movement (PKK), Integrated health service post (Posyandu), and the District government. A total of 125 kg of tilapia was provided to benefit 125 at-risk communities affected by stunting.



Fish Feast Day North Sumatra

The Fish Feast Day initiative aims to promote a culture of fish consumption by raising awareness of its importance in daily diets, while also supporting local economic development in the fisheries sector.

Fish Feast Day North Sumatra was held in Binjai City, in collaboration with various stakeholders, the Department of Fisheries, Family Empowerment and Welfare Movement (PKK), Integrated health service post (Posyandu), and the District government. A total of 150 kg of tilapia was provided to benefit 150 individuals at risk of stunting.



Fish Feast Day West Nusa Tenggara

eFishery Supports 225 Kg of Catfish for 30-Day Stunting Intervention in Aik Berik Village, Central Lombok. The activity was supported by the Acting Governor of NTB/Head of PKK NTB, Deputy Regent of Central Lombok, and Head of Central Lombok Department of Fisheries

This Fish Eating Day is a series of Campaign activities to get NTB residents used to eating fish with protein content equivalent to or even more than chicken or meat. The main target beneficiaries are 35 toddlers and pregnant women.



Fish Feast Day South Sulawesi

eFishery Supports 200 Kg of Tilapia for 30-Day Stunting Intervention in Lekopancing Village Collaboration with the Village Government that will help Distribute Complete Stunting Food with Additional Fish on the Menu

This Fish Eating Day is a series of Campaign activities to get South Sulawesi residents used to eating fish with protein content equivalent to or even more than chicken or meat. The main target beneficiaries are 32 toddlers.



National Fish Day

The National Fish Day Event is an annual event held by the Ministry of Marine Affairs and Fisheries ("KKP") to commemorate National Fish Day.

The objective of the collaboration between eFishery and KKP in the National Fish Day Activity is to secure commitment in increasing awareness on the importance of fish consumption to prevent stunting. The National Fish Day activity was carried out on November 19-21 with a total of 450 Pax of fish recipients.



Social Performance



Key Performance

Financing Aspect	2021	2022	2023
Total numbers of financial products to farmers	2	4	5
Total farmers received financing	4,094	9,025	15,191
Total Average financial access received per farmers (IDR)	52,329,606	49,029,002	43,040,729
Total Average financial access received per farmers (USD)	3,668	3,117	2,792
Total disbursement value for all financing products (IDR)	214,237,407,720	442,486,742,866	653,831,708,088
Total disbursement value for all financing products (USD)	15,018,390	28,129,223	42,412,539

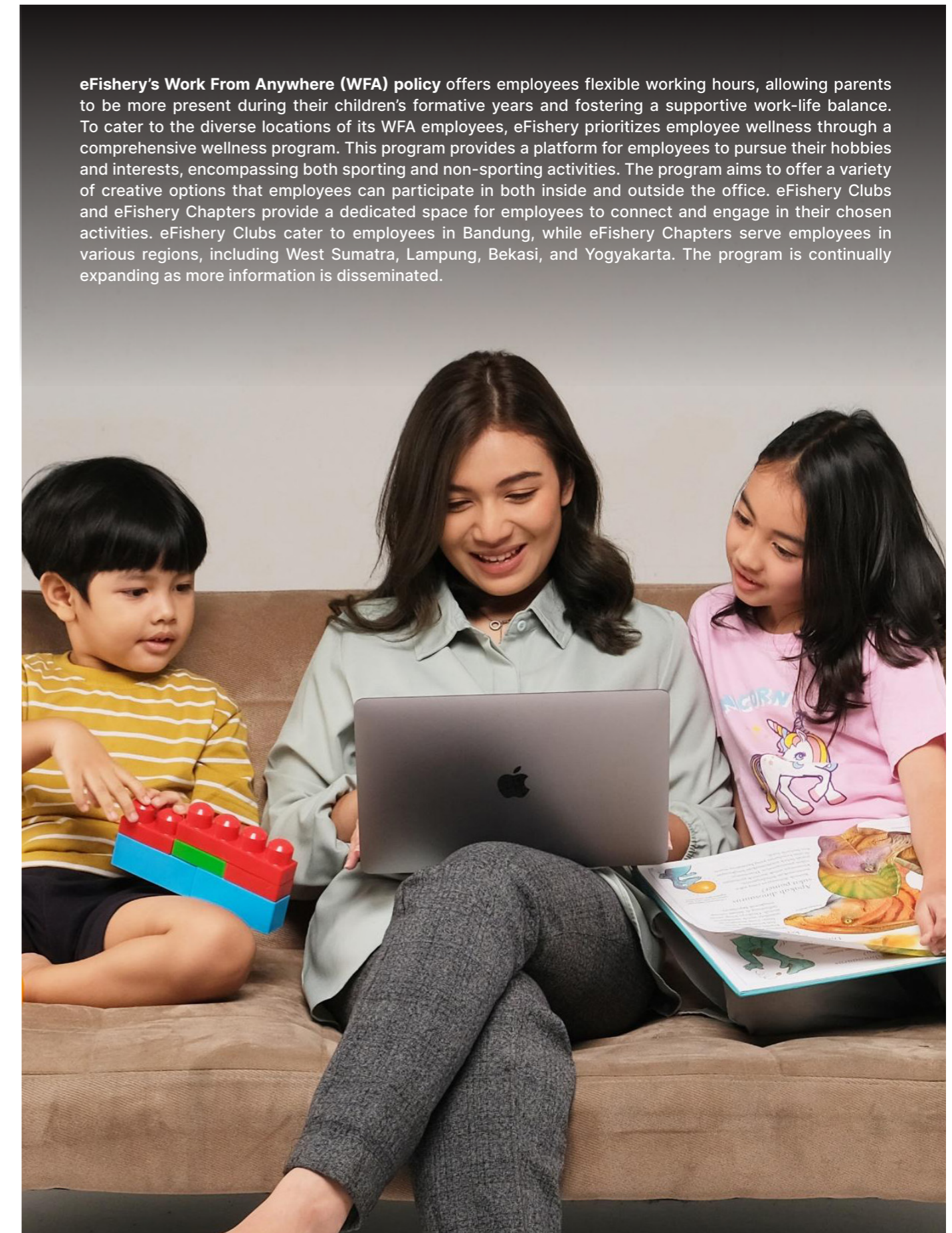


Human Capital Development

Decent and Safe Working Environment (F20, F21, IFC2, 401-2, 405-1)

In addition to enhancing the wellbeing and livelihoods of farmers in our core operations, we are committed to supporting the welfare of our internal eFishery employees. The People Department plays a crucial role in shaping the policies that guide our company-wide initiatives. These policies are designed to promote fairness, transparency, and efficiency, ensuring that all employees understand the standards and procedures that guide their work. Here is an overview of the key policies developed by the People Department, implemented company-wide

- 1. General Company Regulations.** As the cornerstone of our corporate governance, it establishes the rules and guidelines that all employees must follow, covering aspects such as conduct, disciplinary procedures, and overall employee expectations. This policy ensures a respectful and orderly work environment.
- 2. Promotion Policy.** This policy outlines the criteria and process for employee promotions. It ensures a transparent and merit-based advancement system, recognizing and rewarding employees based on their performance and achievements. This policy supports career growth and motivates employees to excel.
- 3. Hiring Policy.** The hiring policy provides a standardized approach to recruiting new talent. It includes guidelines on job postings, interview processes, selection criteria, and onboarding procedures. This policy ensures fairness and consistency in hiring practices, helping us attract and retain top talent.
- 4. Business Trip Policy.** It sets forth the procedures for employees who need to travel for business purposes. It covers the approval process, expense reimbursements, travel arrangements, and safety guidelines. This policy ensures efficient and cost-effective business travel while prioritizing employee safety.
- 5. Flexible Benefit Policy.** The flexible benefit policy offers employees a range of benefit options, allowing them to tailor their benefits package to their individual needs. This includes health insurance, wellness programs, and other fringe benefits. This policy enhances employee satisfaction and promotes their work-life balance.
- 6. Car Ownership Program.** This program provides employees with an opportunity to purchase a car through a structured plan facilitated by the company. It includes financing options and other incentives to make car ownership more accessible to employees.
- 7. Employee Loan Policy.** This policy allows employees to apply for loans from the company under specified conditions. It outlines the eligibility criteria, loan terms, repayment procedures, and interest rates. This policy provides financial support to employees in need.
- 8. Non Home Base Policy.** This policy governs the terms and conditions for employees who work from locations other than their primary residence. It includes guidelines on allowances, accommodations, and other support measures to ensure employees can effectively perform their duties while away from their home base.
- 9. Employee Movement Policy.** This policy addresses the procedures for internal employee transfers and relocations. It outlines the criteria for movement, approval processes, and support measures to ensure smooth transitions and minimal disruption to operations. These policies are integral to our commitment to maintaining an organized, supportive, and efficient operational environment. They are continuously reviewed and updated to align with the evolving needs of our company and its workforce, ensuring we remain competitive and fair in our practices.



eFishery's **Work From Anywhere (WFA) policy** offers employees flexible working hours, allowing parents to be more present during their children's formative years and fostering a supportive work-life balance. To cater to the diverse locations of its WFA employees, eFishery prioritizes employee wellness through a comprehensive wellness program. This program provides a platform for employees to pursue their hobbies and interests, encompassing both sporting and non-sporting activities. The program aims to offer a variety of creative options that employees can participate in both inside and outside the office. eFishery Clubs and eFishery Chapters provide a dedicated space for employees to connect and engage in their chosen activities. eFishery Clubs cater to employees in Bandung, while eFishery Chapters serve employees in various regions, including West Sumatra, Lampung, Bekasi, and Yogyakarta. The program is continually expanding as more information is disseminated.

Social Performance

Employee Capability Training and Development

(F22, IFC2, 404-1-3)

eFisherians is the term for employees at eFishery. They are highly dedicated individuals who are committed to supporting innovation in aquaculture sector. eFisherians work together in a solid and dynamic team, combining knowledge of technology and expertise to create products and services that help farmers improve efficiency and productivity.

Working at eFishery offers a learning-rich work environment. eFisherians are encouraged to always think creatively and find innovative solutions to overcome problems faced in the aquaculture business. Support from open and transparent management makes every employee feel appreciated and heard. In addition, an inclusive and collaborative work culture creates an atmosphere where everyone can grow and give their best contribution.

We provide many opportunities for eFisherians to grow professionally and personally. The ongoing training and development programs implemented aim to ensure that every employee can continue to learn and improve their skills. Modern work facilities and flexibility in working are also added values that make eFisherians feel comfortable and motivated to give their best. With the culture and values implemented in the company, working at eFishery is not just a job, but also a journey to create a positive impact in the aquaculture industry and the wider community. In today's fast-paced business environment, eFishery prioritizes the growth and development of its employees through continuous and relevant learning and development programs as summarized below.



Social Performance

Employee Capability Training and Development



Number of trainings and development to employees

241



Participation Rates

94%,
total of 1,892 employees



Total accumulated training hours

40,000+ hours



Average annual hours of training per employee

Average in 14 hours,

- with 12 hours for male and 4 hours for female
- Managerial: 12 hours (7 hours for male, 3 hours for female)
- Non Supervisory: 15 hours (14 hours for male, 4 hours for female)
- Supervisory: 15 hours (12 hours for male, 5 hours for female)



Mandatory modules

Self-learning Culture with eFishery Campus Learning Management System (LMS)

- Aquaculture: Specialized training in fish and shrimp farming.
- Company Mandatory: Essential courses for compliance and company standards.
- Core Technical: In-depth technical knowledge for specific roles.
- EFICAPS Leadership & Soft Skills: Developing leadership qualities and essential soft skills.



Modules for development

The learning development module is customized to meet the specific needs of leaders in each department, with topics selected based on a thorough development needs analysis

Social Performance

Utilizing the LMS and monitoring learning evaluation results are essential for effective training and continuous improvement. This approach allows us to track progress, identify enhancement areas, and help all eFisheries meet their learning goals efficiently. Our eFishery Campus LMS offers 137 courses on average, each user spends 1.57 hours engaging with content. Overall, eFisheries expressed high satisfaction with a score of 3.40 out of 4.00, and the training effectiveness was rated highly effective at 89.92%.

The curriculum developed by eFishery is tailored to meet the specific needs of each job role, ensuring the acquisition of soft and hard skills relevant to aquaculture and core technical competencies. The implementation of a centralized Development Needs Analysis (DNA) process has simplified the identification of learning needs and facilitated the evaluation of training effectiveness through the DNA Monitoring & Analysis Dashboard. eFishery fosters a culture of meritocracy, collaboration, and experiential learning to support the career aspirations of its employees. In 2023, over 380 employees, of which 104 were women employees were promoted internally, and over 50 employees benefited from lateral moves within the organization, reflecting eFishery's strong commitment to internal talent development. eFishery

recognizes employee achievements through badge award programs such as Future Leader, Tech Ninja, Sales Champion, Value Bringer, and Team Player that highlight outstanding performance in various areas.

Recognition programs at eFishery not only reward individual achievements, but also serve as an incentive for employees to recognize the contributions of their peers, thereby reinforcing a culture of mutual respect and appreciation. We design coaching programs to support employee development through personalized guidance and feedback. The Growth to Perform coaching program focused on employees with below-expectation performance, involved 157 coaches and 293 coaches, and addressed both qualitative and quantitative aspects of performance improvement. Leadership Coaching, guided by the EFICAPS leadership framework, involved managerial-level coaches who provided customized development advice based on leadership profile results. The initiative enhances leadership capabilities and ensures the continued growth of eFishery's future leaders. Through this comprehensive coaching and development effort, eFishery ensures that its workforce is well-prepared to face the challenges of a dynamic business landscape, thereby contributing to the sustainability and overall success of the company.



Employee Career Development (IFC2, 404-3)

In our vision to help feed the world through aquaculture, each and every contribution from our eFishery is very crucial. We believe that providing eFishery with the opportunity to grow together should be our priority. We employ three core principles:

1. Experiential Learning

In eFishery we believe that learning is not only an intellectual pursuit. Learning should be based on going through real life experiences and then processing those experiences into valuable lessons we employ in how we get things done in the company. This is why we value activities like "field visits" so highly, even for our most senior team members, to help them learn the core issues of our customer and bring it back to eFishery to be solved.

2. Meritocracy

We believe that someone's progression within eFishery should be based on their contribution and impact to further eFishery's vision. This creates an environment where everyone involved is encouraged to put eFishery's collective interests above their own. This also means we are affording eFishery opportunities based on their ability and impact that has been delivered.

3. Collaboration

The core spirit of #growtogether is collaboration. We truly believe that if we want to go far, we have to do it together as a collective. We encourage everyone within eFishery to collaborate across the organization and not be bound by a set of written responsibilities.

Social Performance

Recognition Program

Employee recognition is a vital practice in our company, serving to show appreciation and acknowledge employees' contributions to the business. This practice aligns with our company's purpose, mission, and values, reinforcing a culture of recognition and appreciation. Effective recognition programs are those that resonate with the organization's mission, vision, values, and goals. Our reward program is designed to align employee aspirations and goals with those of the company, creating win-win scenarios that foster mutual growth and satisfaction. This approach allows employees to feel valued and proud of their contributions, knowing that their efforts make a meaningful difference.

Our recognition badges and programs include:

1. **Future Leader**
This badge recognizes employees who demonstrate exceptional leadership potential and capabilities, aligning with our vision of nurturing future leaders within the company.
2. **Tech Ninja**
Awarded to employees who exhibit outstanding technical skills and innovation, supporting our mission to lead in technological advancements.
3. **Sales Champion**
This recognition is for employees who achieve remarkable sales performance, reflecting our commitment to excellence in our business operations.
4. **Value Torchbearer**
Awarded to those who exemplify our core values in their daily work, promoting a culture that aligns with our organizational values.
5. **Team Player**
This badge is for employees who show exceptional teamwork and collaboration, fostering a cooperative and supportive work environment.

Employees who receive the most selections from their peers through our HRIS, Darwinbox, are rewarded with flexible benefits. This system not only acknowledges individual achievements but also empowers employees to recognize and celebrate their colleagues' contributions. Some samples of such recognitions are:

"He has super strong capability on his task. He also develops his team and thinks about the career path of all his team members." - **Business Development Senior Associate**

"She is always come with a new idea and willing to face a new challenge in order to deliver a impactful result for the company - **Portfolio & Monitoring Associate**

During the onboarding process, the HR team provided a clear and comprehensive job description. My direct report's manager and Leader fostered a supportive and objective environment that empowered my professional growth. I actively contributed by focusing on achieving KPIs and OKRs, and conducted a SWOT analysis to optimize performance within my region. Additionally, I implemented regular monitoring and one-on-one sessions to guide and develop my team.

eFishery has cultivated an inclusive environment that embraces diversity and fosters a sense of belonging for all employees. While individual team OKRs and KPIs are important, I believe that aligning these goals with the broader company objectives is crucial for collective success. In terms of career development, eFishery offers a dynamic and accelerated path for growth, as evidenced by my team's member advancement from FCO to FCC within the 2022-2023 period. I am excited to continue my own professional journey within this supportive and stimulating environment.

Sunarto,
Region Manager





eFishery employs a total of 2,008 individuals across Indonesia and India. To provide a clearer understanding of our workforce and organizational structure, here is an overview of our Indonesian operations.

	2020	2021	2022	2023
Number of all employees: divided to permanent, part time, seasonal	FTE (Permanent+Contract): 332 - Seasonal:5 Total 337	FTE (Permanent+Contract): 856 - Seasonal:9 Total 865	FTE (Permanent+Contract): 1745 - Seasonal: 72 Total 1817	FTE (Permanent+Contract): 1970 Seasonal: 113 Total: 2083
Number of all employees: divided to regencies spread	- Head Office: 230 - Sites: 107 Total 337	- Head Office: 493 - Sites: 372 Total 865	- Head Office: 1097 - Sites: 720 Total 1817	- Head Office:1210 - Sites: 760 Total 1970
Number of all employees: divided by age and managerial position	Age Gen X: 11 Gen Y: 265 Gen Z: 56 Total 332 Managerial Position - Staff (I-II): 261 - Supervisory (III): 6 - Managerial (IV-VI): 62 - Executive (VII-VIII): 3 Total 332	Age Gen X: 26 Gen Y: 672 Gen Z: 158 Total 856 Managerial Position - Staff (I-II): 700 - Supervisory (III): 28 - Managerial (IV-VI): 121 - Executive (VII-VIII): 7 Total 856	Age Baby Boomers: 1 Gen X: 46 Gen Y: 1285 Gen Z: 413 Total 1745 Managerial Position - Staff (I-II): 994 - Supervisory (III): 490 - Managerial (IV-VI): 247 - Executive (VII-VIII): 14 Total 1745	Age Baby Boomers: 2 Gen X: 36 Gen Y: 1437 Gen Z: 495 Total 1970 Managerial Position - Staff (I-II): 773 - Supervisory (III): 774 - Managerial (IV-VI): 403 - Executive (VII-VIII): 20 Total: 1970
Number of Employees employed through third party contractors	0	0	131 Employees	583 Employees
Number of employees foreign non Indonesian	0	0	3	6

Number of permanent employees	325	850	1584	1707
Number of women permanent employees	76	152	353	395
Number of youth (24 years or younger) permanent employees	90	156	222	121
Number of CEO, CFO, CTO and/or other C-level officers	2 C-Level	2 C-Level	3 C-Level	4 C-Level
Vice Presidents, Managing Directors or other direct reports to C-level officers and/or other persons in senior managerial positions.	8	10	14	20
Number of employee in senior management (Senior Manager and up)	29 Employees	46 Employees	71 Employees	141 Employees
Number of women employee in senior management (Senior Manager and up)	2 Women Employees	6 Women Employees	13 Women Employees	30 Women Employees
Number of employees promoted	8 Employees	48 Employees	207 Employees	1327 Employees
Number of women employees promoted	2 Women Employees (25%)	14 Women Employees (29%)	48 Women Employees (23%)	113 Women Employees (29%)
Number of new hires recruited during the most recently completed fiscal year.	235 Employees	648 Employees	1433 Employees	1327 Employees
Number of benefits for employees	2	2	3	3
Content benefit programs for employees	- Health Insurance - Medical Claim	- Health Insurance - Medical Claim	- Health Insurance - Medical Claim - Employee Loan	- Health Insurance - Employee Loan - Flexi Benefit
Number of trainings and development to employees	NA	1	3	241

Diversity, Equity and Inclusion

(F18, IFC2, 405-1)

eFishery is committed to implementing the principles of diversity, equity and inclusion (DEI) in every aspect of corporate governance. We value the recognition and appreciation of the diverse backgrounds, perspectives and experiences inherent in employees, including differences in gender, ethnicity and religion. We ensure equality within the organization through business policies and practices that ensure that all employees receive fair and equal treatment in the recruitment, career development and compensation processes. We are strongly committed to implementing an objective performance appraisal culture, where performance is assessed based on contributions and results, and not based on an individual's identity or background.

We continue to take the initiative to support active participation and contribution from all stakeholders, to create a work environment where every voice can be heard and valued. Our principles of diversity, equality, and inclusion are an internalization of the internationally recognized GRI and the United Nations Global Compact (UNGC). The application of these principles of diversity, equality, and inclusion is not only used as a basis for eFishery to strengthen a fair and sustainable organizational culture, but also reflects a grand goal to become a leader in the Indonesian aquaculture industry that is responsible and actively contributes to

inclusive and equitable social development.

DEI Policy articulates the principles and provisions to improve DEI throughout the organization. The policy governs a variety of aspects, including recruitment and selection, compensation and benefits, professional development and training, promotions, transfers, social and recreational programs, layoffs and terminations, and the ongoing development of a work environment based on gender equality and diversity, and applies to all employees and contractors. Rooted in a firm commitment to equal opportunity, respect, and rights for all individuals, DEI Policy aligns with ethos, encapsulated in its tagline "All Rights for All People." This shapes the organization's culture and interactions with the broader community. The policy provides a comprehensive framework dedicated to fostering an equitable environment regardless of race, ethnicity, gender, sexual orientation, age, disability, religion, or other characteristics. We have specifically established a DEI technical team responsible for developing and implementing evidence-based DEI strategies based on four key pillars: equal access, inclusive innovation, social responsibility, and cultural competency, supporting its mission of providing innovative solutions to an increasingly diverse population.

"Joining eFishery has been a personal achievement for me, allowing me to continuously learn and develop my analytical, strategic, and business skills. The company's commitment to utilizing technology to eliminate hunger aligns with my personal values, making it a fulfilling work environment. While the journey has presented challenges, particularly in managing people, I am excited to contribute to the company's growth and make a positive impact both internally and externally."

"eFishery's inclusive environment encourages me to share my ideas and contribute to the company's growth. The company's supportive culture fosters employee engagement and personal development alongside business goals. I hope that the top management will prioritize leadership programs to empower employees' career growth and enable collective advancement."

Ade Suryaningsih,
Key Account Manager Horeca

Employee Responsibilities

We believe that fostering DEI is a collective effort. Each employee has a crucial role to play in creating an environment that celebrates and values our differences. As part of the eFishery team, employees are expected to embrace the following responsibilities:

- **Respect for All:** Show respect for the dignity and diversity of all colleagues and individuals encountered. Treat everyone with fairness and empathy, irrespective of their background or identity.
- **Promote Inclusivity:** Contribute to the creation of an inclusive environment that is free from discrimination, harassment, and bullying. Be an ally for colleagues, fostering an atmosphere of belonging for all.
- **Awareness of Bias:** Enhance awareness of potential unconscious biases that may affect the way we interact with others. Take steps to mitigate these biases and actively seek diverse perspectives.
- **Act with Intention:** Focus on conscious inclusion by being deliberate in actions taken to drive diversity, equity, and a sense of belonging. Be intentional in efforts to include all voices and experiences.
- **Open Communication:** Encourage open and constructive communication about DEI. Be willing to engage in dialogue and learn from others to promote understanding and cooperation.
- **Hold Each Other Accountable:** Be willing to hold oneself and peers accountable for upholding DEI principles. Report any incidents of discrimination or bias and actively participate in creating a fair and equitable workplace.
- **Contribute to Change:** Actively participate in DEI initiatives and policies, and be open to change that promotes diversity and inclusion. Recognize that diversity strengthens our team and fuels our success.

Leader Responsibilities

At eFishery, our leaders play a pivotal role in championing DEI throughout our organization. As leaders, they are entrusted with the following responsibilities:

- **Setting the Example:** Leaders are expected to lead by example, demonstrating a commitment to DEI through their actions and behaviors. They serve as role models for the organization, showcasing the importance of embracing diversity and fostering an inclusive environment.
- **Fostering Inclusive Leadership:** Our leaders are responsible for creating a culture of inclusive leadership. This involves actively engaging with diverse perspectives, valuing different viewpoints, and ensuring that all team members have an equal voice in decision-making processes.
- **Addressing Bias and Discrimination:** Leaders are accountable for addressing unconscious biases and discriminatory behavior within their teams. They must take action to prevent and rectify any instances of discrimination, harassment, or exclusion.
- **Communicating DEI Values:** Leaders are expected to actively communicate and reinforce the organization's DEI values to their teams. They convey the importance of diversity, equity, and inclusion and promote open dialogues on these topics.
- **Promoting Accountability:** Our leaders are responsible for holding themselves and their teams accountable for upholding DEI principles. They ensure that DEI goals are integrated into performance assessments and that progress is regularly monitored and evaluated.
- **Driving Change:** Our leaders play a crucial role in driving change by supporting and initiating DEI initiatives and policies. They work to create a workplace that reflects our commitment to 'All Rights for All People.'

Social Performance

Discrimination, Harassment, and Bullying

We provide equal employment opportunities on the basis of merit, which includes qualifications, abilities, performance, and accomplishments. We firmly prohibit any employee or job applicant from being discriminated against because of non-work-related personal traits such as race, color, religious beliefs, pregnancy, gender, national origin, ethnicity, social origin, family or marital status, age, physical or mental disability, medical condition, genetic information are all examples of distinguishing characteristics. We are committed to making reasonable accommodations for people with disabilities and those who have special requirements due to their religious practices.

Every employee has the right to work in a workplace free of harassment, offensive or inappropriate behavior. Our organization does not accept workplace harassment, bullying, or behavior that may lead to harassment, whether it comes from managers, supervisors, coworkers, or non-employees. This includes occurrences outside of the office, such as social media, that could have a reasonable influence on our employees or others in our workplace. We shall not hesitate to enforce applicable legislation and/or corporate policy for everyone.



Despite my lack of prior experience in aquaculture, I was drawn to eFishery's commitment to advancing the industry through innovative technology solutions. As a Channel Process Assistant Manager, I oversee the development and optimization of business processes in the shrimp sector, focusing on operational efficiency and cross-team collaboration. I work closely with various departments to ensure seamless workflows, effective strategies, and alignment with company goals."



"eFishery fosters an inclusive and supportive work environment that values diversity, collaboration, and employee development. Through eFishery Campus, employees have access to comprehensive training and development programs. A clear and transparent career path allows for internal promotions and recognition of individual contributions. Flexible work arrangements and employee wellness initiatives promote a healthy work-life balance. These initiatives demonstrate eFishery's commitment to empowering employees to reach their full potential and feel valued throughout their careers."

Santika Rachma Julianti,
Channel Process Asst. Manager

Social Performance

Human rights

(IFC2, 412-1)

eFishery upholds human rights as one of the main principles in corporate governance and is committed to ensuring that all aspects of operations have provided protection and respect for human rights, especially for employees, farmers, and local communities involved with eFishery. As a globally oriented company, human rights policies and practices explicitly refer to international standards of the Universal Declaration of Human Rights and the UN Guidelines on Business and Human Rights.

The human rights policy is designed to promote fairness, transparency, and efficiency through an understanding of work standards and procedures. Policies in the general company regulation aspects, promotion policies, recruitment policies, business travel policies, flexible benefits policies, car ownership programs, employee loan policies, non-home base policies, and employee movement policies, are designed to support an orderly and respectful work environment, support career growth and fair recruitment, facilitate safe and efficient business travel, increase employee satisfaction, and provide financial and logistical support to support welfare. We consistently evaluate and update to adjust eFishery

policies to the company's needs while still considering support for the fulfillment of human rights. All eFishery suppliers and business partners are required to comply with a code of ethics that aligns with human rights practices. Through a holistic approach, eFishery not only strives to create a conducive, fair, and sustainable work environment.

In its operations, we ensure that every individual involved in the eFishery value chain is treated fairly and with dignity, supported by a safe work environment, fair wages, and protection from discriminatory actions. Human rights policy is supported by a complaint mechanism that allows employees and stakeholders to report human rights violations confidentially and safely, and ensures effective corrective action on complaints received. Through the integration of human rights policies into corporate governance, eFishery consistently strives to create an inclusive and ethical work environment, and contributes to fair and sustainable social development. Policy steps in upholding human rights are not only a form of fulfilling legal obligations and compliance, but also a form of active role as an agent of positive change in society.

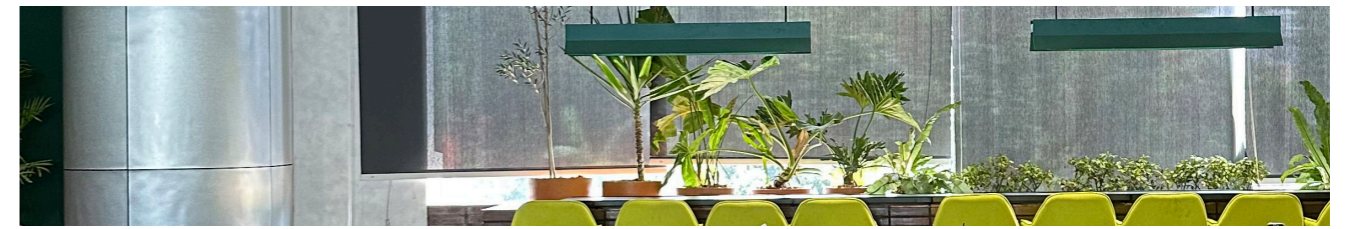
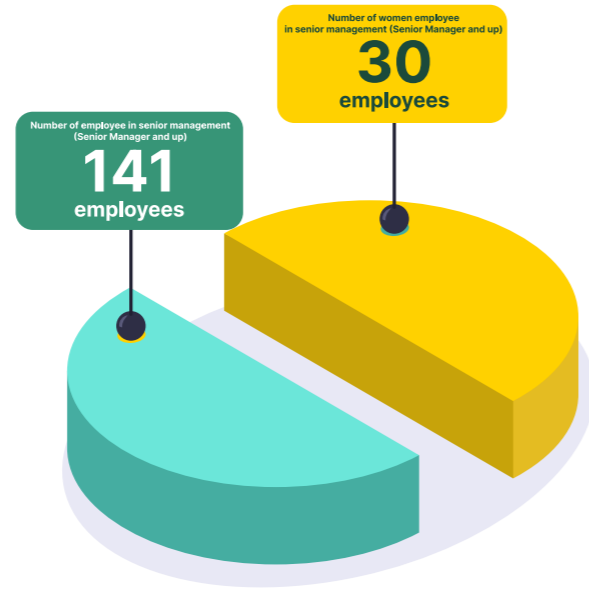


Women in leadership

In all eFishery Indonesia and India: **28.71%**



In senior management level: **21.27%**



- | | | | | |
|---|---|---|--|--|
|
Caecilia Adinoto
Chief Human Resource Officer |
Erwina Tobing
SVP of Legal |
Diajeng Reisa
VP of Financing |
Cita Rezkiani
VP Ops & Supply Chain Upstream |
Ava Rakhma
Business Performance & Partnership Senior Manager |
|
Elsa Vinietta
Head of Aquaculture Platform and AI |
Adilah Azizah
Head of CEO |
Annisa Nevitriana
Head of Marketing |
Trini Pratiwi
Senior Manager Sustainability & Development |
Eliza Humaira
Recovery Senior Manager |
|
Dessi Hertawati
Sustainability Strategy and Impact Specialist |
Jessica Tjendana
Head of Legal |
Wilma Zulianti
People Partnership Senior Manager |
Adriana Enge
Head of Product Upstream |
Natalia Puspa
Onboarding Manager |
|
Susmitha Annabattula
People Operations Manager |
Yunita Kurnia
Corporate Finance & Investor Relations Specialist |
Meenakshi Akasapu
Data Analyst Lead |
Lisa Ayu
Head of Channel Development & RTM Upstream |
Sri Mulyati
Transaction & Pricing Strategy Manager |
|
Eka Purwani
Head of Operation & Supply Chain |
Alla Vasavi
Data Analyst |
Luciana Murni
Head of Regulatory & Government Relations |
Jentina Purba
Head of Logistics |
Annisa Haryanti
Customer experience senior manager |
|
Akasapu Saritha
Data Analyst |
Jessika Amanda
Risk Methodology Specialist |
Vijaya Molli
Project Finance Manager |
Dwi Enamarty Sriyantini
Corporate Development Specialist CEO |
Nadia Ramdhani
Engineering Manager |

Women economic empowerment

As a unicorn that focuses on developing innovative products in the Indonesian aquaculture sector, eFishery places women's economic empowerment as one of the main pillars of its internal policies and corporate culture. In an effort to realize sustainable gender equality, eFishery consistently and firmly implements a policy of no gender pay gap, which ensures that every eFishery employee, both male and female, receives fair compensation based on an assessment of qualifications, performance, and responsibilities.

eFishery recognizes that equal pay is an important foundation in women's economic empowerment. Therefore, we always strive to create an inclusive and fair work environment where every individual has an equal opportunity to develop and reach their full potential. We implement a performance evaluation process that is based on individual achievements, skills, and contributions to the company to ensure that all employees receive the recognition and appreciation they deserve for their hard work and dedication. In an effort to ensure that every employee has an equal opportunity to advance and develop themselves, we provide career development and training programs, which provide equal access to professional career development opportunities for male and female employees.

Our commitment to women's economic empowerment is also manifested through support for female farmers, to improve individual welfare and strengthen local farmer communities. Our initiative in empowering female farmers is also a form of active contribution in supporting the SDGs that encourage gender equality and women's economic empowerment, as well as an active contribution to inclusive and sustainable economic growth. Through progressive internal policies and strong external support, eFishery strives to prove its commitment to implementing inclusivity and women's economic empowerment, and strives to continue to be an example for the aquaculture industry and become a leader in creating a more equitable and sustainable future for all.





**Governance
Performance**

Governance Performance



The eFishery Governance Policy adheres to the principle of legal compliance as the basis for developing transparency, credibility and acceptability, to create superior business operations and achieve sustainable Good Corporate Governance (GCG). eFishery implements an even division of tasks and establishes operational control policies in various fields as the main foundation in developing GCG.

In its efforts to realize GCG, eFishery is guided by work ethics and business ethics guidelines developed by the Governance, Risk and Compliance (GRC) Committee, an organizational structure that is flexible and can adapt to challenges unexpected changes quickly and effectively, guidelines and schemes for determining fair performance compensation, as well as evaluation mechanisms that have been systematized and carried out periodically. eFishery has also developed policies and guidelines related to stakeholders which include efforts to safeguard stakeholders, equal treatment for all stakeholders, promotion and implementation of stakeholder rights, protection of data security and privacy, and prevention of conflicts of interest.

We are dedicated to enhancing the quality of corporate governance in line with the National Governance Policy Committee's (KNKG) General Guidelines for Indonesian Good Corporate Governance. We consistently review and evaluate our practices to ensure effective, transparent, and standardized management across the company. Our commitment to continuous improvement focuses on key areas, including risk management, anti-corruption and anti-gratification measures, data privacy and security, and environmental and social management systems.

Governance Performance

We value the importance of risk management and are committed to promoting GCG, strengthening stakeholder trust, and facilitating the achievement of company goals through systematic and consistent risk management across all eFishery business operations. Risk management has become part of eFishery's culture, which is the basis and reference for eFishery in facing and mitigating business challenges. The risk management framework is prepared based on the international standard ISO 31000 Enterprise Risk Management (ERM), to ensure consistency of business operations and become the basis for systematic and consistent identification, assessment, management, monitoring and communication in order to minimize risks and limit potential impacts on business activities.

Under a committed Governance, Risk, and Compliance (GRC) department, efficient corporate governance and risk management are executed. Risk management plays an important role in implementing the risk management program at the organizational level, as well as providing advice and guidance regarding the risk management framework and processes in each division. Based on a "zeroing fraud" approach, we are committed to building an organizational culture that is ethical and complies with applicable laws and regulations. Risk governance and compliance management is carried out through a collaborative approach between departments with routine evaluations, feedback systems and regular audits.

GRC has launched a comprehensive program to improve the company's performance by accomplishing the OKR (Objective Key Result) of Zeroing Fraud. This program has led to two important outcomes. First, it fosters an integrity-driven culture, which is crucial for the successful implementation of fraud prevention strategies. This involves publicly promoting integrity and educating employees on ethical behavior and business conduct. Second, the initiative addresses high-risk corporate processes through targeted programs that aim to reduce these risks to manageable levels. By integrating the GCG team into key operations, we can identify and address potential vulnerabilities, significantly enhancing the company's resilience and success while promoting an ethical and sustainable corporate environment.

"At eFishery, we are unwavering in our commitment to exceptional corporate governance, deeply rooted in robust risk management, transparency, and accountability. We implement stringent policies and systems to uphold business ethics, optimize operational efficiency, and ensure superior product quality, guaranteeing that our customers receive the best while maximizing our impact. By prioritizing stakeholder engagement and fostering strong, mutually beneficial relationships, we steadfastly support farmers and drive sustainable growth. Within the Governance, Risk, and Compliance department, we adhere to industry standards to ensure eFishery's growth is supported by a strong internal system. This rigorous approach guarantees that we consistently uphold the highest product quality standards and provide unwavering assurance to our stakeholders", **Mazlan Hashim**, VP of GRC



Governance Performance



Guiding principles (2-6, 201-1)

The principles of GCG are embedded in eFishery's work culture, to ensure that every employee carries out their duties with full responsibility, discipline and high work ethic. The principles of honesty and integrity require every employee to protect company values, comply with the code of ethics, and avoid actions that could harm the company. We ensure that every individual in the organization contributes maximally to achieving eFishery's vision and mission, as well as supporting the creation of a healthy and productive work environment.

eFishery consistently adheres to the basic principles that form the basis of every operational activity, and is formally regulated in the "2023-2025 Company Code of Conduct". We uphold the principles of objectivity and transparency in workforce management. This principle is the basis of commitment to continuously strive to create a harmonious and conducive work atmosphere, in order to encourage worker productivity and welfare. eFishery's commitment is actualized through career development policies and training programs that are implemented fairly, taking into account the competencies and needs of all parties.

Governance Performance



The principles of GCG are embedded in eFishery's work culture, to ensure that every employee carries out their duties with full responsibility, discipline and high work ethic. The principles of honesty and integrity require every employee to protect company values, comply with the code of ethics, and avoid actions that could harm the company. We ensure that every individual in the organization contributes maximally to achieving eFishery's vision and mission, as well as supporting the creation of a healthy and productive work environment. We confirm our commitment to upholding work and business ethics through the implementation of a comprehensive Code of Ethics. The eFishery code of ethics is formally regulated in the Work Ethics and Business Ethics Guidelines (Code of Conduct) which functions as a behavioral guide for all eFishery personnel in carrying out daily activities, both in internal and external work relations. Through this Code of Ethics, eFishery emphasizes main principles such as integrity, honesty, responsibility and professionalism which must be upheld by every employee and all managerial levels.

The socialization and training of Code of Conduct Peraturan Perusahaan highlights eFishery's commitment to robust guiding principles and a stringent Code of Conduct, reflecting our dedication to strong corporate governance and effective risk management. These values foster a culture of integrity, ensuring that all employees, in their interactions with vendors, customers, and stakeholders, consistently adhere to high ethical standards. The Code of Conduct plays a crucial role in guiding decision-making, enhancing organizational integrity, and ensuring compliance with legal and regulatory requirements, thereby building public trust and employee loyalty. To reinforce this commitment, employees receive training on the Code of Conduct at least once a year, with a participation rate of approximately 90% in 2023.

Further embedding these ethical guidelines, eFishery fosters a 'Integrity Culture' that combines consistency, honesty, and accountability into everyday activities. Building a reliable company environment, stopping unethical and dishonest behavior, and improving workplace efficiency via disciplined activity depend on this culture. eFishery keeps a whistleblower policy encouraging open and fair settlement of problems, enabling employees to disclose unethical activity without fear of reprisal, thus supporting the execution of these standards. eFishery's method combines ethical behavior with corporate governance to support a culture fit with strategic objectives and public expectations, therefore helping to maintain a respectable and moral company environment.

"Integrity is the essential filter for our decisions and behavior since it closes the distance between personal goals and corporate principles. This linkage guarantees in risk management that our activities not only safeguard the company but also promote an ethical and sustainable business environment", **Jessika Amanda**, Risk Methodology Specialist





Risk management not only focuses on mitigating physical risks, but also includes aspects of occupational health and safety, as well as ensuring the sustainability of business operations. eFishery ensures that every step taken to manage risk always considers employee welfare and a sustainable work environment. Through the implementation of a comprehensive risk management mechanism, we strive to not only protect the company's assets and resources, but also provide a guarantee of occupational safety and security for all eFishery employees. Strong commitment to implementing risk management is carried out to strengthen reputation as a responsible company, and is ready to face future challenges and risks with measurable and effective strategies.

Risk management plan is in line with the company's overall Zeroing Fraud, an OKR (Objectives and Key Results) driving force via two key channels: risk assessment procedures and cultural projects. Setting ethical norms and behaviors that stop fraud depends much on the cultural center, which is concentrated on developing an Integrity Culture and follows the Code of Conduct. This strategy is reinforced by a thorough risk assessment carried out by Risk Business Partners (RBPs) and Risk Owners, who find possible weaknesses across the operations of the business and lead focused improvement programs to reduce these hazards.

The company's respect of international standards especially ISO 31000 that offers a disciplined foundation for these operations. This criterion helps eFishery to keep a methodical approach to control risk, thereby assuring that its operations match global risk management guidelines and procedures. Following ISO 31000 eFishery guarantees that its risk management initiatives are scalable and efficient, thereby offering unambiguous directions for ongoing development.

The cooperative efforts among several departments including the Risk Management Department, Human Resources, Legal and Compliance have produced a risk management system's efficacy. Implementing the risk management procedures depends much on the leaders in these departments (Risk Owner's Department) as well as the RBPs and Risk Owners. These players are in charge of firmly integrating risk management into the operational and strategic levels of the company so that the goals of lowering financial losses, strengthening decision-making, increasing regulatory compliance, and maintaining company reputation are satisfied. This combined strategy supports zero fraud pledge as well as a proactive and alert company culture that gives ethical behavior and risk awareness first priority.

Implementing risk management has several goals and advantages, mostly meant to strengthen the company against possible risks and improve its operational effectiveness. The major goal is to drastically reduce fraud incidence thereby preserving operational integrity and financial resources. This proactive approach to risk control helps to greatly lower any financial and reputation losses, thus supporting the stability and expansion of the business. Moreover, good risk management helps to make better informed, data-driven decisions that complement its strategic goals, hence improving organizational performance. Following risk management guidelines such as ISO 31000 also increases regulatory compliance, helping to prevent legal difficulties resulting from non-compliance. In the end, these methods help to establish and preserve confidence among consumers, investors, and other stakeholders, therefore supporting market position and enabling environmentally friendly corporate operations.

“Embracing ESG within the Legal Department at eFishery extends beyond compliance—it underscores our dedication to ethical governance and sustainable practices. Our Legal Department plays a vital role in this commitment by leading initiatives that support our ESG goals. For instance, we’ve developed robust environmental compliance frameworks to ensure sustainable aquaculture practices. We’ve also collaborated on social responsibility programs, fostering community engagement and fair labor practices. Additionally, our department enhances governance structures, promoting transparency and ethical behavior throughout our operations. By aligning legal expertise with eFishery’s ESG vision, we not only mitigate risks but also create lasting value for investors, employees, and communities.”

Erwina Tobing, SVP of Legal Counsel





Anti Fraud and Anti Corruption

(205-1, 205-2, 206-1)

The GRC team collaborates closely with the Risk and Compliance departments to identify current and potential weaknesses in our systems that could lead to fraud. Our primary goal is to address these vulnerabilities by implementing corrective actions that reduce high-risk procedures to medium risk. This process involves not only resolving existing issues but also establishing measures to prevent future occurrences. By transitioning from remedial actions to proactive systems, we aim to ensure long-term fraud prevention.

Development of a culture of integrity is equally important for our government structure. This part of our approach is about including integrity and moral ideals at every level of the company. We accomplish this by means of ongoing education on our code of ethics, the need for compliance, and the part every staff member plays in preserving an ethical workplace. To guarantee these values are followed in every corporate action, regular training courses, seminars, and communication initiatives are implemented.

Our GRC projects are carried out by means of a cooperative approach amongst several departments. This guarantees that the plans include all facets of risk and compliance and are therefore thorough. Regular evaluations, feedback systems, and audits help us to constantly evaluate the success of our governance policies. This continuous assessment helps us to improve our methods and adjust to fresh risk management concerns.

Clarifying corporate governance and risk management policies as well as current policies compliant to which criteria and laws, supported by a set of interrelated agreements guaranteeing both compliance and strategic alignment across all levels of the company, eFishery has developed a crafted structure for corporate governance and risk management. The ERM (Enterprise Risk Management) Framework forms the basis since it guarantees worldwide compliance and integration of risk management into corporate operations by matching with ISO 31000 criteria. Setting the tone and general rules followed in all other texts depends on this framework.

Complementing this is event risk reporting (ERR), which records and evaluates risk events, therefore enabling proactive risk detection and early corrective action. Based on real-world events and possible risks, this approach is crucial for always improving the ERM Framework. Periodically used to evaluate and modify risk controls in place, the Risk Control Self-Assessment (RCSA) tool guarantees their effectiveness and helps the business to remain sensitive to the shifting risk environment. This instrument complements the ERM Framework to offer a continuous assessment mechanism feeding into strategies for risk management.

The GRC Charter guarantees that top management is committed and links the strategic relevance of governance, risk, and compliance to the company's overall goals so guaranteeing these areas receive the required support and resources. One essential component guaranteeing congruence between management's instructions and the operational activities of risk and compliance teams is this charter summarized below.

Standard Operating Procedures (SOPs)

Standard Operating Procedures (SOPs) for several facets of governance and compliance, including Early Warning Systems (EWS), Risk Champions, and Risk Committees, offer thorough, practical direction on applying the ideas expressed in the GRC Charter and ERM Framework. These SOPs guarantee consistent policy application all over the business and help to build a compliance and risk-awareness culture.

Risk Appetite Statement

Risk Appetite Statement is created to express the degree of risk the business is ready to tolerate in order to pursue its goals, thereby directing strategic decisions and ensuring they fit the risk tolerance set in the ERM Framework

Conflict of Interest Policy

Conflict of Interest Policy guarantees that all choices are taken free from personal prejudices, therefore preserving integrity and fairness in corporate operations. This policy guarantees that ethical issues are included into all aspects of business operations, therefore supporting the cultural objectives defined by the other papers.

These documents taken together build a strong and all-encompassing governance and risk management structure that not only shields the business from hazards but also advances strategic foresight and integrity. Every instrument and policy is connected and supports another to build a coherent and efficient government framework. Antifraud measures are rigorously overseen by board members, the executive committee, and the impact committee, ensuring a robust governance framework that prioritizes integrity and accountability at the highest levels of the organization.

eFishery continuously improves implementation of sustainable Anti-Fraud and Anti-Corruption based on the principles of Good Corporate Governance, laws and regulations and other applicable requirements. Currently, eFishery has Anti-Corruption and Whistleblowing policies which applies to all aspects of the Company's business and operational activities. Whistleblower channels are available 24/7 and guarantee complete confidentiality to protect the identities and concerns of those reporting issues.

Implementation of Anti-Fraud and Anti-Corruption

eFishery continuously strives to improve the culture of anti-corruption and fraud control within the eFishery environment, including through the following practices:

- Internal control**
 The Company has strengthened its internal control system to reduce the risk of bribery and corruption. This includes procedures for managing conflicts of interest, segregation of duties, third-party verification, and other measures aimed at preventing abuse of power.
- Regular Audit**
 The Company will conduct regular audits of its books and records to monitor its compliance with this Policy. This audit involves examining financial transactions, procurement processes, and other business activities that are potentially vulnerable to bribery and corruption.
- Internalization of Anti-Corruption Values**
 The implementation of internalization of anti-corruption values and control of gratification is carried out through training activities. The commitment to internalizing anti-corruption values in our company even started since its inception by bringing in Corruption Eradication Commission (KPK) employees as resource persons in training, and has been further enhanced by being carried out routinely once every 1-2 months. Anti-corruption training is mandatory for all our employees, and is carried out by the GRC division and in collaboration with the company's Human Resource division. This is done by the company in order to educate Company Personnel about their obligations and requirements to comply with company policies and applicable anti-bribery and anti-corruption laws.

By 2024, eFishery is determined to reduce the potential for fraud losses to 0.5% through a series of anti-fraud mechanisms implemented by various departments in eFishery in a comprehensive manner. Proactively, the Risk Department is tasked with identifying fraud risks that exist across eFishery's business operations and then developing an effective fraud prevention system. Likewise, the Internal Audit Department continues to strive to increase the chances of fraud detection through periodic evaluations of existing internal controls and the imposition of sanctions for fraudulent actions firmly. Regular anti-fraud training is conducted for all employees every 6 to 12 months to ensure ongoing awareness and vigilance.

Reporting Violations

As a form of implementing good corporate governance (GCG) and anti-fraud strategy, we implement a whistleblowing system (WBS) available in Indonesian and English. Both company personnel and third parties of eFishery can report ethical violations, fraud including corruption, or violations of the company's code of ethics through the WBS. Reporters can submit complaints through a special violation reporting channel: wbs@efishery.com using a predetermined report format that at least contains what violations were committed, when, where, and the chronology of the incident.

After receiving a violation report, the WBS unit is required to investigate each violation report, and the case will be investigated openly and independently by a trained investigation unit that has been appointed by the WBS unit. The investigation process for whistleblowing reports must follow applicable investigation standards, and guarantee the confidentiality of each reporter's identity.

Conflicts of Interest & Third Party Relationships

Personnel must use their best judgment to avoid conflicts of interest, especially where personal interests or relationships may conflict with the best interests of the company. In addition, personnel who obtain services/products or engage with third parties in their work must always comply with procurement procedures and supplier policies. Personnel are also responsible for taking reasonable precautions to minimize the risk of bribery and corruption by third parties. Employees receive a minimum of annual training based on our code of conduct, along with refresher sessions and updates on conflict management and resolution throughout their employment.

Anti-Money Laundering (AML) & Countering the Financing of Terrorism

We are committed to complying with all relevant anti-money laundering (AML) laws and regulations. All employees must be familiar with our AML policy and understand the transactions and activities that could lead to violations, such as aiding government officials in embezzlement, handling assets tied to illegal activities, and falsifying records to secure approval for criminal property.

Employees and affiliates of eFishery are strictly prohibited from engaging in any activities that facilitate money laundering or terrorism financing. Any personnel involved in such activities, even unintentionally, may face civil and criminal penalties. In our operations across multiple countries, we ensure that the core team handling transactions and active trading, as well as the broader team, receive training and formal agreements to conduct business in line with our company principles. All staff undergo a minimum of annual training, with refresher sessions provided throughout their employment.

Anti-Monopoly & Business Competition



Our anti-monopoly policy ensures that eFishery operates fairly and competitively, upholding the integrity of the aquaculture market while protecting the rights of customers, partners, and competitors. This policy aims to prevent unfair business practices, such as monopolies, cartels, and abuse of dominant market positions.

We are committed to complying with all relevant anti-monopoly laws in Indonesia. The company avoids actions that could harm fair competition, such as price fixing, market division, or creating exclusive conditions that disadvantage others. We provide regular training and transparent communication to ensure that all employees and stakeholders understand and implement this policy.

By enforcing a strict anti-monopoly policy, we foster a fair business environment that not only protects us from legal risks but also enhances our reputation as a responsible and ethical player in the aquaculture industry. This commitment allows us to grow and innovate while upholding the principles of fairness and competition. We prioritize rigorous training programs to ensure that all employees fully understand and adhere to anti-monopoly and fair competition principles. Through ongoing education and clear communication of our policies, we foster a culture of integrity that empowers our team to uphold ethical business practices in all operations.



Data Privacy and Data Security

(GRI 418-1)

Data security and privacy are the rights of every user and business partner that must be fulfilled to maintain stakeholder trust. Without user trust, we would not have been able to build the platform and ecosystem to this day. We are committed to maintaining data security and protecting user privacy in accordance with the company's code of ethics and internal policies, as well as government regulations. Policies on data privacy and data security are contained in several company regulations such as the GRC Charter, Data Protection Policy, and Conflict of Interest Policy.

The form of high commitment in maintaining privacy and data security can also be reflected in the implementation of data security audits carried out by collaborating with third-party legal consultants regarding eFishery Group data security. From January to December 2023, eFishery did not receive any complaints of user privacy or data security violations on all of its platforms.

We are committed to providing comprehensive training on data security and privacy principles, ensuring that every employee understands their responsibilities in protecting sensitive information. By integrating regular updates and practical guidelines into our training programs, we cultivate a culture of vigilance and accountability that safeguards our data and respects our stakeholders' privacy.

Environment and Social Management System (ESMS)

(IFC1, IFC4)

eFishery is committed to continuously fostering a culture of sustainable governance within the eFishery organization through the implementation of the Environmental and Social Management System (ESMS). Supported by a well-organized organizational structure, the implementation of ESMS aims to ensure that all environmental and social aspects that intersect with the eFishery business chain can be managed properly, including risk identification and assessment, impact mitigation preparation, and employee competency training and development.

eFishery specifically forms an ESMS implementation team with a workspace that covers environmental aspects, occupational health and safety aspects, and aspects of the company's environmental and social responsibility. In the environmental aspect, ESMS plays an important role in monitoring and managing environmental risks, preparing mitigation program plans, and ensuring evaluation and corrective actions for the company's environmental activities.

In the occupational health and safety aspect, ESMS plays an important role in identifying and managing occupational health and safety risks, ensuring the preparation of program plans to minimize risks arising from business processes, and ensuring evaluation and corrective actions in the implementation of occupational health and safety aspects at eFishery. In the environmental responsibility aspect, ESMS plays a role in ensuring that there are interactions that have a positive impact on the community and minimize the social impacts arising from business processes.

The implementation of ESMS is also a form of commitment to ensuring that all company activities are carried out ethically and responsibly, in accordance with statutory provisions, respecting human rights, and free from discriminatory actions. ESMS assists eFishery in implementing business integrity and transparency and ensures fair and honest business practices for all parties. ESMS is also an embodiment of culture that focuses on collaborative sustainability and inclusion.

Occupational Health and Safety (OHS)

(403-1,403-2)

Ensuring robust occupational health and safety measures within an Environmental Social Management System, as outlined by the IFC Performance Standards, is crucial to protect workforce and maintain operational sustainability. Prioritizing these standards not only mitigates risks but also fosters a positive work environment, enhancing overall productivity and compliance. This is rooted in OHS procedures that identify, monitor, evaluate and report on all OHS risks related to operations. Special appointment of dedicated Environment and Social OHS personnel is set with overall operation and monitoring is led by the GRC department, legal department and sustainability unit. OHS risk assessment has been initiated for routine and high-risk activities to identify further key improvement requirements and prepare the Hazard Analysis and Risk Control (HARC) procedures.

In implementing OHS, policies include the overall environment policy, labor and working conditions policy, ESMS policy and handbook and ESMS training plan. This includes OHS procedures, its SOP and monitoring system, Hazard Analysis and Risk Control (HARC) procedures and Personal Protective Equipment (PPE)

procedures. It focuses on identifying the necessary personal protective equipment (PPE), providing comprehensive training, and ensuring that staff have both access to and consistently use the required PPE. The PPE procedures ensure proper lifting, warehouse conditions and monitoring requirements are aligned such as temperature, humidity and other parameters inside the warehouse.

The Internal Emergency Response Mechanism outlines our risk management practices, detailing how to handle unexpected situations. This ensures we are prepared for emergencies such as fires, equipment failures, natural disasters, and riots. Our Emergency Response Team identifies and assesses risks and develops preventive measures. We conduct regular training and emergency simulations so eFishery employees understand their roles in responding to emergencies.

To minimize the impact of potential crises, we routinely monitor and inspect critical infrastructure such as embankments and machinery. This proactive approach helps us detect issues early and take corrective actions before problems escalate, reducing potential losses.

Solved Number of incident injury, accidents and other health and safety events

2021	2022	2023
1	1	2



The manifestation of eFishery's commitment to human rights and ethical work standards is by complying with government regulations, and implementing a series of strict policies to ensure that eFishery's supply chain is free from forced labor and child labor. All eFishery suppliers and business partners are required to comply with a code of ethics that prohibits these practices. Through this initiative, eFishery is committed to eradicating forced labor and child labor, and ensuring sustainability in all company operations. Avoidance of forced labour includes no tolerance on physical and verbal violence in work environment. Company commits to embedded freedom of association, anti-discrimination including policy and SOPs implemented.

One of the proofs of this commitment is that every employee recruited is protected by a legally valid employment agreement that has been agreed upon by both parties. eFishery also complies with Law No. 13 of 2003 concerning the prohibition of employing children, thus rejecting the practice of utilizing child labor by setting a minimum age limit to become an employee. During this reporting period, there have never been any cases of complaints of forced labor and child labor practices throughout the eFishery group or eFishery's business partners.

Grievance mechanism (IFC2, 403-1)

The grievance mechanism at eFishery is an integral part of the company's efforts to create a fair, transparent, and inclusive work environment. Two parts of internal and external grievance mechanisms are built as internal mechanisms within the eFishery employee working environment and external communication surrounding the community. Both internal and external apply anonymity for complaints submissions. It includes a set of policy, implementation system and monitoring system to track and resolve.

The policy is specifically regulated in company documents concerning Guidelines for Submitting and Resolving Company Complaints. The types of reports are divided into three: minor, moderate, and severe complaints. Specifically for the severe complaint category, it is managed by a special committee consisting of the Chief Human Resource Office (CHRO) division, Industrial Relations, Head of the relevant Directorate, and the company's legal department. This mechanism is designed to ensure that every employee has a safe and effective channel to convey their complaints, problems, or concerns related to the work environment, company policies, or interactions with coworkers.

This process starts with clear guidance on how to file a complaint, including the option for anonymous reporting through our complaint channel, ensuring that all eFishery employees feel comfortable and empowered to voice their concerns. Minor complaints can be made directly to the supervisor or Industrial Relations division either via email or verbally. Meanwhile, for moderate and severe reports, stakeholders can submit through the email complaint channel: industrial.relation@efishery.com or WhatsApp complaint channel of the Industrial Relations division. The complaint handling process at eFishery is carried out transparently and fairly. After a complaint is submitted, a special team assigned will immediately review and investigate the problem thoroughly. They ensure that every step taken is in accordance with company policy and applicable laws. All parties involved in the complaint will be given the opportunity to provide an explanation, and the results of the investigation will be clearly communicated to the reporter. eFishery is dedicated to promptly and thoroughly addressing every complaint, ensuring that issues are resolved to everyone's satisfaction.

Stakeholder engagement (2-29)

eFishery proactively engages stakeholders in every aspect of its business operations to ensure long-term sustainability that is equitable for all parties. Stakeholder engagement anchors in stakeholder engagement plan, assignment of personnel for stakeholder engagement and progressing towards regular documentation.

Through a collaborative approach, eFishery establishes strategic partnerships with farmers, communities, governments, academics, and non-governmental organizations to understand the needs

and aspirations of all eFishery stakeholders, while campaigning for eFishery's philosophy in developing sustainable and responsible aquaculture practices. eFishery consistently holds dialogue forums, training, and workshops, to develop the capacity and increase knowledge of farmers on the latest aquaculture technology, create shared value and strengthen mutually beneficial relationships with farmers, and ensure that eFishery's business operations provide a broad positive impact on the environment, economy, and society.

Water, wastewater, waste management (F14, FB-AG-140a.2, 303-2, 303-4, 306-1)

Effective water and wastewater management ensures aquatic resources management and minimizes environmental impact. Implementing rigorous practices in this area not only helps in maintaining regulatory compliance but also supports the health of surrounding ecosystems and communities. This includes implementing water and wastewater management procedures and its SOPs.

The procedure focuses on water quality management consisting of prevention of water pollution, water quality measurement frequencies, procedure in parameters and measurement of water quality and adherence to national standards on facilities and farms operated by eFishery. This includes domestic and hazardous waste management procedures. Specifically in hazardous material management procedures include handling hazardous materials, secondary containment and safety data monitoring.



Food safety (FB-AG-250a.2; 416-1, 416-4)

Food safety control mechanisms are implemented to ensure quality of fish and shrimp products processed adhering to food safety certification requirements. We ensure that our processing partner has complied with leading food safety certification under recognized standard by Global Food Safety Initiative (GFSI) such as British Retail Consortium (BRC), Safe Quality Food (SQF) and other standards. This ensures a comprehensive food safety management system that integrates farming SOPs and harvest and product quality SOPs at the farm level, aligning with food safety principles and seamlessly connecting to the processing plant. During our partnership with the processing plant, eFishery has not issued any product recalls, and there have been no food products recalled to date.

Governance Performance



Our Key Partners

(F19, IFC2, 406-1, 407-1, 408-1, 409-1)

Stakeholder engagement and Public Policy (2-29, 415-1)

Our commitment to stakeholder engagement is rooted in strong multi stakeholder partnership principles, which emphasize collaboration, transparency, and mutual respect. We actively engage with a diverse range of stakeholders, including farmers, customers, investors, and community members, ensuring that their insights and concerns are integrated into our decision-making processes. By fostering open dialogue and building trust, we aim to create shared value and drive sustainable growth, aligning our business objectives with the broader goals of our partners and the communities we serve. In our external partnerships, we engage with governmental and regulatory bodies, involvement in policy advocacy and aligning eFishery positive impacts in public policy development.



Governance Performance



"The national aquaculture industry is currently experiencing rapid development, largely due to advancements in technology that promote an efficient and environmentally friendly approach based on the blue economy. A notable innovation is the eFeeder, an automatic fish feeding machine designed to enhance feed efficiency and minimize waste, specifically for Saline Tilapia Farming (Budidaya Ikan Nila Salin (BINS)) in Karawang. This project serves as a pilot program for saline tilapia aquaculture in the region.

The initiative was inspired by the presence of approximately 78,000 hectares of non-operational shrimp ponds along Java's North Coast. Given the high market demand for tilapia, this presents a valuable opportunity for farmers to pivot towards tilapia farming.

We believe that the eFeeder will significantly enhance harvests by improving the quality of tilapia produced. Controlled via smartphone, the eFeeder allows farmers to easily schedule feeding times, optimizing their feeding strategies while saving time and energy. This innovation will help maintain water quality and increase farmers' potential income. Ultimately, we aim for this technology to make a substantial impact on sustainable aquaculture development based on the blue economy and improve the livelihoods of farmers"

TB Haeru Rahayu, Director General of Aquaculture, Ministry of Marine Affairs and Fisheries



"eFishery's commitment to running a sustainable business through the adoption of aquaculture technology aligns closely with the practices and innovations championed by the Ministry of Communication and Information Technology, particularly under the Strategic Sector Digital Transformation as outlined in Kominfo's Strategic Plan 2020-2024. In recognition of this alignment, Kominfo has partnered with eFishery to further expand the adoption of technology among farmers, enhancing their productivity and contributing to the broader goal of national digital transformation.

The collaboration with eFishery under the Digital Technology Adoption Program for the Fisheries Sector, specifically focusing on the Implementation of Automatic Feeder Adoption, farmers can optimize feeding practices, improve time and energy efficiency, maintain water quality, and increase their income potential. Additionally, this initiative is designed to empower farmers in various regions. Programs like this are envisioned to serve as key pilot projects for establishing a sustainable, technology-driven aquaculture ecosystem that produce high-quality products, and enhances the welfare of farmers"

Nezar Patria, Deputy Minister of Communication and Information Technology of the Republic of Indonesia.



"For a decade now, eFishery has solidified its position as a strategic partner to the Indonesian government at both the national and regional levels. This partnership is instrumental in fostering sustainable business practices and bolstering food security, with the ultimate goal of nurturing a golden generation of Indonesians by 2045. eFishery's technological advancements have been pivotal in empowering farmers to enhance productivity and expand their market reach. Moreover, the company is steadfast in its commitment to creating an environmentally friendly aquaculture ecosystem.

This year, in collaboration with government entities at various levels, eFishery has spearheaded numerous mangrove reforestation and initiatives as part of its ongoing efforts to preserve the environment. Additionally, eFishery's active participation in stunting prevention programs is a testament to its dedication to improving public health. By ensuring a consistent supply of high-quality fish protein from its network of farmers nationwide, eFishery is directly contributing to the government's goal of increasing protein consumption and promoting nutritious diets.

Building strong relationships and partnerships with local governments is vital for eFishery, as it fosters collaboration and facilitates support for sustainable aquaculture practices. These alliances enable us to align our initiatives with regional development goals, enhancing our impact and driving mutual growth."

Muhammad Chairil, VP of Public Affairs



"As a company that has business operations in a fairly complex value chain, this condition certainly has an impact on how eFishery's strategy can have an impact on the parties involved in our business ecosystem. Therefore, the mindset of sustainability becomes an important value for us to be able to grow and survive to continue to have a sustainable impact both for the environment, social, and economy as well as for the cultivators themselves. This certainly inspires us, especially in the RGR team, to always take actions that have an impact consistently. Because we believe that the best ideas are the ones that are implemented. This is also in line with one of eFishery's values, "your action matters", which has always been our guideline."

Luciana Dita, Head of Regulatory and Government Affairs

Association and Group Membership



Indonesian Fishery Producers Processing & Marketing Association (AP5I)



Shrimp Club Indonesia



NATIONAL FISHERIES INSTITUTE

National Fisheries Institute (NFI)





Our Impacts

In 2024, we conducted an impact evaluation to assess our positive contributions to farmers, with the findings documented in our Impact Report 2023, available on our website. This report underscores our ongoing commitment to enhancing our products and services within our ecosystem and supply chain. It highlights eFishery's initiatives aimed at fostering positive social and environmental outcomes and details the significant impact we have made in creating an inclusive ecosystem.

Key Products	Impacts
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eFishery leverages the power of its key products, including eFisheryku (Beli Pakan, Lapak Ikan, Kabayan and eFeeder), to drive positive impacts

- A **91%** increase in farmers' income
- An additional **IDR 19.2 million** net profit with 28.6% increase in profit probability

eFisheryKu

combines essential features from Beli Pakan, Lapak Ikan and Kabayan to deliver comprehensive solutions for farmers

- A **78%** increase in farmers' income
- An additional **IDR 11.2 million** net profit with 11% increase in profit probability

Key Products	Impacts
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Beli Pakan

- A **44%** increase in farmers' income



Lapak Ikan

- A **106%** increase in farmers' income

Kabayan

- A **60%** increase in farmers' income



- eFarm increases income, net profit and profit probability, with both active and non-active farmers have similar trends. Analysis indicates an average **22%** income, **9.1 million** net profit and **31.3%** increase in profit probability

eFeeder

- eFeeder increases FCR with average for both active and non active users **around 1.3**





Yayasan Efishery Tumbuh Bersama Pembudidaya (“eFishery Foundation”) was established in 2023 by eFishery to enhance aquaculture farming to create sustainable livelihoods and thriving communities. Its mission is to drive significant impact by transforming practices through advanced technology and financial expertise, addressing both national and global challenges. The eFishery Foundation focuses on building strategic initiatives and leveraging resources to maximize its positive effects on people and the environment.

The eFishery Foundation is guided by Gibran Huzaifah, CEO and Co-Founder, and Chrisna Aditya, Chief Product Officer and Co-Founder. Operations are overseen by Muhammad Chairil, VP of Public Affairs, while program design and overall implementation are led by our sustainability and development unit.

Over the past 10 years, we have developed many initiatives, products, and businesses to provide solutions for existing problems. We position ourselves as trailblazers; being the first aquaculture technology company in Indonesia when others were focused on consumer tech, being the first to create IoT in agriculture when others only focused on apps, being the first to provide end-to-end solutions to the food sector in rural areas when the majority of startups served urban people.

We aim to transform the aquaculture supply chain by conducting responsible sustainable farming practices and bringing positive contributions to local farming communities and larger Indonesian farmers. We aspire to grow our business into more sustainable while

Call to Action for Partnerships

Join us in revolutionizing aquaculture and fostering sustainable livelihoods by partnering with eFishery Foundation. We invite you to collaborate and contribute your expertise, resources, and innovative solutions to help us transform farming practices and tackle global challenges. Together, we can drive impactful change, enhance community prosperity, and protect our planet through strategic initiatives and cutting-edge technology. Your support will amplify our efforts to create a healthier, more sustainable future for all.

driving impacts to our farmers and wider communities in the country. eFishery foundation is built as a core vehicle for eFishery business to drive transformation and impact within our operation and beyond to our communities. We believe through improving sustainable aquaculture business practices anchored in leveraging financial access to farmers, we can make an impact at scale on SDG (Sustainable Development Goals) 1, 2, 3, 6, 9, 12, 13, 14, and 17. Our sustainability goals and commitments are translated into our 2030 ambitious claims and impact areas. By championing aquaculture best practices with the best in class technology, we support our farmers to continue production sustainably in an ecosystem balanced environment and thriving communities to sustain culture in the long term. This creates resilient farming households with improved livelihoods.

eFishery Foundation Grow together with farmers

Farming communities is an integral part of our company principle. The new eFishery Foundation enables us to escalate our ten years’ growth and take our actions to the next level. To grow with farmers is the core purpose. We want to fulfill this by designing holistic change-making programs in Indonesia, India and beyond.

This is a concerted effort to improve sustainable business transformation and driving impacts in farming communities and beyond, a critical objective to ensure eFishery can grow sustainably in the long term, enabling significant contribution to national and global issues. The foundation seeks to make an even greater impact in 2024 and beyond by building the foundation. The impact area of strategic initiatives and charitable activities of the company will be extended to farming communities in Indonesia, with focus on biodiversity, climate action and food security. The message is clear: we must transform into more sustainable business and expand greater impact to our communities - to grow together with farmers.



Vision and Mission

Vision	We grow together with farmers creating aquaculture farming as sustainable livelihoods towards a healthy, thriving and prosper communities
Mission	<p>We escalate and drive larger impacts of eFishery to help transform sustainable practices, leveraging farming communities and contribute to solving national and global largest issues - combining best aquaculture technology and financial access expertise. We build and connect strategic change-making initiatives with eFishery resources to make an even larger impact for people and protect our planet.</p> <p>We concentrate on three interconnected areas of growth aligned with the eFishery Sustainability Framework: Tech-Enabled Sustainable Aquaculture, Biodiversity & Climate Action, and Thriving Communities. At the core of our mission, we are dedicated to supporting smallholder farmers, fostering an inclusive aquaculture sector that empowers their growth. Through these focused efforts, the foundation amplifies the positive impact of eFishery, extending benefits to the broader community and driving meaningful progress.</p>

Funding Mechanism

‘Every feeder installed, every fish and shrimp consumed counts’	The main income stream of the foundation will be the new ‘Every feeder installed, every fish and shrimp consumed counts’, effective on 11 October 2023. eFishery donates x cents per dollar for our products purchase including feeder, fish and shrimps sold offline and online in Indonesia and worldwide. eFishery customers and efisherians play a huge part in supporting the foundation work.
‘Sharing Resources’	We partner with national and local governments, private sectors and non profit organizations to matchmake resources and eFishery resources in our foundation works.
‘Fundraising and Impact investment’	We partner with our coalition of investors and impact investors to seek innovative programs through impact investment, co-funding, combination of blended finance, green financing and other forms that can be coupled with eFishery resources.



Farmers Story Hub



Osyan Effendi
Fish Farmer, Pesisir Selatan, West Sumatera, Indonesia

Before joining eFishery, Mr. Osyan struggled to secure funding for feed. However, since participating in the Kabayan program, he has found significant support. As a result, Mr. Osyan has expanded his operations from 7 ponds to 14, demonstrating the positive impact of the program on his business.



Haidirsyah Karo-Karo
Fish Farmers, Serdang Bedagai, North Sumatra

When he first joined the Kabayan program, he had just 13 ponds. Since then, he has expanded his operations to 30 ponds.



Usep Sanjaya
Fish farmer, Pringsewu

He benefited immensely from access to financial institutions registered and supervised by OJK through eFishery. This support enabled him to fill all his ponds without any obstacles. With this access, he expanded his operations from 5 to 10 ponds, a leap he wouldn't have dared to take without eFishery's assistance.



Hot Parlindungan Purba
Fish Farmer, Silalahi, North Sumatra

Hot Parlindungan Purba is a farmer in the Silalahi region of Lake Toba, North Sumatra. With about five years of experience, he operates 65 floating net cage (KJA) ponds, each measuring 6x6 meters, focusing on tilapia and carp fish. In addition to farming, he sells his harvest directly at the Saribudolok market and nearby areas, where the daily demand for fish can reach 1 ton. To meet this need, he also sources fish from other farmers in the Toba region.

Hot Parlindungan has not encountered any serious issues while farming in Lake Toba, although during the initial visit from the Kabayan Team, he shared that 30 of his ponds were damaged by strong currents. Initially, he had 2 ponds per row, but he has since strengthened his setup to 4 ponds per row by anchoring each pond's corners 50 meters deep. Following this experience, he became aware of eFishery and its benefits, leading him to apply for the Kabayan Jawara program. He appreciates Kabayan for providing access to better feed prices, both for cash and credit transactions.

Since joining the Kabayan program in September 2022, he has received a limit of Rp 500 million. To date, he has completed 14 transactions totaling IDR 1,202,670,761, with an average transaction value of IDR 85.9 million, and his current limit utilization is at an impressive 240%.



Masitua
Fish Farmer, Subang, West Java

"With eFishery, I can quickly access the latest information, especially about fish price trends. The Kabayan program has been incredibly helpful, making my cultivation practices safer and more secure for the future."



Darwa
Fish Farmer, Subang, West Java

He appreciates eFishery's support, which has resolved his feed shortages and boosted his optimism for the future.

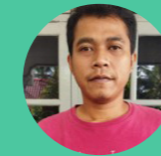


Adhi Santoso
Fish Farmer, purworejo, Central Java

Adhi Santoso is a fish farmer based in Purworejo, Central Java. With three years of experience, he operates four tilapia ponds. Initially, he could only fill 2 or 3 of these ponds due to limited funds. In addition to fish farming, Adhi works as a farm laborer and offers ceiling installation services to support his family.

Before discovering eFishery, Adhi faced challenges in purchasing fish feed, not only because of his limited budget but also due to the distance to feed suppliers. Upon learning about the Kabayan program, he eagerly joined and found it immensely helpful. He no longer worries about obtaining feed, as deliveries can now be made directly to his home, allowing him to focus more on his other work.

When he first joined Kabayan in September 2022, he was given a limit of IDR 3,000,000. From a total of 3 transactions made before upgrading, which was worth IDR. 7,249,690 and utilities of 241%. Currently, he has been given a limit increase in March 2023 to IDR 25,000,000.



Zanuvar Hastanto
Fish Farmer, Yogyakarta

Zanuvar Nursid Hastanto is a farmer in the Kulon Progo area, Yogyakarta. He has been farming for about five years and has 20 earthen-type ponds with tarp and his commodity is catfish. At the beginning of the Kabayan application, he only had 10 pond and started to increase to 20 pond after becoming Kabayan farmers.

Zanuvar has joined Kabayan Farmers since November 2021 and upgraded his limit (top-up) once. In the first upgrade submission, farmers got IDR 15 million in the limit, then in February 2023, he submitted another limit upgrade to IDR 35 million.

Until now, Zanuvar has made 36 transactions worth IDR 180,571,080 with an average value per transaction before upgrading of IDR 4 million and after upgrading to IDR 5 million, and the utilization limit so far is 515%.



Didin Wardiman
Fish Farmer, Ciamis, West Java

Didin Wardiman is a fish farmer based in the Ciamis area of West Java. Since starting his fish farming journey in 2016, he has specialized in catfish.

At the time he applied for Kabayan, Didin operated 150 ponds, with 70 dedicated to rearing and 80 for breeding, achieving a total turnover of IDR 840 million per cycle. After collaborating with eFishery through Kabayan and other products, Didin experienced significant growth, expanding to 173 ponds—86 for rearing and 87 for breeding—resulting in a turnover of IDR 1.06 billion per cycle. Recognizing the benefits of Kabayan over the past year, Didin has since proposed an additional funding limit to further support his capacity expansion and pond additions.



Ucok Setiawan
Fish Farmer, Maros, South Sulawesi

Ucok Setiawan is a fish farmer in the Maros area of South Sulawesi, where he has been operating for 9 years with 10 tilapia ponds. In addition to fish farming, Ucok is launching a new venture as a fish supplier and serves as a Key Farmer in his community.

Like many farmers, Ucok initially struggled to secure capital for purchasing feed, which disrupted his cash flow. However, after partnering with eFishery, he was able to manage his finances more effectively and no longer worries about sourcing feed. He noted that the funds previously allocated for feed can now be redirected to other essential needs, allowing him to increase his production capacity without the fear of running out of supplies.

Ucok has been a Kabayan farmer since March 2022 and has been given a limit increase twice. His initial limit was 79 million, then in November 2022 it increased to 99 million and in March 2023 it increased to 198 million. Of the total 31 transactions that have been carried out, it is worth IDR 400,773,486 with an average transaction of 12.9 million and a utility of 202%.

Growing ponds

	Zanuar Nursid Hastanto Fish Farmer, Yogyakarta	Hot Parlindungan Purba Fish Farmer, Silalahi, North Sumatra
Ponds before & after joining eFishery	10 → 20	60 → 65
Total feed sack @20kg	120 → 140	4980 → 5395
Density (ind)	3000 → 5000	10000
Yield kg per pond	300 → 500	2100 → 3200

	Osyang Effendi, Fish Farmer, Pesisir Selatan, West Sumatera	Haidirsyah Karo-Karo Fish Farmers, Serdang Bedagai, North Sumatra
Ponds before & after joining eFishery	7 → 14	13 → 30
Total feed sack @20kg	35 → 70	520 → 1120
Density (ind)	2000 → 3000	15000
Yield kg per pond	400 → 600	1400 → 1500





Call to Action Grow and collaborate with eFishery

We invite you to join forces with eFishery to drive transformative change in aquaculture through strategic partnerships. By investing in our innovative solutions or providing impact investment, sharing resources, co-funding, or grants, you can help scale up sustainable aquaculture practices that benefit farmers, communities, and the environment. Your support will enable us to leverage cutting-edge technology and financial expertise to address critical global challenges and promote sustainable livelihoods in aquaculture. Partnering with eFishery offers a unique opportunity to make a significant impact in the aquaculture sector while aligning with your own strategic goals. Together, we can create lasting value, drive positive social and environmental outcomes, and lead the way towards a more resilient and prosperous future for all. We look forward to exploring how we can work together to achieve these shared objectives and build a brighter, more sustainable world.

Investing in green and social initiatives with eFishery is not just a financial decision; it's a commitment to sustainable and inclusive growth in the aquaculture industry. By supporting this initiative, you are not only contributing to the advancement of environmentally friendly technologies and practices but also empowering smallholder fish and shrimp farmers with the resources and tools they need to thrive. Your investment fuels our capacity to secure essential supplies, enhance the livelihoods of farmers, and ensure a sustainable food supply chain.

Join us in making a tangible impact on the environment and the livelihoods of countless farmers by investing in a sustainable and inclusive aquaculture industry.



Appendix

Executive Committee Approval Sheet on the 2023 Sustainability Report of eFishery on POJK No. 51/POJK.03/2017

(G4)

We as the Executive Committee of eFishery, the undersigned, declare that all information in the 2023 eFishery Sustainability Report has been submitted completely and take full responsibility for the correctness of the contents of the Sustainability Report with reference to POJK No. 51/POJK.03/2017. Thus, this consent form is made in truth.

Jakarta, 1 October 2024,



Gibran Huzaifah Amsi El-Farizy, CEO, Co-Founder

Executive Committee and Department Leaders

Chrisna Aditya Wardani | Caecilia Adinoto | Andri Yadi | Erwina Tobing | Mazlan Hashim | Junandar Panggabean | Kristin Veriga | Diajeng Reisa | Cita Rezkiani | Putu Gede Suadyana | Muhammad Chairil | Cameron Maclean



Sustainalytics sustainable finance framework statement summarized from second party opinion

Second-Party Opinion eFishery Sustainable Finance Framework

Evaluation Summary

Sustainalytics is of the opinion that the eFishery Sustainable Finance Framework is credible, impactful and aligned with the Sustainability Bond Guidelines 2021, Green Bond Principles 2021, Social Bond Principles 2023, Green Loan Principles 2023 and Social Loan Principles 2023. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds¹ are aligned with those recognized by the Green Bond Principles, Social Bond Principles, Green Loan Principles and Social Loan Principles. Sustainalytics considers that investments in the eligible categories will lead to positive environmental or social impacts and advance the UN Sustainable Development Goals, specifically SDGs 7, 9, 10, 12 and 14.



PROJECT EVALUATION AND SELECTION eFishery has in place a Sustainability Committee, which comprises the Head of Sustainability along with the Vice Presidents of other leading departments, such as Fish Value Chain, Shrimp Value Chain, Feeder and AIOT². The Sustainability Committee is responsible for selecting eligible projects and assets in line with the Framework's eligibility criteria. The Sustainability Committee also assesses potential negative environmental and social impacts associated with the financed projects and assets. Based on the described projects evaluation and E&S risk assessment processes, Sustainalytics considers this process to be in line with market practice.



MANAGEMENT OF PROCEEDS eFishery will maintain a Sustainable Financing Register, which will be reviewed annually by the Sustainability Committee. eFishery intends to allocate all proceeds within 36 months of issuance. Pending allocation, eFishery will invest the unallocated proceeds in cash, cash equivalents or other short-term investments. These may include labelled green deposits or other short-term investments with a clear sustainable purpose. Based on these characteristics, Sustainalytics considers this process to be in line with market practice.



REPORTING eFishery commits to report on the allocation and impacts of proceeds in the annual Sustainable Financing Report, which will be available on the Company's website or made available to the relevant lenders for private transactions. The allocation report will include a list of financed and refinanced assets and the amount of proceeds allocated to the eligible assets. In addition, eFishery intends to report on impact metrics, where relevant. Based on eFishery's commitment to allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

¹ Alternate Energy, Energy Efficiency and Renewable Energy; Environmentally Sustainable Management of Living Natural Resources and Land Use; Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes; Food Security and Sustainable Food Systems; and Socio-Economic Advancement and Empowerment
² Artificial Intelligence and Internet of Things



Evaluation Date	February 23, 2023
Issuer Location	Jakarta, Indonesia

Report Sections

Introduction.....	2
Sustainalytics' Opinion.....	3
Disclaimer.....	9

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Introduction

eFishery (“eFishery” or the “Company”) provides technology solutions to fish and shrimp farmers in Indonesia. eFishery product and services include automatic fish feeders, feed distribution hubs and a platform for buying and selling fish from smallholder fish farmers in Indonesia. Established in 2013, the Company has nearly 2,000 employees.

eFishery has developed the eFishery Sustainable Finance Framework, dated February 2024, (the “Framework”), under which it intends to issue sustainability bonds and loans and use the proceeds to finance or refinance, in whole or in part, existing or future projects that improve the environmental and socio-economic conditions of fish farms in Indonesia. The Framework defines eligibility criteria in five areas:

1. Alternative Energy, Energy Efficiency and Renewable Energy
2. Environmentally Sustainable Management of Living Natural Resources and Land Use
 1. Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes
 2. Food Security and Sustainable Food Systems
 3. Socioeconomic Advancement and Empowerment

eFishery engaged Sustainalytics to review the Framework and provide a Second-Party Opinion on the Framework’s environmental and social credentials and its alignment with the Sustainability Bond Guidelines 2021 (SBG), Green Bond Principles 2021 (GBP), Social Bond Principles 2023 (SBP),³ Green Loan Principles 2023 (GLP) and Social Loan Principles 2023 (SLP).⁴ The Framework has been published in a separate document.⁵

Scope of work and limitations of Sustainalytics’ Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics’ independent⁶ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible project categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Sustainability Bond Guidelines 2021, Green Bond Principles 2021, and Social Bond Principles 2023, as administered by ICMA, and the Green Loan Principles 2023 and Social Loan Principles 2023, as administered by LMA, APLMA, and LSTA;
- The credibility and anticipated positive impacts of the use of proceeds; and
- The alignment of the issuer’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.15, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of eFishery’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. eFishery representatives have confirmed (1) they understand it is the sole responsibility of eFishery to ensure that the information provided is complete, accurate and up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

³ The Sustainability Bond Guidelines, Green Bond Principles, and Social Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/>

⁴ The Green Loan Principles and Social Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association and are available at: <https://www.lsta.org/content/green-loan-principles/#> and <https://www.lsta.org/content/social-loan-principles-slp/>

⁵ The eFishery Sustainable Finance Framework is available on eFishery’s website at: <https://efishery.com/en/>

⁶ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and eFishery.

Sustainalytics’ Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics’ Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond and loan proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the potential allocation of proceeds but does not guarantee the realised allocation of the bond and loan proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that eFishery has made available to Sustainalytics for the purpose of this Second-Party Opinion

Sustainalytics’ Opinion

Section 1: Sustainalytics’ Opinion on the eFishery Sustainable Finance Framework

Sustainalytics is of the opinion that the eFishery Sustainable Finance Framework is credible and impactful and aligns with the four core components of the GBP, SBP, GLP and SLP. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
 - The eligible categories – Alternative Energy, Energy Efficiency and Renewable Energy; Environmentally Sustainable Management of Living Natural Resources and Land Use; Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes; Food Security and Sustainable Food Systems; and Socioeconomic Advancement and Empowerment – are aligned with those recognized by the GBP, SBP, GLP and SLP.
 - eFishery has defined a look-back period of 36 months for refinancing activities as per the eligibility criteria under the Framework, which Sustainalytics considers to be in line with market practice.
 - Under Alternative Energy, Energy Efficiency and Renewable Energy, eFishery may finance updating the eFeeders with renewable energy facilities. These may include procurement of solar panels for the eFeeders. The eFeeder is an automatic feeding system that uses various sensors to determine the optimal time and amount of feed to be given to fish and shrimp. Sustainalytics considers investments under this category to be aligned with market practice.
 - Under Environmentally Sustainable Management of Living Natural Resources and Land Use, eFishery may finance or refinance the research and development of eFeeders to improve optimal fish feed distribution⁷, which reduces the excess fish feed, thus leading to reduced water contamination due to inefficient feeding cycles. Sustainalytics considers investments under this category to be aligned with market practice.
 - Under Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes, eFishery may finance or refinance :
 - fish and shrimp farms that have been certified with Aquaculture Stewardship Council (ASC)⁸ certification and Best Aquaculture Practices (BAP)⁹ certification level 2 or above for aquaculture farms
 - Projects towards upgrade of facilities to help them achieve ASC certification
 - Sustainalytics considers investments under this category to be aligned with market practice.

⁷ eFishery has communicated that the average food conversion ratio (FCR) before eFeeder lies between 1.3 – 1.8 while the eFeeder enhances the ratio to 1.09. FCR is the conventional measure of livestock production efficiency which is defined by the weight of feed intake divided by weight gained by the animal. Lower FCR values indicate higher efficiency.

⁸ Aquaculture Stewardship Council (ASC): <https://asc-aqua.org/>

⁹ Best Aquaculture Practices (BAP): <https://www.bapcertification.org/>

- Under Food Security and Sustainable Food Systems, eFishery may invest in R&D aimed at creating resilience in aquacultural practices, reduction of food loss and waste and improvement of productivity of small-scale fish farmers. Sustainalytics notes that eFishery defines small-scale farmers in line with the Asian Development Bank's definition of micro and small enterprises.^{10,11} eFishery may also invest in expanding eFishery hubs (ePoints), which will have storage facilities to improve food conservation for the small-scale farmers. The ePoints are also expected to increase market access to the small-scale farmers. Sustainalytics considers the investment to be impactful and notes the following:
 - R&D investments may include the following expenditures: i) developing technologies to enhance the storage facilities in the ePoints to improve shelf life of fish or shrimp; ii) increasing storage capacities to accommodate more fish or shrimp.
- Under Socioeconomic Advancement and Empowerment, eFishery may finance programmes in the aquaculture sector to support small-scale farmers, including:
 - Programmes or facilities that provide opportunities for farmers to gain relevant skills and knowledge for more efficient agricultural practices. Sustainalytics notes that such services would be free of cost. Example programmes and facilities include:
 - Sustainable farming practice training programmes
 - Courses and curriculum for farmers to develop farming skills
 - Mobile application to share farming knowledge between small-scale farmers
 - eFishery may use the proceeds as working capital to provide farming assistance to small-scale farmers in the following way:
 - eFishery may provide competitive input cost for feed and vitamins, which are at least 10% cheaper than purchasing the feed from a local agent.
 - eFishery may act as the off-taker for the small-scale farmers' fish and shrimp by providing 20% better rates than regular buyers.
 - Provision of eFeeders to small-scale farmers to assist in increased production capacity, productivity and efficiency. Sustainalytics notes that eFishery will procure the eFeeders and provide them to small-scale farmers on a month-by-month basis at USD 10-15 per month which is 5% of the monthly cost of farming.
 - Sustainalytics is of the opinion that such investments are expected to enhance access to financial services for small-scale farmers and therefore views these investments as socially impactful.
 - Sustainalytics notes that the projects and programmes under this category are intended to bring socio-economic advancement and empowerment for the target population and create positive social impacts.
- The Framework's exclusionary list¹² precludes activities that have potential negative environmental or social impacts from its green, social and sustainability financing. Sustainalytics views the exclusionary list as further strengthening eFishery's Framework.
- Project Evaluation and Selection:
 - eFishery has in place a Sustainability Committee (the "Committee"), which comprises the Head of Sustainability and the Vice Presidents of other leading departments, such as Fish Value Chain, Shrimp Value Chain, Feeder and Artificial Intelligence and Internet of Things. The Committee is responsible for selecting eligible projects and assets in line with the Framework's eligibility criteria.
 - The Committee also assesses and manages potential negative environmental and social impacts associated with the financed projects and assets.
 - Based on the described project's evaluation and E&S risk assessment processes, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - eFishery will maintain a Sustainable Financing Register, which will be reviewed annually by the Committee. The register will be used to track the allocation of proceeds and the remainder of the unallocated proceeds.

¹⁰ A micro enterprise is a productive enterprise owned by individuals and/or a business entity or enterprise, with net assets less than IDR 50 million (USD 3,210).

ADB Data Library, "2023 Asia Small and Medium-Sized Enterprise Monitor: Indonesia", at: <https://data.adb.org/dataset/2023-asia-small-and-medium-sized-enterprise-monitor>

¹¹ A small enterprise is an independent productive enterprise run by individuals or a company that is not owned, controlled or a direct or indirect part of a medium or large enterprise, with net assets between IDR 50 million (USD 3,210) and IDR 500 million (USD 32,108).

ADB Data Library, "2023 Asia Small and Medium-Sized Enterprise Monitor: Indonesia", at: <https://data.adb.org/dataset/2023-asia-small-and-medium-sized-enterprise-monitor>

¹² The Framework lists the following exclusionary activities: i) Manufacture or wholesale retail of alcoholic beverages; ii) Manufacture or wholesale retail of tobacco products; iii) Ownership or operation of gambling enterprises; iv) Manufacture or retail sale and distribution of weapons and small arms; v) Transportation of live cattle; vi) Whaling; vii) Predatory lending activities; viii) Production or refining of palm oil; ix) Extraction or refining of fossil fuels and x) Transmission infrastructure and systems where 25% or more of electricity transmitted to the grid is fossil-fuel-generated

- eFishery intends to allocate all proceeds within 36 months of issuance. Pending allocation, eFishery will invest the unallocated proceeds in cash, cash equivalents or other short-term investments.¹³ These may include labelled green deposits or other short-term investments with a clear sustainable purpose.
- eFishery has communicated to Sustainalytics that instruments issued under the Framework may include multi-tranche loan facilities. eFishery intends to label only those tranches of such facilities whose proceeds will be allocated according to the eligibility criteria in the Framework.
- Based on these characteristics, Sustainalytics considers this process to be in line with market practice.
- Reporting:
 - eFishery commits to report on the allocation of proceeds in the Company's annual Sustainable Financing Report (the "Annual Report"), which will be available on the Company's website or made available to the relevant lenders for private transactions. eFishery shall also report on the impacts of the proceeds, where possible, in the Sustainable Financing Report.
 - eFishery has communicated to Sustainalytics that if it obtains revolving credit facilities under the Framework, it will report on allocation until loan maturity.
 - The allocation report will include a list of financed and refinanced assets and the amount of proceeds allocated to the eligible assets.
 - In addition, eFishery intends to report on impact metrics, where relevant, such as the increase in farmers' incomes after joining eFishery's ecosystem and using eFishery's products, the improvement of the Food Conversion Rate (FCR), increase in production capacity from farmers in the eFishery's ecosystem, improvement in harvest cycle and the rate of the harvest cycle, increase in survival rate from the Disease Prevention System (DPS), increase in number of farmers gaining access to financing and total loans disbursed from Otoritas Jasa Keuangan (OJK) regulated Financial Institutions,¹⁴ number of jobs created in rural areas of Indonesia, percent of shrimp certified by ASC, percent of power generated from renewable sources and reduction of nutrient runoff from overfeeding.
 - Based on eFishery's commitment to allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

Alignment with Sustainability Bond Guidelines 2021

Sustainalytics has determined that the eFishery Sustainable Finance Framework aligns with the four core components of the GBP, SBP, GLP and SLP.

Section 2: Sustainability Performance of eFishery¹⁵

Contribution to eFishery's sustainability performance

Sustainalytics is of the opinion that eFishery demonstrates a commitment to sustainability by adopting technology to improve the livelihood, business and productivity of fish farmers and by providing equal access to registered and OJK-supervised financial institutions.¹⁶

eFishery has built an end-to-end ecosystem for fish farmers, enabling them to get access to increased financing. With eFishery's Kabayan Program, fish farmers can gain access to financial support for up to IDR 45 million (USD 2,890) per person. By January 2023, at least 15,000 fish farmers had benefited from the programme, with a total of IDR 692.4 billion (USD 44.5 million).

Sustainalytics notes that eFishery currently does not have any public disclosures of its sustainability strategy. Nevertheless, Sustainalytics is of the opinion that the eFishery Sustainable Finance Framework is aligned with the Company's overall sustainability vision and initiatives and will further the Company's action on its key sustainability priorities, and encourages eFishery to establish a sustainability plan and strategy and time-bound quantitative sustainability targets where feasible to further strengthen its sustainability commitments.

¹³ eFishery has confirmed that these investments will not include any activity listed on the exclusionary list nor GHG-intensive projects that are inconsistent with the delivery of a low-carbon and climate-resilient economy.

¹⁴ OJK, "Regulation of the Financial Services Authority", (2013), at:

[https://www.ojk.go.id/en/kanal/edukasi-dan-perlindungankonsumen/regulasi/peraturan-ojk/Documents/Pages/OJK-Regulation-Concerning-Consumer-Protection-in-Financial-ServicesSector/POJK%20PK%202013%20\(1\)_EN\(3\).pdf](https://www.ojk.go.id/en/kanal/edukasi-dan-perlindungankonsumen/regulasi/peraturan-ojk/Documents/Pages/OJK-Regulation-Concerning-Consumer-Protection-in-Financial-ServicesSector/POJK%20PK%202013%20(1)_EN(3).pdf)

¹⁵ Owing to a lack of publicly available data, Sustainalytics has used the information that has been confidentially shared by eFishery.

¹⁶ Firms that the OJK regulates include banks, asset managers, brokers, financial advisers, pension funds, insurance companies and multi-finance companies. The OJK has also regulated financial technology companies operating in the financial services space (e.g., P2P lending platform operators). Source: <https://resourcehub.bakermckenzie.com/en/resources/global-financial-services-regulatory-guide/asia-pacific/indonesia/topics/who-regulates-banking-and-financial-services-in-your-jurisdiction>

Approach to managing environmental and social risks associated with the projects

Sustainalytics recognizes that the proceeds from the instruments issued under the Framework will be directed towards eligible projects that are expected to have positive environmental and social impacts. However, Sustainalytics is aware that such eligible projects could also lead to negative environmental and social outcomes. Some key environmental and social risks possibly associated with the eligible projects may include issues involving disposal of faulty components, aquaculture worker safety, community relations and inappropriate trade practices.

Sustainalytics is of the opinion that eFishery is able to manage or mitigate potential risks through implementation of the following:

- eFishery is responsible for the full maintenance of the eFeeders. The Company ensures that the new eFeeders have recycled parts from old eFeeders. For the disposal of faulty components or old feeders, eFishery has contracts with third-party vendors who ensure the recycling of the faulty, old components.
- eFishery implements measures to safeguard its employees and small-scale fish farmers who use the eFeeders. These measures include providing safety training, establishing safety protocols, distributing personal protective equipment, closely monitoring worker health and safety and fostering a culture of safety in the organization. eFishery also recognizes the unique hazards associated with aquaculture operations and has implemented specific measures to address these risks, including providing training on safe boat operation, establishing procedures for working safely in confined spaces, offering training on the safe handling of chemicals and maintaining procedures for reporting and investigating accidents and injuries.
- eFishery's mobile app, eFisheryKu¹⁷ has a grievance addressal mechanism in place, through which farmers can voice their concerns. Throughout the engagement process, farmers are provided support from feed financing until harvest uptake, as well as training on best practices.
- eFishery has partnered with regulated financial institutions to provide farmers with access to financing options that enable farmers to invest in essential inputs and technologies, such as feed and vitamins, at a lower cost compared to traditional market rates. This cost reduction directly translates into increased profitability for farmers, allowing them to reinvest in their operations and expand their aquaculture businesses. Further enhancing farmers' financial well-being, eFishery acts as an off-taker for farmers' produce, offering better prices compared to traditional buyers.

Based on the above, Sustainalytics is of the opinion that eFishery has implemented adequate measures and is well positioned to manage and mitigate social risks commonly associated with the eligible categories. Additionally, Sustainalytics encourages eFishery to publicly disclose the prevalent risk mitigation measures for enhanced transparency.

Section 3: Impact of Use of Proceeds

All five use of proceeds categories are aligned with those recognized by the GBP, SBP, GLP and SLP. Sustainalytics has focused on where the impact is specifically relevant in the local context.

Importance of sustainable aquaculture

Globally, aquaculture production is predicted to increase by 32%, from 26 million tonnes in 2018 to 109 million tonnes in 2030.¹⁸ Aquaculture's growth is significant in future food supply since the sector has great potential to meet growing food demands.¹⁹ The South, Southeast and East Asian regions, have collectively produced 88% of global aquaculture as of 2021. Additionally, small-scale enterprises have contributed to this produce by over 80%.²⁰ Thus, given their strategic geographical position, the South, Southeast and East Asian regions have potential to contribute to significant aquaculture growth. Among these countries, Indonesia, is the largest archipelagic country in the world, with one of the highest aquaculture production rates globally.²¹ Aquaculture contributed to 68.4% of Indonesia's total fishery production until 2019, with an average growth

¹⁷ eFishery, "From Purchasing Feed to Selling Fish, All in One App", at: <https://efishery.com/en/solutions/efish/efisheryku/>
¹⁸ World Economic Forum, "Building a Global Roadmap for Sustainable Aquaculture Growth", at: https://www3.weforum.org/docs/WEF_Global_Roadmap_for_Sustainable_Aquaculture_Growth_Evidence_Base_Paper_2022.pdf
¹⁹ World Economic Forum, "4 ways to ensure the future of aquaculture is sustainable", at: <https://www.weforum.org/agenda/2023/03/4-ways-to-ensure-the-future-of-aquaculture-is-sustainable/>
²⁰ Food and Agriculture Organization of the United Nations, "The State of World Fisheries and Aquaculture 2022: Intensifying and Expanding Sustainable Aquaculture Production", at: <https://www.fao.org/3/cc0461en/online/sofia/2022/expanding-sustainable-aquaculture-production.html>
²¹ Statista, "Leading aquaculture producing countries worldwide in 2020 (in 1,000 metric tons)", at: <https://www.statista.com/statistics/272312/aquaculture-production-by-country/>

of 16% per year between 2000 and 2019.²² Its share in Indonesia's GDP amounted to nearly 3% as of 2021.²³ The archipelagic state currently utilizes only 1.3 million hectares for aquaculture out of a potential 17.9 million hectares.²⁴ The Indonesian government has targeted an expansion of aquaculture by 12 million hectares by 2030.²⁵

While aquaculture's growth is of great significance, it is also important to ensure that the growth is sustainable as unsustainable aquaculture practices could impact the biodiversity of oceans and the habitats of wild fish populations.²⁶ With sustainable aquaculture, there is focus on environmental, economic and social sustainability which can improve capacity building and effective utilization of land.²⁷ This is key to ensure the long-term sustainability of seafood production and maintain the ecological balance of the oceans.²⁸ Hence, it is necessary for Indonesia to ensure its aquaculture sector's sustainability by taking actions that focus on environmental, economic and social aspects.²⁹

Based on this context, Sustainalytics notes that by financing eligible projects under the Framework, eFishery's activities will make important contributions towards sustainable aquaculture in Indonesia.

Contribution to SDGs

The Sustainable Development Goals were adopted in September 2015 by the United Nations General Assembly and form part of an agenda for achieving sustainable development by 2030. The instruments issued under the eFishery Sustainable Finance Framework are expected to help advance the following SDGs and targets:

Use of Proceeds Category	SDG	SDG target
Renewable Energy	7. Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
Environmentally Sustainable Management of Living Natural Resources and Land Use	9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes	14. Life Below Water	14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
Food Security and Sustainable Food Systems	12. Responsible Consumption and Production	12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

²² Putra, A. (2023), "Supporting the Aquaculture of the World's Largest Archipelago (Indonesia)", Aquaculture Magazine, at: <https://aquaculturemag.com/2023/01/16/supporting-the-aquaculture-of-the-worlds-largest-archipelago-indonesia/>
²³ Statista, "Contribution of fisheries to the gross domestic product (GDP) in Indonesia from 2014 to 2021", at: <https://www.statista.com/statistics/1083946/indonesia-fisheries-contribution-to-gdp/>
²⁴ Ibid.
²⁵ Walton Family Foundation, "Investment Guideline for Sustainable Aquaculture in Indonesia", (2018), at: <https://www.idhsustainabletrade.com/uploaded/2018/12/Aquaculture-Summary-4.6-WEB.pdf>
²⁶ World Economic Forum, "4 ways to ensure the future of aquaculture is sustainable", at: <https://www.weforum.org/agenda/2023/03/4-ways-to-ensure-the-future-of-aquaculture-is-sustainable/>
²⁷ Peter, O. (2023), "Sustainable Aquaculture: Why is it the need of the hour?", Organica Biotech, at: <https://organicabiotech.com/sustainable-aquaculture-why-is-it-the-need-of-the-hour/#:~:text=Sustainable%20aquaculture%20practices%20can%20help.and%20resilient%20food%20production%20system.>
²⁸ Ibid.
²⁹ Ibid.

	14. Life below water	14.b Provide access for small-scale artisanal fisheries to marine resources and markets
Socio-Economic Advancement	9. Industry, Innovation and Infrastructure	9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
	10. Reduced Inequalities	10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average

Conclusion

eFishery has developed the eFishery Sustainable Finance Framework, under which it intends issue green, social and sustainability bonds and loans and use the proceeds to finance or refinance, in whole or in part, existing or future projects that are expected to deliver positive environmental and social outcomes in Indonesia.

The eFishery Sustainable Finance Framework outlines a process for tracking, allocation and management of proceeds, and makes commitments for reporting on allocation and impact. Sustainalytics considers that the eFishery Sustainable Finance Framework is aligned with the overall sustainability performance of the Company and that the use of proceeds will contribute to the advancement of UN Sustainable Development Goals 7, 9, 10, 12 and 14. Additionally, Sustainalytics is of the opinion that eFishery has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects.

Based on the above, Sustainalytics is of the opinion that eFishery is adequately positioned to issue green, social and sustainability bonds and loans and that the eFishery Sustainable Finance Framework is robust, transparent and in alignment with the four core components of the Sustainability Bond Guidelines 2021, Green Bond Principles 2021, Social Bond Principles 2023, Green Loan Principles 2023 and Social Loan Principles 2023.

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The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

About Sustainalytics, a Morningstar Company

Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. For more than 30 years, the firm has been at the forefront of developing high-quality, innovative solutions to meet the evolving needs of global investors. Today, Sustainalytics works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. Sustainalytics also works with hundreds of companies and their financial intermediaries to help them consider sustainability in policies, practices and capital projects. With 17 offices globally, Sustainalytics has more than 1500 staff members, including more than 500 analysts with varied multidisciplinary expertise across more than 40 industry groups.

For more information, visit www.sustainalytics.com

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SFDR Aquaspark Declaration Letter

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DECLARATIONS BY PORTFOLIO COMPANY EFISHERY

We, eFishery, hereby acknowledge and confirm that, as per 31 December 2023, we have taken notice of and, to the extent applicable to us, will adhere to the following principles and guidelines.

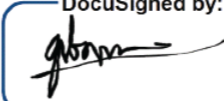
The portfolio company will follow good governance practices, in particular with respect to sound management structures, employee relations, remuneration of staff and tax compliance.

The portfolio company's activities will not significantly harm any of the environmental objectives: (a) climate change mitigation; (b) climate change adaptation; (c) the sustainable use and protection of water and marine resources; (d) the transition to a circular economy; (e) pollution prevention and control; and/or (f) the protection and restoration of biodiversity and ecosystems (*do not significant harm principle*).

The portfolio company will comply with the:

- OECD Guidelines for Multinational Enterprises;
- UN Guiding Principles on Business and Human Rights;
- UN Global Compact;
- UN Environment Programme Finance Initiative (UNEP FI);
- ILO Declaration on Fundamental Rights and Principles at Work; and
- International Bill of Human Rights.

The portfolio company hereby declares that for the year 2023, and preceding years, no known breaches and/or violations of any of the above-mentioned principles and guidelines have occurred.

DocuSigned by:

 44EBBA80115F4EC...

PORTFOLIO COMPANY EFISHERY

signed on 8 May 2024
 by Gibran Chuzaefah Amsi El Farizy



Statement of Work

To: PT Multidaya Teknologi Nusantara, PT Teknologi Untuk Pembudidaya, PT eFishery Aquaculture Indonesia] [(a company incorporated in Jl. Malabar No.37 RT 01 RW 01, Samoja, Kec. Batununggal, Kota Bandung, Jawa Barat 40262

From: Economics and Business Research and Training Unit (P2EB), Gadjah Mada University

Date: 30 August 2024

This Statement of Work outlines the scope of tasks undertaken by the Economics and Business Research and Training Unit (P2EB) to assist eFishery in developing its Sustainability and Impact Report.

As consultants, the P2EB has assisted the Double Materiality Assessment and Standard Review in eFishery's Sustainability Report disclosure requirement using guidelines from the Global Reporting Initiative (GRI), International Financial Reporting Standards Sustainability 1 and 2 (IFRS S1 and IFRS S2), and the Sustainable Development Goals (SDGs). The information covers various operational aspects and performance metrics related to sustainability topics, including environmental impact, social responsibility, and corporate governance. It combines internal data with publicly available and officially published information from eFishery's website up to December 2023, ensuring a reflection of eFishery's commitment to sustainable and responsible business practices. However, developing eFishery's sustainable finance framework, as mentioned in the sustainable finance disclosure section, is not part of scope of work and remains the sole responsibility of eFishery.

A Double Materiality Assessment (DMA) was conducted to identify key sustainability topics for eFishery and its stakeholders. This assessment analyzed the impact of environmental and social factors from both an "inside-out" and an "outside-in" perspective. The assessment was carried out using a survey, with the survey instrument developed by UGM and distributed by eFishery's enumerators. The survey was based on materiality topics outlined in GRI 13 for the Agriculture, Aquaculture, and Fishing Sectors. A total of 137 responses were collected and analyzed to identify the most significant material topics. The assessment engaged a diverse range of internal and external stakeholders, including farmers, investors, lenders, government entities, non-profit organizations, and community groups, selected by eFishery. The findings from this assessment highlighted key critical topics that eFishery needs to address in its medium and long-term sustainability framework. Key initiatives and product developments related to sustainability initiatives are disclosed by eFishery under "Our Impact". eFishery's map on key sustainability initiatives provides a comprehensive overview of the company's sustainability efforts and progress across its operations. The map is developed by eFishery's sustainability team, while we, as consultants, contribute by reviewing eFishery's sustainability strategy for 2023-2060, which focuses on three main areas: Tech-Enabled Sustainable Aquaculture, Biodiversity and Climate Action, and Thriving Communities. A limited summary of financial accounts was provided by eFishery to confirm eFishery's performance and activities in the last three years related to employee, provider of capital, and government while a full audited financial statement was not included.

The validity and accuracy of the information used as a reference in the preparation of the Sustainability Report and Impact Report fall outside the purview and responsibility of P2EB, which, in this context, serves as the report consultant rather than an external assessor. If the data validation process by an independent third party has not been conducted, then the validity of the information used remains the sole responsibility of eFishery as the single information provider. Ensuring the accuracy and credibility of the data is crucial to guaranteeing that all information presented in the report is accurate and reliable for all stakeholders.

We are committed to providing the highest level of support in the preparation of eFishery's sustainability and impact report and hope that this report will add significant value to eFishery in its efforts to achieve sustainability and social responsibility goals. Equally important, transparency and accountability are key to building trust with stakeholders and supporting eFishery's sustainable growth in the future.



Dr. Evi Noor Afifah | Arika Artiningsih, Ph.D., CFE | Diny Ghuzini, Ph.D | Iqbal Natakusumah, S.E | Nila Fatimah, S.E., M.Sc. Economics and Business Research and Training Unit (P2EB), Gadjah Mada University

Statement of Work

To: PT Multidaya Teknologi Nusantara, PT Teknologi Untuk Pembudidaya, PT eFishery Aquaculture Indonesia] [(a company incorporated in I. Malabar No.37 RT 01 RW 01, Samoja, Kec. Batununggal, Kota Bandung, Jawa Barat 40262, with limited liability

From: Center of Center of Governance, Environmental, Social and Governance Studies (CEGSS), Airlangga University.

Date 30 August 2024

This Statement of Work (SOW) outlines the scope of activities conducted by CEGSS for eFishery. Comprehensive risk and needs assessments were conducted internally to analyze ESG risks based on established sustainability standards. Following this, an external early assessment and benchmarking was performed by CEGSS to evaluate eFishery's alignment with these standards and overall performance.

The initial assessment involved a detailed review against four primary sustainability standards: GRI (Global Reporting Initiative), SASB (Sustainability Accounting Standards Board), Sustainalytics, and MSCI, completed between January and May 2024. The early assessment covered sectors such as Food Products, Software and Services, and Food Retailers. The benchmarking analysis was conducted comparing eFishery to several leading companies to identify performance gaps and improvement actions required.

The assessment and benchmarking process resulted in the identification of key material topics, which are outlined as follows:

Environment	Social	Governance
<ul style="list-style-type: none"> Energy Carbon - own operation Water and effluents Opportunities in clean tech Waste Animal health and welfare Biodiversity Environmental footprint of hardware infrastructure 	<ul style="list-style-type: none"> Product quality and safety Human capital development Customer health and safety Local communities Food security Land and resource right Diversity and equal opportunity Non discrimination Child labor Freedom of association and collective bargaining Occupational health and safety Employment practices Recruiting and managing a global, diverse and skilled workforce Health and nutrition Living income and living wage 	<ul style="list-style-type: none"> Anti competitive behavior Supply chain management Data privacy and security Business ethics Systemic risk management Corporate governance Economic performance Economic inclusion Supply chain traceability Anti corruption Data privacy and freedom of expression

This SOW details the ongoing efforts and findings from CEGSS to support eFishery in enhancing its sustainability practices and reporting standards.



Prof. Iman Harymawan, SE., MBA., Ph.D. CEO, Center of Center of Governance, Environmental, Social and Governance Studies (CEGSS), Airlangga University

Index per POJK No. 51/POJK/03/2017 References

Code	Principle	Description	Page
A1	Sustainability Strategy	Elaboration on Sustainability Strategy	37-41
B1	Summary of Sustainability Aspect Performance	Economic Aspects	45-46 51-66
B2		Environmental Aspects	45-46,67-72, 125-138
B3		Social Aspects	45-46, 147-150
C1	Summary of Sustainability Aspect Performance	Vision, Mission, and Values of Sustainability	21-22
C2		Company's Address	59-60
C3		Enterprise Scale	62
C4		Products, Services, and Business Activities	72-96, 109-112
C5		Membership in Association	187
C6		Significant Changes in Issuers and Public Companies	59-60
D1	The Board of Director's Explanation	The Board of Director's Explanation	27-32
E1	Sustainability Governance	Responsible for Implementing Sustainable Finance	34, 62, Appendix Sustainalytics
E2		Competency Development Related to Sustainable Finance	62 Appendix Sustainalytics
E3		Risk Assessment of the Implementation of Sustainable Finance	37-41, 62 Appendix Sustainalytics
E4		Relations with Stakeholders	180
E5		Problems with the Implementation of Sustainable Finance	37-41, 62
F1	Sustainability Performance	Sustainable Culture Development Activities	45-46 51-66, 67-72, 147-150
F2	Economic Performance	Comparison of Targets yo Performance pf Production, Portfolio, Financing Targets, or Investments, Revenues and Profit and Loss	62
F3		Comparison of Target to Performance of Portfolio, Financing Target, or Investments In Financial Instruments or Projects in Line with the Implementation of Sustainable Finance	62
F4	Environmental Performance. General Aspects	Environmental Costs	67-72 125-138
F5	Material Aspect	Environmentally Friendly Materials Usage	72-96
F6	Energy Aspect	Amount and Intensity of Energy Used	139-140
F7		Efforts and Achievements of Energy Efficiency and Use of Renewable Energy	131-138

F8	Water Aspect	Water Usage	37-41 67-106
F9	Aspects of Biodiversity	Impacts from Operational Areas that are Near or Located in Conservation Areas or Have Biodiversity	131-138
F10		Biodiversity Conservation Efforts	131-138
F11	Emission aspect	Total and Intensity of Emissions Generated by Type	131-138
F12		Efforts and Achievements of Emission Reduction Made	131-138
F13	Waste and Effluent Aspects	Amount of Waste and Effluent Generated by Type	180-184
F14		Waste and Effluent Management Mechanism	67-68 125-144
F15		Occurring Spills (if any)	
F16	Complaint Aspects Related to the Environment	Number and Material of Environmental Complaints Received and Resolved	171-176 183
F17	Social Performance	Commitment to Provide Equal Services on Products and/or Services to Consumers	45-46 147-150
F18	Employment Aspect	Equal Employment Opportunity	155-169 182, 183
F19		Child Labor and Forced Labor	183
F20		Regional Minimum Wage	155-169
F21		Decent and Safe Work Environment	155-169
F22		Employee Capability Training and Development	157-158
F23		Community Aspect	Impact of Operations on Surrounding Communities
F24	Community Complaints		171-176 183
F25	Corporate Social Responsibility (CSR)		45-46 147-150 191-192
F26	Responsibility for Sustainable Product/Service Development	Innovation and Development of Sustainable Financial Products/Services	15-16, 39-41, 91-100, 102-106, 150-151,184
F27		Products/Services That Have Been Evaluated for Safety for Customers	15-16, 39-41, 91-100, 102-106, 184
F28		Product/Service Impact	73-96 189-190
F29		Number of Product Recalls	15-16, 39-41, 91-100, 102-106, 184
F30		Customer Satisfaction Survey on Sustainable Financial Products and/or Services	15-16, 39-41, 91-100, 102-106, 184
G1	Others	Written Verification from Independent Party (if any)	200-209 211-212
G2		Feedback Sheet	217
G3		Responses to Feedback on the Previous Year's Sustainability Report	217
G4		List of Disclosures According to Financial Services Authority Regulation Number 51/POJK.03/2017 concerning Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies	199

GRI Content Index

Code	Principle	Description	Page
	GRI 1	GRI 1. Foundation 2021	51
2-1	GRI 2: General Disclosures 2021	Organization details	51 57-62
2-2		Entities included in the organization's sustainability reporting	1, 5-6
2-3		Reporting period, frequency and contact point	1, 5-6
2-4		Restatements of information	1, 5-6
2-5		External assurance	47-49 200-209 211-212
2-6		Activities, value chain and other business relationships	51-56
2-7		Employees	161-162
2-8		Workers who are not employees	161-162
2-9		Governance structure and composition ESRS 2: General Requirements Governance - 1 The role of the administrative, management and supervisory bodies	27-33
2-10		Nomination and selection of the highest governance body	27-33
2-11		Chair of the highest governance body	27-33
2-12		Role of the highest governance body in overseeing the management of impacts ESRS 2: General Requirements Governance - 4 Statement on sustainability due diligence	27-33 35
2-13		Delegation of responsibility for managing impacts ESRS 2: General Requirements Governance - 2 Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies	27-33 35
2-14		Role of the highest governance body in sustainability reporting ESRS 2: General Requirements Governance - 5 Risk management and internal controls over sustainability reporting	27-33 35
2-15		Conflicts of interest	171-176 183
2-16		Communication of critical concerns	171-176 183
2-17		Collective knowledge of the highest governance body	27-33, 35
2-18		Evaluation of the performance of the highest governance body	171-172
2-19		Remuneration policy	155-160
2-20		Process to determine remuneration	155-160

2-21		Annual total compensation ratio	155-160
2-22		Statement on sustainable development strategy Strategy - 1 Market position, strategy, business model(s) and value Chain Strategy - 3 Material impacts, risks and opportunities and their interaction with strategy and business model(s)	37-41
2-23		Policy commitments Impact, risk and opportunity management Policies adopted to manage material sustainability matters	35, 67-68, 125-126, 147-148, 175-176
2-24		Embedding policy commitments	35, 67-6, 125-126, 147-148, 175-176
2-25		Processes to remediate negative impacts Impact, risk and opportunity management Actions and resources in relation to material sustainability matters	35, 67-6, 125-126, 147-148, 175-176
2-26		Mechanisms for seeking advice and raising concerns	183
2-27		Compliance with laws and regulations	171-176
2-28		Membership associations	187
2-29		Approach to stakeholder engagement Strategy Interests and views of stakeholders	184-186
2-30		Collective bargaining agreements	183
3-1	GRI 3: Material Topics	Process to determine material topics ESRS 1: General Requirements Double materiality as the basis for sustainability disclosures IFRS S1: General Requirements For Disclosure of Sustainability Related Financial Information ESRS 2: General Requirements Description of the processes to identify and assess material impacts, risks and opportunities	47-49
3-2		List of material topics ESRS 2: General Requirements Disclosure Requirements in ESRS covered by the undertaking's sustainability statements	47-49
3-3		Management of material topics SASB: Agricultural Products (FB-AG-110a.2)	47-49
3-4	Climate Adaptation and Resilience GRI 3: Material Topics	Management of material topics	131-140
201-1	GRI 201: Economic Performance 2016	201-1: Direct economic value generated and distributed	70-81
201-2		201-2: Financial implications and other risks and opportunities due to climate change	70-81

303-1	GRI 303: Water and Effluents 2018	Interactions with water as a shared resource SASB: Agricultural Products Water Management (FB-AG-140a.1)	37-41 67-106
303-2		Management of water discharge-related impacts	37-41 67-106
303-3		Water withdrawal SASB: Agricultural Products Water Management (FB-AG-140a.1)	37-41 67-106
303-4		Water discharge SASB: Agricultural Products / Processed Food Water Management (FB-AG-140a.3 / FB-PF-140a.2)	37-41 67-106
303-5		Water consumption SASB: Agricultural Products Water Management (FB-AG-140a.1)	37-41 67-106
304-1	GRI 304: Biodiversity 2016	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas SASB: Software & IT Services / Processed Food Environmental Footprint of Hardware Infrastructure / Energy Management (TC-SI-130a.1 / FB-PF-130a.1)	125-144
304-2		Significant impacts of activities, products, and services on biodiversity	125-144
304-3		Habitats protected or restored	125-144
304-4		IUCN Red List species and national conservation list species with habitats in areas affected by operations	125-144
304-5		Add 3-1: Aquatic organism produced, juvenile seeds stock captured, use of fishing products	125-144
304-6		Add 3-2: Aquatic organism caught or harvested (fishing sector)	125-144
305-1	GRI 305: Emission 2016	Direct (Scope 1) GHG emissions SASB: Agricultural Products (FB-AG-110a.1)	125-134 139-140
305-2		Energy indirect (Scope 2) GHG emissions	139-140
305-3		Other indirect (Scope 3) GHG emissions	139-140
305-4		GHG emissions intensity SASB: Agricultural Products (FB-AG-130a.1)	139-140
305-5		Reduction of GHG emissions	139-140
306-1	GRI 306: Waste 2020	Waste generation and significant waste-related impacts	37-41 67-68 184
306-2		Management of significant waste-related impacts	184
306-3		Waste generated	139-140
306-4		Waste diverted from disposal	139-140
306-5		Waste directed to disposal	139-140
403-1	GRI 403: Occupational Health and Safety 2016	403-1: Occupational health and safety management system	182
403-2		403-2: Hazard identification, risk assessment, and incident investigation	182
403-3		403-3: Occupational health services	182-184

403-4		403-4: Worker participation, consultation, and communication on occupational health and safety	182-184
403-5		403-5: Worker training on occupational health and safety	157-158 182
403-6		403-6: Promotion of worker health	155-160
403-7		403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	182
403-8		403-8: Workers covered by an occupational health and safety management system	182
403-9		403-9: Work-related injuries	182
403-10		403-10: Work-related ill health	182
405-1	GRI 405: Diversity and Equal Opportunity 2016	405-1: Diversity of governance bodies and employees SASB: Software & IT Services Recruiting & Managing a Global, Diverse & Skilled Workforce TC-SI-330a.3	155-160 163-164
405-2		405-2: Ratio of basic salary and remuneration of women to men SASB: Software & IT Services Recruiting & Managing a Global, Diverse & Skilled Workforce TC-SI-330a.2	155-160
406-1	GRI 406: Non-Discrimination 2016	406-1: Incidents of discrimination and corrective actions taken	163-166
407-1	GRI 407: Freedom of Association and Collective Bargaining 2016	407-1: Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	183
408-1	GRI 408: Child Labor 2016	408-1: Operations and suppliers at significant risk for incidents of child labor	183
409-1	GRI 409: Forced or Compulsory Labor 2016	409-1: Operations and suppliers at significant risk for incidents of forced or compulsory labor	183
413-1	GRI 413: Local Communities 2016	413-1: Operations with local community engagement, impact assessments, and development programs	63-64 147-154
413-2		413-2: Operations with significant actual and potential negative impacts on local communities	63-64 147-154
416-1	Food safety GRI 416: Customer Health and Safety 2016	Assessment of the health and safety impacts of product and service categories SASB: Agricultural Products / Processed Foods Food safety (FB-AG-250a.1 / FB-PF-250a.1)	39-41 91-100 102-106 184
416-2		Incidents of non-compliance concerning the health and safety impacts of products and services SASB: Agricultural Products / Processed Foods Food safety (FB-PF-250a.3)	39-41 91-100 102-106 184

Index GRI 13. Aquaculture and Fisheries

Code	Material Topic	Page
13.1	Emissions (305 1-7)	139-140
13.2	Climate adaptation and resilience (201-2)	131-138
13.3	Biodiversity (304)	125-130
13.4	Natural ecosystem conversion	125-144
13.5	Soil health	37-41 125-144
13.6	Pesticides use	67-68 125-144
13.7	Water and effluents (303 1-5)	67-68 125-144
13.8	Waste (306 1-5)	67-68 125-144
13.9	Food security	64
13.10	Food safety (416 1-2)	39-41 91-100 102-106 184
13.11	Animal health and welfare	37-41 69
13.12	Local communities (413 1-2)	63-64
13.13	Land and resource rights	37-41 125-144
13.14	Rights of indigenous people	37-41 125-144
13.15	Non-discrimination and equal opportunity (405 1-2; 406-1)	163-166
13.16	Forced or compulsory labor (409-1)	183
13.17	Child labor (408-1)	183
13.18	Freedom of association and collective bargaining (407-1)	183
13.19	Occupational health and safety (403 1-10)	182
13.20	Employment practices	155-169 182, 183
13.21	Living income and living wage	65
13.22	Economic inclusion (201-1; 203-1; 203-2)	55 147-154
13.23	Supply chain traceability	15-16 39-41 91-100 102-106 184
13.24	Public policy (415-1)	184-186
13.25	Anti-competitive behavior (206-1)	171-180
13.26	Anti-competitive behavior (206-1)	171-180

Index per SASB

Code	Principle	Description	Content	Page
FB-AG-110a.1	Greenhouse Gas Emissions	Gross global Scope 1 emissions- renewable energy percentage/grid	Quantitative Metric tonnes (t) CO2-e	135-140
FB-AG-110a.2		Discussion of long and short term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	135-140
FB-AG-130a.1	Energy Management	(1) Operational energy consumed, (2) percentage grid electricity and (3) percentage renewable	Quantitative Gigajoules (GJ), Percentage (%)	135-140
FB-AG-140a.1	Water Management	(1) Total water withdrawn, (2) total water consumed; percentage of each in region with High or Extremely High Baseline Water Stress	Quantitative Thousand cubic metres(m3), Percentage(%)	125-134
FB-AG-140a.2		Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	125-134 183-184
FB-AG-140a.3		Number of incidents of non-compliance associated with water quality permits, standards and regulations	Quantitative	125-134 183-184
FB-AG-250a.1	Food Safety	Global Food Safety Initiative (GFSI) audit (1) non-conformance rates and (2) associated corrective action rates for (a) major and (b) minor non-conformances	Quantitative	39-41 91-100 102-106 184
FB-AG-250a.2		Percentage of agricultural products sourced from suppliers certified to a Global Food Safety Initiative (GFSI) recognised food safety certification programme	Quantitative Thousand cubic metres (m3), Percentage(%)	15-16 39-41 91-100 102-106 184
FB-AG-250a.3		(1) Number of recalls issued and (2) total amount of food product recalled	Quantitative Number, Metric tonnes (t)	15-16 39-41 91-100 102-106 184
FB-AG-430a.1	Environmental & Social Impacts of Ingredient Supply Chain	(1) Percentage of agricultural products sourced that are certified to a third-party environmental or social standard, and (2) percentages by standard	Quantitative Percentage (%) by cost	15-16 39-41 91-100 102-106 109-112 184
FB-AG-430a.2		Suppliers' social and environmental responsibility audit (1) non-conformance rate and (2) associated corrective action rate for (a) major and (b) minor non conformances	Quantitative Rate	15-16 39-41 91-100 102-106 109-112 184
FB-AG-430a.3		Discussion of strategy to manage environmental and social risks arising from contract growing and commodity sourcing	Quantitative	125-134 135-140 183-184
FB-AG-440a.2	Ingredient sourcing	Percentage of agricultural products sourced from regions with High or Extremely High Baseline Water Stress	Quantitative Percentage (%) by cost	125-134 135-140 183-184

Index per IFC Performance Standard on Environmental and Social Sustainability 2012

Code	Principle	Description	Page
IFC1 Performance Standard 1	Assessment and Management of Environmental and Social Risks and Impacts	The client, in coordination with other responsible government agencies and third parties as appropriate, will conduct a process of environmental and social assessment, and establish and maintain an ESMS appropriate to the nature and scale of the project and commensurate with the level of its environmental and social risks and impacts. The ESMS will incorporate the following elements: (i) policy; (ii) identification of risks and impacts; (iii) management programs; (iv) organizational capacity and competency; (v) emergency preparedness and response; (vi) stakeholder engagement; and (vii) monitoring and review.	182
IFC2 Performance Standard 2	Labor and Working Conditions	<ul style="list-style-type: none"> - Human resources policies and procedures - Working conditions and terms of employment - Workers organization - Non discrimination and equal opportunity - Retrenchment - Grievance mechanism - No child labour - No forced labour - Occupational health and safety 	155-169 182, 183
IFC3 Performance Standard 3	Resource Efficiency and Pollution Prevention	<ul style="list-style-type: none"> - Resource efficiency on greenhouse gases - Resource efficiency on water consumption - pollution prevention on waste - pollution prevention on hazardous material management - pollution prevention on pesticides use 	68 127-138 184
IFC4 Performance Standard 4	Community Health, Safety, and Security	<ul style="list-style-type: none"> Infrastructure and Equipment Design and Safety Hazardous Materials Management and Safety Ecosystem Services Community Exposure to Disease Emergency Preparedness and Response 	37-41 51-56 63-65 182-184
IFC5 Performance Standard 5	Land Acquisition and Involuntary Resettlement	<ul style="list-style-type: none"> Compensation and Benefits for Displaced Persons Community Engagement Grievance Mechanism Resettlement and Livelihood Restoration Planning and Implementation Economic Displacement 	63-65 182-184
IFC6 Performance Standard 6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	<ul style="list-style-type: none"> Protection and Conservation of Biodiversity Management of Ecosystem Services 	125-141
IFC7 Performance Standard 7	Indigenous Peoples	<ul style="list-style-type: none"> Avoidance of Adverse Impacts Participation and Consent Impacts on Lands and Natural Resources Subject to Traditional Ownership or Under Customary Use Relocation of Indigenous Peoples from Lands and Natural Resources Subject to Traditional Ownership or Under Customary Use Critical Cultural Heritage 	147-154
IFC8 Performance Standard 8	Cultural Heritage	<ul style="list-style-type: none"> Protection of Cultural Heritage in Project Design and Execution Project's Use of Cultural Heritage 	147-154





Feedback Page (G2)

This report is developed by the Sustainability and Development Unit at eFishery. Our dedicated team has conducted thorough research and analysis to ensure that the findings and recommendations reflect the highest standards of accuracy and relevance. We are committed to advancing sustainable practices in aquaculture and sharing insights that drive meaningful progress. For further information or inquiries about this report, please contact sustainability@efishery.com.

Profile

Name (if applicable) :
 Institution/Company :
 Email :
 Contact number :

Stakeholder Type

Investors, Financial Institutions : (YES/NO)
 Customers : (YES/NO)
 Employees : (YES/NO)
 Government : (YES/NO)
 Media : (YES/NO)
 Business partners : (YES/NO)
 Society and communities : (YES/NO)
 Others, please specify : (YES/NO)

Feedback

This report is easy to understand : (YES/NO)
 This report is useful to you : (YES/NO)
 This report clearly presents sustainability performance : (YES/NO)
 This report addresses material topics relevant to the Company : (YES/NO)

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