

Cultivating Change, Scaling Impact

Transforming The Artisanal Fishery Sector





A Note From MDI Ventures

In our commitment to cultivating positive change and steering towards a sustainable future, MDI Ventures is pleased to introduce the Impact Report 2023. As a strategic investor in impactful ventures such as Aruna, our dedication to fostering positive environmental and social transformations is at the core of our mission. Through this report and others in this collection, we aim to showcase members of our portfolio who align with our impact values, and in doing so, inspire similar companies with the potential for meaningful impact. By sharing insights into the companies we've invested in, we aspire to encourage a broader dialogue on how businesses can contribute to a more sustainable and equitable world. MDI Ventures remains unwavering in its pursuit of impactful investments that align with global sustainability objectives, and we invite others to join us on this journey towards creating a better future for all.



"We're all about making a real impact, not just chasing profits. We're helping our portfolio companies be more aware and conscious about impact. It's not about getting a stamp; it's about making a real difference in their businesses."

DONALD WIHARDJA,
CEO OF MDI VENTURES

Our Priority Focus Areas: United Nations Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs) are at the heart of our purpose, guiding our actions and inspiring our impact initiatives. In this report, we will describe how we are dedicated to digital impact in Indonesia. These themes are central to our mission, reflecting our belief in the power of education, equality, and social inclusion as critical drivers of sustainable progress.

ENVIRONMENTAL



SOCIAL



GOVERNANCE



Impact Created By Aruna

At Aruna, our purpose centers around creating impactful change. This report outlines our dedication to driving positive outcomes in Indonesia, focusing on key impact themes like Digital Empowerment, Access to Quality Education, Sustainable Agriculture and Fisheries, and Environment and Clean Energy.

Our commitment to these impact areas is ingrained in our DNA and reflected in our core business. It reflects our holistic commitment to the sustainable development of the sector and its communities, and aligns with the broader global goals outlined by the United Nations.

Aruna’s Impact Themes and Metrics

Thematics	Key Impact Metrics
Digital Empowerment	<ul style="list-style-type: none">• Financial outcomes through digitization: 3x increase in the income of Aruna’s fishermen partners• Job progression: Over 5,000 net-new jobs created
Access to Quality Education	<ul style="list-style-type: none">• Education Programs: 505 fishermen across 3 provinces participated• Donations: 6 literacy parks received book donations worth IDR 60 millions (USD 3,800)• Social Security: Supported enrollment of 800 fishermen partners for employment insurance (through collaboration with Badan Penyelenggara Jaminan Sosial Ketenagakerjaan)• Women Education: 1,636 women participated in 41 capacity building program
Sustainable Agriculture and Fisheries	<ul style="list-style-type: none">• Traceability & Compliance: 40 partner fishing boats equipped with tracking devices in 2022• End user impact: 40,000 fishermen partners engaged• Women Empowerment: 382 women participated in after-capture activities, ranging from pickers to helpers to fishers
Environment and clean energy	<ul style="list-style-type: none">• Climate Impact:<ul style="list-style-type: none">• 2,000 mangrove seeds were planted in coastal areas across 4 provinces• 40 coral reef seedlings were transplanted in Kepulauan Seribu• Waste Impact:<ul style="list-style-type: none">• 100 tons of waste was collected in the Aruna Beach Cleanup event across 3 provinces• 1 Aruna Zero Waste Hub Facility
Sustainability Baseline	<ul style="list-style-type: none">• Diversity & Inclusion<ul style="list-style-type: none">• 28% women employees, 124 in total• 28% of management are women, 5 in total• Governance:<ul style="list-style-type: none">• Anti-bribery management system is available

Aruna: Charting Waves Of Change

ABOUT ARUNA

Aruna is an innovative fisheries startup based in Indonesia, a country known for its rich maritime resources and long-standing fishing tradition. Founded in 2016 by Farid Naufal Aslam and Utari Octavianty, Aruna was born out of a deep commitment to empower local fishermen and revolutionize the seafood industry. The company leverages **technology and data-driven solutions** to connect small-scale fishermen directly with markets, bypassing intermediaries and ensuring fair prices for their catch. This approach not only benefits the livelihoods of these fishermen but also promotes sustainable fishing practices, as Aruna places a strong emphasis on environmental responsibility and the conservation of marine ecosystems.

Aruna's unique business model has rapidly gained traction, making it a **game-changer in Indonesia's fisheries sector**. Aruna provides traceability, quality control, and access to wider markets, thereby enhancing transparency and accountability in the seafood supply chain. These results reflect the startup's mission to support local communities, preserve marine resources, and promote ethical and sustainable practices in the Indonesian fisheries industry, while also contributing to economic development in the region. With a strong focus on social impact and environmental sustainability, Aruna stands as a prime example of how technology and entrepreneurship can drive positive change in traditional sectors, benefitting both the local economy and the planet.

aruna

Headquarters

Indonesia

Geography Focus

Indonesia

Sector

Fisheries

Founding Year

2016

Funding

Seed: US\$500K

Series A: US\$65M

Mission

Making the sea a better livelihood for all



The Need For Change: Indonesia's Fisheries Challenges

The Promise of Indonesian Fisheries

Indonesia, characterized by its vast archipelago and maritime landscapes, stands **as a nation with immense potential in the fisheries sector**. Across its 18,000+ total islands and islets, Indonesia offers a fertile ground for fisheries, supporting a variety of seafood including shrimp, tuna, skipjack, squid, cuttlefish, octopus, and crab.¹ This has enabled Indonesia to become the **second-largest fish producer globally**, with the fisheries sector playing a pivotal role in the nation's economy. Contributing US\$26.9 billion annually, approximately 2.6% of the GDP, this sector also serves as a primary source of protein, supplying half of the country's protein consumption. Perhaps more notably, the fisheries industry in Indonesia provides gainful employment for over 7 million individuals – 3% of the total population – many of whom are low-income (USD 0.8 per capita per day²), highlighting its significant role in supporting livelihoods.

Systemic Challenges and Societal Struggles

Despite the promise for the fishing sector in Indonesia, it faces three critical challenges. First, **illegal, unreported, and unregulated fishing (IUU)** threatens the integrity of marine resources. Nearly 38% of the nation's marine capture fisheries are overfished, with an additional 44% fully fished, as per the

Borgen Project, an American non-profit.³ This exploitation has far-reaching consequences, including **reducing approximately one-third of Indonesia's coral reefs to poor condition, substantial losses in vital coastal mangrove ecosystems, and marine debris management costing more than USD\$450 million annually**.⁴

The second critical problem is the **fragmented nature of the fishing supply chain in Indonesia**. The scale of Indonesia's fishing fleet is vast, numbering over 600,000 vessels (the second largest in the world), but more than 90% of these are "small vessels," weighing less than 10 gross tonnage. These vessels are collectively responsible for over half of Indonesia's total fishing output.⁵ Additionally, the existing fishing system is marred by **inefficiencies and inequities**. Traditional fishing practices, pricing opacity, the seasonality of fishing patterns, and a lack of negotiating power have created a scenario where middlemen take a majority of the profits. This longstanding issue perpetuates income disparities by inflating pricing and reduces the take-home income for individual fishermen. The consequences of this imbalance are particularly poignant for impoverished communities, as **elevated prices limit access to essential protein sources**. One long lasting impact of protein malnourishment is stunting, causing inadequate growth of physical and cognitive abilities, impacting 27.7% of children under the age of five. The prevailing system not only hinders the economic progress of small-scale fishermen but also exacerbates food insecurity among the less privileged.⁶

¹ International Journal of Applied Biology (2021): [Prospects of Fisheries Industry Development in Indonesia](#)

² United Nations Economic and Social Commission for Asia and the Pacific: [Understanding Poverty and Poverty data in Indonesia](#)

³ The Borgen Project (2021): [Combating Illegal Fishing in Indonesia](#)

⁴ World Bank Report (2021): [A Sustainable Ocean Economy is key to Indonesia's Prosperity](#)

⁵ World Bank Report (2021): [Oceans for Prosperity](#)

⁶ UNICEF Data (2020): [Child Malnutrition Estimates](#)



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“I want to change the culture of where fishermen usually get an unfair selling price. Now, with Aruna, fishermen can input their details in the app, calculate it with the market price, and receive cash payment instantly.”

**JENAL MISBAHUDDIN,
ARUNA'S LOCAL HERO IN
UJUNG GENTENG**

Transforming The Artisanal Fishery Sector

Utari, Aruna's Co-Founder and Chief Sustainability Officer, hails from a coastal village in Balikpapan, East Borneo, where her family's deep involvement in fishing shaped her perspective. Growing up amidst small scale fishers, with an uncle actively engaged in fishing and parents selling fishing gear, Utari recognized the industry's underdevelopment. Witnessing inefficient practices for years, she, along with Aruna's other co-founders, initiated Aruna to combat transparency issues and the exploitation of the fishing potential of Indonesia. At the core of Aruna's vision is the commitment to **empower small-scale fishermen by providing them with fair market access and eliminating the exploitation** often associated with established supply chains. The startup aims to revolutionize the fishing industry through innovative technology, fostering transparency, and promoting responsible fishing practices.



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“Middlemen usually try to maximize their margins, but at Aruna we do not do that, to ensure that fishermen get a better income.”

**UTARI OCTAVIANTY,
CO-FOUNDER AND CHIEF
SUSTAINABILITY OFFICER AT ARUNA**

Aruna’s supply chain is a comprehensive network that connects local fishermen and fish farmers, supported by helpers – often women - who process, size, and grade the freshly-caught fish. Local Heroes, group managers from the local communities, offer critical oversight and enablement using Aruna’s platform. The journey of the fish extends from the fishermen to Aruna Hubs, Aruna Industry Partners, and finally to Aruna distribution and warehouse partners before reaching businesses who sell directly to consumers.

Creating Waves in the Community

Aruna prioritises the welfare of local fishermen by rerouting profits directly to them and circumventing middlemen. This core focus represents a departure from the traditional profit-focused motive and establishes a unique paradigm where **social impact takes precedence over maximizing short term profits**. Aruna consciously invests in improving revenue outputs for the fishermen, even if it comes at a cost to the startup itself.



"We do take a hit on the profits that we could maximise, but as long as there is constant supply, the fishing industry is such that there is enough [profits for everyone]"

**UTARI OCTAVIANTY,
CO-FOUNDER AND CHIEF
SUSTAINABILITY OFFICER AT ARUNA**

The platform exports approximately 10 tons of seafood each month, a testament to the global demand for responsibly sourced seafood. Remarkably, the demand for Aruna's products has exceeded the platform's current supply by more than five times, indicating substantial untapped potential for further growth. The long-term resilience of this model hinges on maintaining consistent supply throughout different seasons and across diverse fishing regions. This would provide ample room for market expansion and continued profit-sharing with the fishermen.

Merging Technology with Grassroots Impact in Fisheries

Aruna's commitment to innovation is evident through its strategic incorporation of Internet of Things (IoT) and data to optimize operations and develop value-added products. Data is captured from the fishermen to map fish variety and population across geography and seasons. **Real-time data modelling enables Aruna to project seasonality of international demand.** Leveraging historical data, the platform benchmarks fishing activities by location, allowing for a comprehensive analysis of fishing performance and the identification of areas for improvement.



Impact Themes

The heart of Aruna's impact lies in its commitment to providing market access through a digital auction platform, by fostering trade between local fishermen and international buyers. This not only empowers local fishermen, but it ensures fair market pricing and enhances supply chain efficiency, leading to improved profit margins for the fishermen.



"Sustainability is not a choice; it's our responsibility."

**UTARI OCTAVIANTY,
CO-FOUNDER AND CHIEF
SUSTAINABILITY OFFICER AT ARUNA**

As a champion of sustainability, Aruna has played a pivotal role in shifting the focus from short-term fishing to a more conscientious approach that considers longevity and environmental health. Through educational initiatives, Aruna imparts knowledge about sustainable fishing practices and standards, leading to more spending and better quality of life. Furthermore, the startup emphasizes women's empowerment, recognizing the significant role women in fishing villages play, leveraging their extensive local and traditional ecological knowledge.

Digital Empowerment

Ensuring Welfare and Well-being of Fishermen

Recognizing the importance of technology in rural development, Aruna pioneers initiatives to bring connectivity, electricity, and education to local communities. This is a meaningful challenge, as only 36% of Indonesian adults in rural areas have internet connectivity, compared to 62% in urban zones.⁷ Aruna remains committed to bridging this gap. The startup actively promotes digital literacy and the digitization of fishing data and statistics, collaborating with governments and international agencies to procure essential data. To comply with governmental geo-fencing regulations, Aruna **integrates sensors and devices on fishing boats**, the impacts of which will be elaborated later in this report.



"Aruna, thank you. Because of you, my catch has been exported abroad and I could send my children to university. I am proud to share that they have graduated."

**BAPAK MURIDON,
A FISHERMAN OF ARUNA**

⁷ World Bank Report (2021): [Ensuring a more inclusive future for Indonesia through digital technologies](#)

⁸ Business wire article: [Tech for Good - Aruna Wins Alipay-NUS Enterprise Social Innovation Challenge for Using Digital Technology to Raise Incomes of Fishermen](#)

Through Aruna's digital platform, fishermen can sell their catch at fair prices, leading to notable income increases, with some experiencing a **3 to 12-fold rise** and earning a minimum monthly income of IDR 3 million (USD\$210), well above the poverty line.⁸ The digital platform has also significantly contributed to job creation and financial inclusion, **generating over 5,000 new jobs** nationwide.

Access to Quality Education

Elevating Communities through Education

Beyond the fisheries sector, Aruna takes on a role as an educator, conducting sessions for fishermen on personal finance and household management best practices. Through a series of targeted training workshops, the company has undertaken the mission of **digital inclusion and skills improvement** to elevate the educational base of the community. In 2022, Aruna organized three training workshops for a total of 505 people. These workshops covered sustainable fishing of fishery commodities, environmentally friendly fishing gears, and household financial management. In 2023, Aruna was the first integrated fisheries commerce in Indonesia that broke the Indonesian World Record Museum (MURI) with the category of **"The Largest Attended Hybrid Education of Sustainable Fishing for Indonesian Fishers"**, educating more than 1,700 fishermen and coastal communities throughout Indonesia about sustainable fisheries.



Aruna also educates the fishermen about the importance of employment insurance and actively guides them through the insurance application process, providing a safety net for the fishermen in case of unforeseen circumstances. The startup's commitment to fishermen's well-being is evident in its registration of 778 fishermen from 9 provinces with Badan Penyelenggara Jaminan Sosial Ketenagakerjaan (BPJS), ensuring they have access to health and social security benefits.⁹

Moreover, Aruna collaborates closely with various entities, helping to provide stable jobs for educated youth within rural neighbourhoods to retain talent in the coastal regions. Through the Maritim Nusantara Lestari Foundation, **Aruna engages youth in managing the restored mangrove forest and building their capacity in money management.**

⁹ Aruna Current Stats: [Website](#)



The Foundation also donates books for coastal children and provides free health check-ups. By fostering partnerships with educational institutions, Aruna ensures that Local Heroes, the key figures managing the platform at the community level, are proficient in utilizing the platform effectively. **This collaboration not only enriches the technological landscape of rural areas but also serves as a strategic initiative to combat brain drain.** By keeping talent local and providing well-paying jobs, this creates a more equitable spread of resources, driving increased spending and broader prosperity in coastal regions.

Empowering Coastal Women

Although the fisheries sector has long been associated with male employment, Aruna is dedicated to fostering economic empowerment for women by providing after-capture jobs and the necessary training for them to be successful. For example, during 2022 to 2023, Aruna organized 41 training sessions, engaging a total of 1,636 female participants. These sessions covered topics such as digital marketing for MSMEs, financial management, quality production and sustainable fisheries. **The content of these training programs aimed at equipping women with the skills and knowledge necessary to explore alternate income opportunities, fostering self-reliance and financial independence.**

Although women participate in nearly all fishing related activities, they often lack the know-how for engine-repair and maintenance. This is an area Aruna will explore for future training.

Sustainable Agriculture and Fisheries

Fostering Traceability and Accountability in Fisheries

Aruna's dedication to empowering the underserved community is evident in its reach, serving **40,000 fishermen in 31 provinces through more than 150 operational hubs, covering a substantial 60% of the country.**¹⁰

Female participation in fishing activities primarily centers on post-capture tasks, including handling, weighing, and processing the caught products. Within Aruna's value chain, the company has empowered more than 382 women, encompassing roles such as pickers, helpers, and fishers.

Aruna stands at the forefront of sustainable fisheries advocacy through its active engagement in the Sustainable Fisheries Forum. Collaborating with governments, academics, practitioners, and NGOs, Aruna plays a pivotal role in advocating for policies, strategies, and frameworks aimed at fostering a blue economy.¹¹ This commitment extends to tangible support for fishermen, as Aruna collaborates with prominent entities like Astra International and Bank Maybank (formerly Bank Internasional Indonesia), ensuring the provision of high-quality and safe equipment. The activities undertaken by Aruna are comprehensive, ranging from the procurement of fishing equipment to the repair of boats, facilitating paperwork for financing loans and insurance (financial access support), engaging in food processing and vacuum sealing, and even incentivizing fishermen with bonuses for productivity targets.



"Aruna aims to make Indonesia the global maritime axis by revolutionizing the fishery supply chain and implementing the concepts of sustainable fisheries,"

**FARID NAUFAL ASLAM,
CO-FOUNDER AND CEO AT ARUNA**

Aruna's commitment to traceability is manifested in its installation of tracking devices on fishing boats, ensuring compliance with overfishing regulations and the maintenance of fish stocks. In 2022 alone, **40 partner fishing boats were equipped with Automatic Position Logger (APL) devices** in the Jenebora region of East Kalimantan. These data logs play a crucial role in food standardization and quality checks. In 2023, Aruna has begun development of five **proprietary tracking devices to further enhance compliance with sustainable fishing guidelines, as seen in Global Reporting Initiative (GRI) standards (GRI 13.3) on catch and release.**

¹⁰ Data provided by Aruna

¹¹ Blue Economy is an economic system that seeks to conserve marine and freshwater environments while using them in a sustainable way to develop economic growth.

Environment and Clean Energy

Commitment towards Sustainable Seas

Aruna's is also committed to environmental sustainability. It has **planted 2,000 mangrove seeds in coastal areas across four provinces and transplanted 40 coral reef seeds in Kepulauan Seribu**. Mangrove planting serves as a crucial measure to enhance coastal ecosystems, providing numerous ecological benefits such as shoreline protection, habitat for marine life, and carbon sequestration.

Regarding GRI 13.1 on emissions, Aruna is committed to exploring alternative fuels and initiatives to reduce emissions throughout its value chain. Indonesia presents several promising avenues for sustainable practices, such as Azura in fishing boats and electricity-powered boat engines, initiatives supported by the United States Agency for International Development (USAID), Sustainable Energy for Indonesia's Advancing Resilience (SINAR), and the German Corporation for International Corporation (GIZ) in providing solar-powered ice storage facilities. These represent key areas Aruna aims to explore in the future.

Waste Solutions for Cleaner Environment

Aruna's waste management initiative successfully collected 100 tons of waste through beach clean-ups events in 3 provinces and established an Aruna Zero Waste Hub Facility. Aruna's commitment extends to waste management, covered under GRI 13.8, with measures in place to facilitate proper water circulation and renewal, as well as responsible disposal and clean-up of ocean plastic. In collaboration with Tempat Pengelolaan Sampah Reduce-Reuse-Recycle/TPS3R, Aruna has established a dedicated waste management centre in

East Java. Finally, there are plans to introduce a fishing equipment buy-back program to reuse or dispose of old equipment, increasing the circularity of the industry as a whole.

Sustainability Baseline

Aruna is committed to best practice sustainability guidelines, particularly emphasizing Diversity & Inclusion and Governance. The company manages a workforce where 28% of its employees are women, reflecting an ongoing commitment to providing opportunities for professional growth.

On governance, Aruna has policies covering anti-bribery and corruption, anti-money laundering, and counter finance terrorism. To ensure that all employees adhere to these policies, Aruna holds all its employees to a Code of Conduct focused on business ethics. Aruna also prioritizes addressing grievances for internal employees, external parties and coastal communities through the establishment of a dedicated channels, underscoring its commitment to transparency and accountability. In 2023, they have received and successfully resolved 1,716 enquiries.





The Way Forward

Continuous Commitment to Sustainable Fisheries: Standardization and Global Reach

Aruna has **set ambitious targets to equip all partner fishing boats with APL tracking setups**. This initiative aligns with Aruna's overarching goal to **enhance traceability and transparency** in the fishing process. By incorporating APL in every partner boat, Aruna aims to monitor fishing activities more effectively to ensure compliance with environmental regulations.

Aruna aims to expand globally, bringing responsibly-sourced seafood to a broader international audience. Securing FDA registration in Canada is a pivotal step in its expansion strategy. Aruna has recently registered with the World Wildlife Fund (WWF) for sustainable fishing practices, under the membership program of Seafood Savers. Aruna has recently pledged to ensure that 100% of its partners comply with sustainable fishing practices and this underlines its commitment to driving positive change in the fisheries industry.

Strategic Expansion: High-Quality Seafood Beyond Borders

Building on the success till date, Aruna has bright ambitions to carry the momentum forward. Aruna has recently **launched its own branded products** for business-to-consumer (B2C) sales. This marks a notable expansion beyond its traditional business model, providing consumers with direct access to Aruna sourced high-quality seafood products. This move not only enhances Aruna's market visibility but also establishes a more direct connection between the company and end consumers.



Aruna's product line includes lobsters, tuna & mackerel, shrimp, blue swimming crab, grouper & snapper. By expanding its offerings to private labels, Aruna builds brand recognition responsibly sourced and high-quality seafood choices. Aruna also aims to **capture more components of the supply chain to retain a greater share of profits, enabling more substantial returns to be channelled back to the fishermen and the company itself.**

Aruna is strategically expanding its collaborative efforts to scale its operations, with a particular focus on **forging partnerships with a diverse range of aggregators** for both international export and domestic sales. Aruna's annual export of approximately USD 4 billion is a testament to the international success of Aruna's business model. While in the domestic market, Aruna leverages established platforms, including Shopee, Tokopedia, Bukalapak, and others, ensuring a streamlined distribution network.

Closing

Aruna's journey in transforming the fishing industry reflects a steadfast commitment to positive impact across various critical themes. Through their focus on Digital Empowerment, Access to Quality Education, Sustainable Agriculture and Fisheries, Environment and Clean Energy, Aruna has not only revolutionized the fisheries sector but also aligned its mission with Sustainable Development Goals. Through active empowerment of the fishermen community and the promotion of enhanced traceability and transparency in the fishing process, Aruna's unwavering dedication to innovation, sustainability, and collaboration positions the company as a key player in **making Indonesia the global maritime axis by 2045.**