

# Transforming Fisheries Management in Indonesia: AI Technology Collaboration with YKAN, Intelion & the N50 Project

JAKARTA, INDONESIA, August 15, 2024 /EINPresswire.com/ -- The [N50](#) Project is proud to announce a significant advancement in fisheries management through the collaborative efforts with Yayasan Konservasi Alam Nusantara ([YKAN](#)) and [Intelion](#).

According to Michael Potter with N50 and Geeks Without Frontiers, "this initiative leverages cutting-edge artificial intelligence (AI) technology and digital solutions to address biodiversity challenges, aiming to protect and preserve Indonesia's rich marine biodiversity through innovative digital solutions."



Indonesian Fishing Equity & AI

Yayasan Konservasi Alam Nusantara (YKAN) works in 14 provinces across Indonesia to protect nature and preserve the biodiversity of a vast archipelago comprising 17,500 islands, stretching 5,000 km from east to west.

This high marine biodiversity is reflected in Indonesia's fisheries. Fishing is an important part of the culture of Indonesia's coastal people, and market surveys show that Indonesia's fisheries include over 873 species of bony fish and over 137 species of sharks, rays, and chimeras. Unfortunately, many of these fisheries are over-exploited, while others lack any data on their status and life-history—some of the traded fishes are even new to science.

With grant support from the Cisco Foundation, YKAN is leveraging the innovative software application called FishFace (Fish Facial Identification Technology) to help the government and fishing communities understand the status of fish stocks in the area and to design solutions to manage these fisheries for the benefit of people and nature.

Working in close partnership with N50 Project, Geeks Without Frontiers and Intelion, YKAN is designing a new approach to overcome this challenge. Initial trials have shown that a FishFace system, which utilizes AI, outperforms trained observers, achieving 99% accuracy. Coupled with software that automatically grabs a picture of a fish as the crew moves it through the field of vision of a digital camera, a FishFace system can revolutionize fisheries research and management in Indonesia with real-time data collection and can provide a more accurate dataset on the status of Indonesia's fish stocks and insights for local fishery regulations that will preserve nature and the biodiversity of the region.

Glaudy Perdanahardja, YKAN's Fisheries Conservation Lead, stated, "Effective fisheries management in Indonesia does not necessarily require significant financial investment. What we need are innovative solutions and practical technologies. FishFace technology exemplifies this approach perfectly."

This innovative effort is led by YKAN and Intelion and includes Geeks Without Frontiers who are all part of the N50 consortium. The N50 Project aims to bring 50% of the world's population online by 2030, focusing on sustainable and inclusive development. One of the key elements to enabling sustainable digital participation is by creating applications that enrich people's lives. These AI generated digital applications are creating real value for these communities in Indonesia. By leveraging cutting-edge technology and fostering innovative partnerships, the N50 Project and its partners are driving significant progress in environmental conservation and digital inclusion.

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*Michael Potter, N50 & Geeks Without Frontiers*

“We are thrilled to support YKAN, and Intelion efforts in

Indonesia,” said Rajiv Kumaraswamy, Project Manager at Geeks Without Frontiers. “This AI-driven initiative not only enhances the sustainability of local fisheries but also exemplifies the transformative potential of AI in solving complex environmental challenges and enriching people’s lives. By harnessing these advanced technologies, we are paving the way for a future where digital tools can safeguard our planet’s biodiversity and ensure the well-being of



Indonesian Fishing & AI Installation

communities worldwide. A key focus of the work of Geeks Without Frontiers and the N50 Project is on how digital solutions, connectivity, and AI can help empower communities, address human rights and biodiversity challenges.”

The N50 Project and our partners are committed to fostering sustainable practices that will preserve Indonesia's natural heritage and biodiversity for future generations.

About Yayasan Konservasi Alam Nusantara (YKAN)

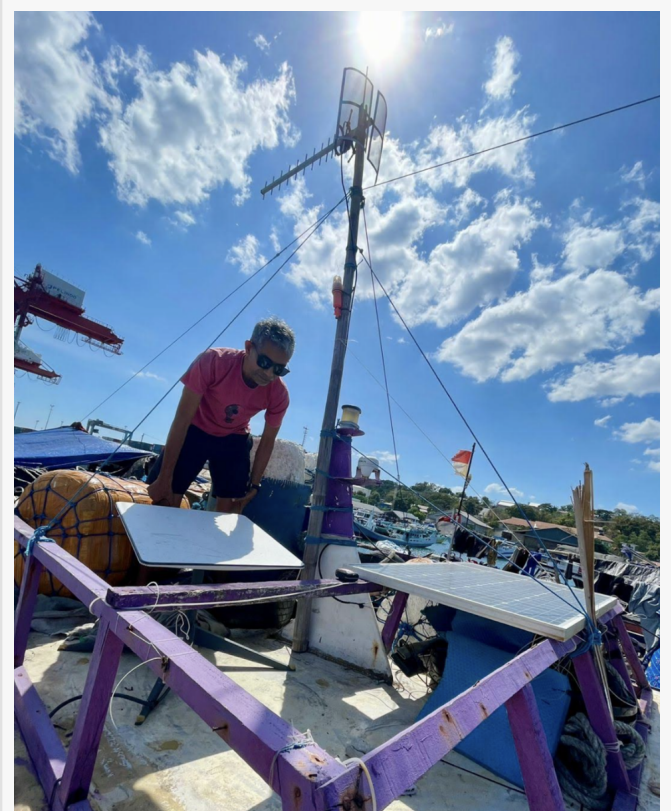
Yayasan Konservasi Alam Nusantara (YKAN) is a nonprofit organization that works in 14 provinces across Indonesia to protect nature and preserve the biodiversity of a vast archipelago comprising 17,500 islands, stretching 5,000 km from east to west. This high marine biodiversity is reflected in Indonesia’s fisheries. Fishing is an important part of the culture of Indonesia’s coastal people, and market surveys show that Indonesia’s fisheries include over 873 species of bony fish and over 137 species of sharks, rays, and chimeras. Unfortunately, many of these fisheries are over-exploited, while others lack any data on their status and life-history—some of the traded fishes are even new to science. With grant support from the Cisco Foundation, YKAN is leveraging the innovative software application called FishFace (Fish Facial Identification Technology) (<https://www.ykan.or.id/en/about-us/our-science/fish-face/>) to help the government and fishing communities understand the status of fish stocks in the area and to design solutions to manage these fisheries for the benefit of people and nature.

<https://www.ykan.or.id/en/about-us/>

About Intelion

Intelion is an IT consultancy company based in Indonesia, specializing in the development of cutting-edge systems. Over the years, Intelion has partnered with a diverse range of organizations across various industries, including both local and international non-profits and businesses.

In this project, Intelion plays a key role in designing, developing, and implementing the FishFace software. This includes integrating machine learning technology to power the AI system for species identification, developing a user-friendly mobile app and hardware mechanism for fishermen to capture images, and building a web-based back office for data management. Following these developments, Intelion, in collaboration with GEEKS without Frontiers, provided



Indonesian Fishing AI & Connectivity

on-site field testing and training for the fishermen, which has proven effective in supporting sustainable fishery practices and significantly improving the overall quality and reliability of fishery data collection.

<https://www.intelion.co.id/about-intelion>

#### About the N50 Project

N50 is the Geeks Without Frontiers led initiative that is focused on the next 50% of the planet that does not fully digitally participate. The N50 partners' primary focus is to launch projects for marginalized communities using best-practice playbooks for long-term delivery of ICT solutions. N50 is an open, inclusive ecosystem that is fueling transformation in some of the world's most challenging environments. Our live 'Digital Participation' projects in the field are designed to enable communities to access the education, health, social and financial benefits that flow from affordable and sustainable digital inclusion. Your organization can make a difference! Submit a compelling project or a compelling solution and join us to help communities that are currently stranded on the edge of networks! [www.n50project.org/join](http://www.n50project.org/join)

#### About Geeks Without Frontiers

Geeks Without Frontiers is an award-winning platform for global impact. A technology neutral nonprofit, Geeks' mission is to bring the benefits of broadband connectivity – health, education, poverty reduction, gender equality, and the other United Nations Sustainable Development Goals (SDG's) – to the 3 billion people who remain unconnected. Geeks acts as the Project Management Office for the N50 Project. For more information, please visit [www.geekswf.org](http://www.geekswf.org).

#### About Cisco Foundation

Through the Regional Solution Grants (RSG) program, the Cisco Foundation supports non-profit/non-governmental organizations that offer digital, tech-enabled solutions and services that support vulnerable and/or underserved people. By leveraging the full power of Cisco's offerings of grant funding, technology donations, expertise, and employee volunteerism, Cisco Foundation invests and partners with direct service organizations help strengthen their organizational capacity, design solutions, and take their programs and services to the next level -- thereby positioning them for long-term viability and impact people and communities around the world. <https://www.cisco.com/c/en/us/about/csr/impact/cisco-foundation.html>

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