TERM OF REFERENCE

Team of Consultants supporting the YKAN Fisheries Program: Enhancing Technology, Data Collection, and Conservation Efforts for Tuna, Snapper, and Coastal Fisheries

Tim Konsultan pendukung Program Perikanan YKAN: Peningkatan Teknologi, Pengumpulan Data, dan Upaya Konservasi Perikanan Tuna, Kakap, dan Pesisir

	:	RFP (Request for Proposal)
Work Location	:	FMA 711, 712, 713, 714, 715, 718, 573, Bali and Jakarta
Deadline for submitting proposal	:	19 July 2024
Development Area	:	Services
Budget (optional)	:	$ 285.000 / IDR 4.501.839.210

Overview

The Yayasan Konservasi Alam Nusantara (YKAN) is seeking a team of consultants to create and execute a collaborative fisheries conservation program in Indonesia. This program will utilize innovative management approaches, particularly through the establishment of public-private partnerships, to facilitate the conservation of fisheries and ecosystems. It aims to support the Indonesian government in developing effective data-poor stock assessment methodologies by involving the private sector in data collection. The use of communication technology, specifically the widespread internet connectivity in Indonesia, is expected to significantly improve traceability and data collection cost-effectively. The team of consultants will assist the YKAN fisheries program in carrying out activities for various projects, including the Koralestari project, AIF, MACP coastal, and Tuna Consortium Phase 3.

To ensure the successful deployment of this program, YKAN is seeking a team with the following expertise:
- Senior fisheries expert
- Three (3) senior fisheries technician
- Two (2) field technicians
- Fisheries database developer
- Traceability specialist

These are the following deliverables for these services:

- Number and list of participating vessels per year in the YKAN CODRS program, assuming that each vessel participates for at least a full year.
- Technical reports with findings on exploitation status of snapper fisheries in Indonesia Fishery Management Areas 711, 712, 713, 715, 718 and 573

- Comparison length-based assessment of snapper fisheries in 2020 and 2023 covering WPP/ FMA 711, 712, 713, 715, 718 and 573
- Tuna White Paper1: Evaluation on FADs utilization <12nm and >12nm.
- Tuna White Paper2: Uncertainties in assessing fishing capacity and fishing effort in diverse and dispersed fisheries - Experiences from tuna fisheries in the archipelagic waters of Indonesia.
- Re-assessment snapper fisheries stock status or conduct preliminary stock assessment of other coral-related fisheries for Kolarestari Project
- Support the development of frame survey and supply chain report for Koralestari project
- Based on the CODRS data collected, consultants should support the development of reports for the following:
  1. Length-Based Assessment of coastal fisheries in Teon Nila Serua (TNS)
  2. Length-Based Assessment of the Coastal Fisheries in Raja Ampat (Misool island), MHA Werur, and MHA Malaumkarta

I. Background

Indonesia's marine capture fisheries are in trouble because of over-fishing and destructive fishing practices. Both are consequences of the "tragedy of the commons": Fishers, lacking incentives for sustainable use, compete for the last remaining fish in open-access fishing grounds. Small-scale and industrial fishers already depleted many of Indonesia's once most valuable fish stocks such as groupers and Southern bluefin tuna. The struggle for the last remaining fish has increased operational costs, and long transport routes to reach fishing grounds that are not yet depleted have driven up costs for consumers while decreasing product quality. Consumers, fish traders. fish processors, and fishers would all benefit from rationalization of fishing fleets, but instead fuel subsidies, ill-directed development assistance, and failing governance caused the situation to spiral out of control.

Fortunately, there are examples of fisheries and fishing communities that achieved sustainable use. Often, such successes are based on efficient involvement of fishers and fishing companies in governance. Strategies for involvement of the fishing sector range from co-management to rights-based management. In co-management, government and private sector work together to design and implement management measures. In rights-based management, the private sector acts as a steward of a part of the resource. Also for Indonesia, co-management and rights-based management offer opportunities for improved fisheries management.

The Indonesia Ministry of Marine Affairs and Fisheries is transforming from an agency that aims to increase Indonesia's fishing fleet to an agency that aims to achieve sustainable use. The private sector, in the mean time, feels the need to take action before fish stock are depleted beyond recovery. The need is all the more urgent because of the demand for sustainable fish from export markets in the EU and US, where major

buyers committed to source only fish that is certified as sustainable. This means that the time is right to assist fishing companies, and fishers, especially those supplying export markets, to take a more prominent role in fisheries management in collaboration with government agencies. Decentralization opens up further possibilities for fishing companies to get involved in collaboration with local (district and provincial) governments.

Whereas collaborative and rights-based management strengthen incentives for management towards sustainable fisheries, the management actions (or tools) remain the same as in conventional, government-driven management: Effort control, gear regulations, catch (species, size, quantity) regulations, and area-specific regulations, notably no-take areas. In collaborative as in conventional fisheries management, these regulations aim to keep fish stocks and ecosystems in good health so that they can continue to supply capture fisheries. The difference is that under collaborative management the private sector has stake in the health of fish populations and ecosystems, and that under collaborative management the act of fishing becomes one of the elements of a production process rather than a purpose all by itself. The challenge is to assist the private sector in making efficient use of these management tools---a process that also requires involvement of the private sector in data collection.

No-take areas (reserves) are among the most effective tools to recover fish populations. Self-governing fishing communities have used reserves for centuries to this day. Successful implementation of reserves depends on effective enforcement, political will, and a supportive regulatory framework. Whereas these conditions are not all met in Indonesia, there are opportunities to garner private sector support for reserve networks, for example by granting exclusive use of fishing grounds in return for compliance with reserve regulations. As a non-governmental, non-profit organization, YKAN is in an excellent position to assist government agencies with establishment of private sector-backed reserve networks. Another option is to develop easements in support of sustainable fisheries.

Yayasan Konservasi Alam Nusantara plans to develop and implement a private sector-oriented, collaborative fisheries conservation program in Indonesia, which will harness innovative management approaches such as co-management, and public-private partnerships to conserve fisheries and ecosystems. The program will focus on export fisheries, taking an ecosystem-based approach to achieve its objectives. The program will assist the government of Indonesia to develop effective partnerships with private sector partners, and to establish private sector-backed marine reserves. Furthermore, the program will support the development and adoption of data-poor stock assessment approaches with involvement of the private sector in data collection. Use of communications technology plays an important role in the program---Internet connectivity in Indonesia is already ubiquitous and improving, and this development offers opportunities for improving traceability and data collection in a cost-effective manner.

During the assignment of this contract, the consultant(s) shall work mostly in YKAN Sustainable Fisheries Program's office in Sanur but may also need to travel to several project locations, including but not limited

to, the following areas: Lombok, Mataram, Jakarta, Probolinggo, Lamongan, Surabaya, Sumbawa, Dompu, Bima, Komodo, Labuan Bajo, Flores, Ende, Maumere, Larantuka, Kupang, Rote, Sulawesi, Luwuk, Makassar, Galesong, Dobo, Tual, Sorong, Saumlaki, Tanimbar, Ambon, Banda, Raja Ampat, and Alor, Aceh Jaya, Aceh Barat, Natuna, Tanjung Balai Karimun, Batam, Kepulauan Riau, Bintan, Bangka, Belitung, Padang, Bengkulu, Berau, Sanggata, Bontang, Balikpapan, Pontianak, Tangerang, Sidoarjo, Sumenep, Banyuwangi and other countries if necessary.

The team will conduct the following functions and assignments:

II. GENERAL TASKS

1. STRATEGIC PLANNING AND TECHNICAL CONSULTATION

a. Provide strategic planning advice to YKAN Indonesia and collaborating YKAN fisheries program (notably the YKAN PACFish Program) and other projects are conceived, designed, executed and monitored for its performance. Fisheries reform in Indonesia are complex projects that have many life cycles and phases – and PNCI will advise YKAN Indonesia on how to best plan for and implement those phases appropriate for our institutions' involvement. PNCI's strategic advice will help ensure triple bottom line sustainability principles (ecologically sound, socially acceptable and economically profitable) are implemented throughout the process, including the engagement and participation of local communities to enhance local project ownership

b. Provide technical support, research, regional knowledge about relevant fisheries, including, in special cases, ground-truthing fish stocks and abundance, data collection, knowledge transfer, analysis, and fisheries and scientific advice to YKAN Indonesia and partners. In some cases, as directed by Mr. Mous, PNCI will be tasked with implementing several of the above elements in close cooperation with other partners.

c. Provide monthly progress and status reports to YKAN on how the program is progressing, what is working well and what project aspects need improvement.

d. Participate in person at monthly meetings with YKAN Indonesia and private sector staff to coordinate roles and activities and communicate openly about how the team is functioning and plan effectively for future tasks.

1. Become familiar and fluent with the academic research and new fisheries concepts that YKAN and partners are/have developed - Examples include:

a. **"Data poor" stock assessments** that utilize an extension of the Beverton–Holt Life History Invariance principal to empirically specify size based indicators of Spawning Potential Ratio. Become familiar with the "decision tree" process for assessing stock status and setting harvest levels in these data poor situations, as well as the kinds and types of data and measurements that need to be collected by fishermen and the mini-plants to inform these assessments and harvest scenarios.

Help ensure that the data protocols and systems being utilized at the mini plants are rigorous and appropriate for eventual third party review and analysis should certification be justified and desirable. And finally, work closely with private sector partners to analyze this fisheries data with the goal to recommend an annual harvest plan and scenario driven by biomass levels, life history knowledge, size structures, spawning seasons/locations, etc.

b. **Spatial bio-economic modeling** that can be utilized to design effective systems of coupled MPAs with Territorial User Rights Fisheries (TURFs) or other responsible fishing zones. Become familiar with the models with an aim to co-lead a team to design and plan for a network of MPAs and TURFs in agreed upon places within the project area. Utilize the YKAN Indonesia report – "Scientific Design of a Resilient Network of MPAs for the Lesser SundaEcoregion" – March, 2011 – as the guiding document for the design of coupling MPAs with TURFs. This modeling will also be used to assess the sustainability and economic consequences of alternative fishing scenarios driven by different candidate private agreements (see 4 and 5 below).
c. **Alternative Certification Process**: For fisheries to become certified by the Marine Stewardship Council (among other labels), a traditional stock assessment is required as part of the formula and criteria for certification. One goal of this project is to create a new formula or paradigm that may allow for data poor fisheries to become certified under a different set of criteria. PNCI will work with the YKAN Sustainable Fisheries team to help develop, test and document those criteria and management approaches.
d. **Gears and Fishing Methodology**. Work with the team to advise on gear modifications and improvements and fishing techniques that help move the relevant fisheries towards a more sustainable, yet profitable, harvest regime.
e. **Controlling harvest through private agreements**. Advise the team on how to craft, use and enforce private agreements with fishermen or groups of fishermen to guide them in targeting and catching the desired species, size and gender in the appropriate locations and seasons. In addition, advise on how to use private agreements as disincentives for fishermen to harvest unintended species and bycatch.

2. TECHNICAL FISHERIES MANAGEMENT SUPPORT

Tasks included in Technical Fisheries Management Support function include, but are not limited to:

1. Provide the YKAN Sustainable Fisheries Program with advice on fisheries management approaches, based on ecological and socio-economic perspectives.
2. Provide the YKAN Sustainable Fisheries Program with advice on data-poor stock assessment, considering status and developments in Indonesia's fisheries management framework.
3. In consultation with the Director of the YKAN Sustainable Fisheries Program, will participate in, and initiate fishing ground / supply line surveys of the YKAN Sustainable Fisheries Program
4. At the request of the Director of the YKAN Sustainable Fisheries Program, will co-facilitate visits of program partners.

5. Will represent the YKAN Sustainable Fisheries Program at meetings as requested by the Director.
6. Assist the Director with trainings (as a resource person), planning and reporting as requested.

III. SPECIFIC TASKS

1. DATA COLLECTION

Tasks included in Data Collection function include, but are not limited to:

a. Providing technical support for programmatic activities of the YKAN Sustainable Fisheries Program
b. Assist employees of private sector partners with data collection, including data entry at facilities of private sector partners.
c. Coordinate trainings on data collection, coordinate events (donor visits, exchanges, etc) as tasked by the YKAN Fisheries Program. Provide reports on facts and figures for each events (attendancy, expense reports, etc.).
d. Sourcing of technical supplies for the YKAN Sustainable Fisheries Program. This may include computer hardware and software, weighing scales, measuring boards, GPS receivers, etc.

2. GATHER FOR PRIVATE SECTOR INVOLVEMENT

Tasks included in gathering Private Sector Involvement function include, but are not limited to:

a. Generate site specific data collection protocol.
b. Organize fish landing observations and monitoring, including but not limited to contacting fish companies to confirm landing date and time, informing the fisheries team on offloading details, and other logistics regarding landing and offloading activities.
c. Learn fish identification by looking through the reference collection and other means.
d. Distribute publications created by the program, including ID guides, assessment tool, cheat sheets, posters and other supporting materials and documentation.
e. Assist in identifying unidentified species using taxonomic keys.
f. Monitor fish landing, including and not limited to help graders conduct fish identification, help manage data collection during receiving, source materials to support the system such as barcode stickers, help take photographs of fish species, and other activities to ensure the accuracy of data.
g. Deploy Spot Trace on Kupang, Probolinggo, Lamongan, Dobo, Sawu, Sorong based vessels, and other areas based vessels.
h. Monitor the usage and location of each Spot Trace device that have been deployed.
i. Source, create and manage resources for data collection, including but not limited to computer usage guide, fish ID guide and other materials that might be needed to conduct data collection.
j. Scout initial contact persons, local partners and private sector partners in field sites

k. Establish, maintain and heighten relationship with partners in Bali and other area. Partners include, but not limited to companies, captains, workers, crew member, fish traders, and others involved in the supply chain of the program's target fisheries.
l. Scout and initiate new partnership with private sector in Bali and other areas.

m. Arrange data collection program in project's field sites. Arranging data collection program includes but not limited to looking for companies to establish partnership with, creating and arranging cash for data contract, conducting training with graders to be able to collect data to our program's standards.
n. Attend tuna or I-fish related meetings and trainings.
o. Establish collaboration with other NGOs working in tuna fishery especially in regards to data collection.
p. Create cheat sheets, including but not limited too, taking fish pictures, compiling key identifiers from taxonomic key.
q. Create supporting documentation for the program, including, but not limited to poster translation, promotional videos.
r. Create output materials on the fishery project, including but not limited to fish ID poster, cheat sheets, animations, videos, etc.
s. Regular and request based translation work, including but not limited to weekly update, fishery related documents, etc.
t. Maintain the project's google drive and update the documents, especially downloadables accordingly.
u. Deploy laptop, smart phones, tablets and other items to track Spot Trace and aid collaboration with traders and enumerators in different sites.
v. Organize meetings and trainings to villagers in field sites about the fisheries program or anything related to the program. Organize meetings includes identifying important people to invite, arranging food, preparing meeting materials and other logistics to ensure the efficacy of the meeting.
w. Organize meetings and trainings to government officials in field sites about the fisheries program or anything related to the program. Organize meetings includes identifying important people to invite, arranging food, preparing meeting materials and other logistics to ensure the efficacy of the meeting.
x. Take part in fishing trip and observe on-board fishing activities.

3. **OPERATE CREW-OPERATED DATA RECORDING SYSTEM (CODRS)**

Tasks included in CODRS include, but are not limited to:

1. On-site research to identify areas with target species vessels and establish relationship with initial contact persons and local partners to identify captains/crews who are interested in involvement of data recording system with YKAN.

2. Initiate recruitment of captains to join CODRS program.
3. Deploy the equipments for CODRS consist of Spot Trace, Camera and measuring board.
4. Support on administration of YKAN contract with captains involved in CODRS program.
5. Conduct training for CODRS participants and regular monitor and evaluation on data collection processes including, but not limited to, maintain close relationship and communications with participants, regular visits and on-site meeting and provide feedback and enqueries on disputed data.
6. Serve as troubleshooter for any problems and conduct maintenance and replacement of equipments whenever its necessary.
7. Collecting data from participants, interpreting the pictures to record species and sizes and input those data into the database
8. Validate data and clarify with data sources for any confusion
9. Maintain and store data collected at YKAN NAS.

4. **SET UP DATABASE PROGRAM**

Tasks included in Set Up a Database Program function include, but are not limited to:

1. Develop and maintain a web-based portal for entry of fisheries data, based on I-Fish (Postgresql, PHP, R).
2. Maintain a cloud server that hosts I-Fish2.
3. Assist project staff with data entry, solve problems.
4. Conduct trainings on data entry.
5. Participate in I-Fish user meetings.
6. Conduct high-level Data verification
7. Develop serial Reports by WPP, by fishing gear and guidelines such as Fish Identification and Assesment guideline.

List of Report Deliverables:

1. Comparison length-based assessment of snapper fisheries in 2020 and 2023 covering WPP/ FMA 711, 712, 713, 715, 718 and 573

The CODRS (Crew-Operated Data Recording System) program repetition is implemented in Fisheries Management Area (FMA) 712, 713, 715, and 718 to ensure that the collected data accurately reflects the current state of fisheries in these regions. This program will focus on the most productive gear types and vessel categories to obtain representative sample sizes. After one year CODRS implementation, we can collect comprehensive data on the sample size of 16 species priorities of snapper fisheries across specific fleet segment and landing site in each FMA. This report aims to present a length-based analysis comparing the 2023 data with the 2020 Holistic Assessment results. In years 2 and 3 of CODRS implementation, the focus will narrow to select FMAs, concentrating efforts on the most productive fishing areas (FMAs 573, 711, 712, 715, and 718) and targeting the main gear types and vessel categories yielding the largest samples.

2. Length-Based Assessment of the Coastal Fisheries in Raja Ampat (Misool island), MHA Werur, and MHA Malaumkarta

The output will be a comprehensive report on the baseline stock assessment of coastal fisheries in Raja Ampat, MHA Werur, and MHA Malaumkarta, utilizing data collected through the Crew Operated Data Recording Systems (CODRS). This report will provide a detailed overview of the current status of fish stocks in these regions, highlighting key metrics such as species composition, population densities, and biomass estimates. By analyzing this data, we aim to establish a foundational understanding of the fisheries' health and inform future management decisions. Additionally, this baseline assessment will support the development of a fisheries management plan through the TURF reserve approach, ensuring that sustainable practices are tailored to the unique ecological and socio-cultural contexts of each area. This assessment will serve as a critical reference point for measuring the impact of sustainable fisheries management practices implemented over the grant period and beyond.

3. Tuna White Paper1: Evaluation on FADs utilization <12nm and >12nm for Walton projects

Utilizing FADs is a common practices of tuna fisheries in Indonesia. MMAF regulates FADs in >12nm, including the allocation, while FADs <12nm are under provincial government's authority. Utilizing FADs in fishing activity increases the CPUE and reduces fuel consumption for the vessel. Therefore, Provincial governments try to optimize the deployment of FADs in their water areas. Our findings in the field show that many vessels operated and deployed their FADs in both <12nm and >12nm. The existing situation describes the complexity of tuna fisheries in Indonesia Archipelagic Waters.

YKAN plays an important role in monitoring tuna vessels through CODRS (Crew-Operated Data Recording System) program since 2019. We monitored more than 100 tuna vessels operated in archipelagic waters until 2023. In its data recording, CODRS enables separation between FADs and non-FADs fishing activity and identification of fishing location through spot trace. YKAN's study conducted in 2024 (under TC Phase 2) resulted smaller median of YFT caught by handline operated in FADs is 37cm, and 38cm caught by pole-and-line, while the size of YFT caught in non-FADs are 86cm and 44cm for handline and pole-and-line respectively. However, comparison study about tuna fisheries <12nm and >12nm combined with fishing activity in FADs and non-FADs are still lacking. Since tuna are migratory species, collaboration management between national and provincial governments is critical to maintain the sustainability of the business and the resources. This report will describe the impact of utilizing FADs in both <12nm and >12nm. The findings of this study are expected to provide recommendations for FADs management in <12nm and >12nm.

4. Tuna White Paper2: Uncertainties in assessing fishing capacity and fishing effort in diverse and dispersed fisheries - Experiences from tuna fisheries in the archipelagic waters of Indonesia for Walton projects

Tuna fisheries in Indonesia is complex in term of scale, the distributions, and their fishing operation related to their adaption to the availability of the resources. Indonesian fishers can catch tuna from water

areas less than 4nm, usually caught by small scale fishers, to high seas that mostly dominated by large scale fishing operation. Their landing areas are dispersed from fishing port to remote areas that are difficult to access. This affects the accuracy of active fishing vessels data in Indonesian waters. Small scale to medium fishers have high dependency to the availability of the resources during their fishing operation. This complex situation is being a challenge to assess fishing capacity and fishing effort. The static information on the number of vessels or gears will affect the use of the fishing effort as raising factor to estimate the total extraction of tuna fisheries.

$Effort = BAC \; x \; F \; x \; A$ (equation 1, source https://www.fao.org/4/Y2790E/y2790e09.htm)

where:

BAC= Boat Activity Coefficient,

F= total number of boats,

A= a time raising factor

This white paper is aimed at understanding the complexity of fishing effort in Indonesia tuna fisheries. Findings on this study are expected as inputs for fishing effort estimation, specifically on the BAC and A values (equation 1).

5. Length-Based Assessment of the Coastal Fisheries in Teon Nila Serua for AIF project

This report is expected to serve as a baseline survey for designing and developing the Territorial Use Right for Fisheries (TURFs) reserve and Conservation Agreement approaches for fisheries management in Teon Nila Serua. The report will provide a detailed overview of the current status of fish stocks, catch composition, length-based assessments, and other findings based on our CODRS data collection. With the spot trace data collected, the report is expected to also provide recommendations for a Zoning map with TURF area delineation.

6. Frame survey report for Koralestari Project

Currently, we are assessing three potential project areas within or around the Marine Protected Area (MPA) at Lingga Islands (WPP 711), Berau (WPP 716), and the Savu Sea (WPP 573). The criteria for selecting these areas are based on catch production, fishing fleet, species composition, and supply lines. This report serves as an initial document to identify which fisheries options may advance towards a sustainable fishery certification scheme. Therefore, the report should include: [a] Species of fish caught, [b] Estimates of catch quantities, [c] Types of fishing gear used, [d] Specific locations of fishing activities, [e] Brief information on catch composition in each fishery, [f] Data on bycatch, [g] Outline of the fishing effort involved (fishing season, number of trips, duration, and intensity), [h] Fishing practices, [i] Environmental conditions related to habitat types in each fishery, and [j] Relevant socio-economic data related to fishing operations, such as the economic impact on local communities. Finally, the report should also include contact information for all stakeholders and photos derived from the data collected during the survey.

7. Re-assessment snapper fisheries stock status or conduct preliminary stock assessment of other coral-related fisheries for Kolarestari Project

Based on the results of the pre-assessment and frame survey in **Activity 6**, the data collection will continue through the CODRS program in the selected area. After one year of CODRS implementation, comprehensive data on fisheries sample sizes will be collected. This report aims to reassess the length-based assessment of fisheries targeting snappers, groupers, and emperors in selected WPPs, or conduct preliminary stock assessments of other coral-related fisheries. It is intended to serve as a baseline survey for designing and developing participation of coral reef fisheries in ecolabel-certified supply chains. The report will provide a detailed overview of current fish stock statuses, catch compositions, length-based assessments, and other findings from our CODRS data collection. Furthermore, utilizing the spot trace data collected, the report is expected to provide recommendations for a fishing zoning map within or around the MPA area.

8. Supply chain report for Kolarestari Project

This report would serve as baseline to support setting up impact investment project. This information will be compiled and serve as a baseline to support the development of sustainable fishery business proposal for impact investment project. This report will provide all supply chain of coral-related fisheries products from selected area (**Activity 6 and 7**), including: [a] Product Types: List of products (live, fresh, frozen, dried), [b] Price & Volume Estimates: Estimated prices and production volumes, [c] Supply Line Mapping: routes and connecting points, [d] Transport Information: Shipping methods and destinations, [e] Market Details: Domestic and export market specifics, [f] Retail Value: Estimated retail prices, [g] Cold Chain Analysis: Overview of cold chain logistics for fisheries. And include all relevant data and maps.

IV. EXPECTED OUTPUT

Within contract period (1 year), consultant is expected to submit the deliverable report below:

- Number and list of participating vessels per year in the YKAN CODRS program, assuming that each vessel participates for at least a full year.
- Technical reports with findings on exploitation status of snapper fisheries in Indonesia Fishery Management Areas 711, 712, 713, 715, 718 and 573
- Comparison length-based assessment of snapper fisheries in 2020 and 2023 covering WPP/ FMA 711, 712, 713, 715, 718 and 573
- Tuna White Paper1: Evaluation on FADs utilization <12nm and >12nm.
- Tuna White Paper2: Uncertainties in assessing fishing capacity and fishing effort in diverse and dispersed fisheries - Experiences from tuna fisheries in the archipelagic waters of Indonesia.
- Re-assessment snapper fisheries stock status or conduct preliminary stock assessment of other coral-related fisheries for Kolarestari Project
- Support the development of frame survey and supply chain report for Koralestari project

- Based on the CODRS data collected, consultants should support the development of reports for the following:
  1. Length-Based Assessment of coastal fisheries in Teon Nila Serua (TNS)
  2. Length-Based Assessment of the Coastal Fisheries in Raja Ampat (Misool island), MHA Werur, and MHA Malaumkarta

V. CONTRACT PERIOD

This consulting activity will be carried out for one effective year, start from **1 August, 2024 to July 31, 2025** and can be extended according to YKAN's needs. The contract value that will be given to the selected local consultant during the working period in total of **USD 285.000**

VI. CONTACT PERSON

Interested applicants (eligible companies who have licenses to work in Indonesia) should send full proposal and budget as a team with details of day rate for each consultant to harxylen.purnomo@ykan.or.id with cc to gperdanahardja@ykan.or.id and submit the proposal through https://procurement.ykan.or.id/.