

STDF PROJECT PREPARATION GRANT (PPG)

APPLICATION FORM

The Standards and Trade Development Facility (STDF) provides Project Preparation Grants (PPGs), up to a maximum of US\$50,000, for the following purposes (or a combination thereof):

- application of SPS-related capacity evaluation and prioritization tools;
- preparation of feasibility studies that may precede project development to assess the potential impact and economic viability of proposals in terms of their expected costs and benefits: and/or
- preparation of projects proposals that promote compliance with international SPS • requirements, for funding by the STDF or other donors.

Applications that meet the STDF's eligibility criteria are considered by the STDF Working Group, which makes the final decision on funding requests. Complete details on eligibility criteria and other requirements are available in the *Guidance Note for Applicants*. The completed application should be submitted though the <u>STDF online application system</u>.

PPG Title	Reducing histamines in Pole-and-Line and Handline caught Tuna in Indonesia	
Budget requested from STDF	\$48,000	
Full name and contact details of the requesting organization(s)	International Pole and Line Foundation; info@ipnlf.org	
Full name and contact details of contact person for follow-up	Shannon Hardisty, Indonesia Strategy Manager, shannon.hardisty@ipnlf.org	

I. **BACKGROUND AND RATIONALE**

1. What is the purpose of this PPG? Explain whether it is requested to: (i) apply an SPS-related capacity evaluation or prioritization tool; (ii) prepare a feasibility study (prior to project development) to assess the potential impact and economic viability of proposals in terms of their expected costs and benefits; and/or (iii) prepare a project proposal for consideration by the STDF or other donors?

The intention of this PPG is to develop a project proposal by assessing Indonesian fisheries with relatively high levels of histamine in the tuna at landing and proposing potential solutions such as experiential training in fishing and harvest handling best practices, mobile histamine testing, and strategic structural improvements to vessels and their operations to maintain an efficient at sea cold chain. The project proposal would aim to improve the quality, hygiene and ultimate socio-economic value of tuna landed by Indonesian small scale one-by-one fishers.

The International Pole and Line Foundation (IPNLF) is the only organisation committed to developing, supporting and promoting the world's responsible pole-and-line, handline and troll tuna fisheries (collectively known as 'one-by-one' tuna fisheries), whilst also working to safeguard the livelihoods of the coastal communities that they support. Guided by its 2020-2025 Strategic Plan, IPNLF's mission is to empower responsible fisheries, which give back to the seas and the people that depend on them, and IPNLFs vision is to ultimately facilitate a world with thriving fisheries that work in balance with nature by catching one fish at a time.

IPNLF has been implementing various activities on the ground in Indonesia for nine years, applying solutions to cold chain issues, post-harvest handling best practice training and capacity building workshops, and enabling multiple fisheries and processing plants to obtain international certifications. IPNLF's close engagement with one-by-one fishers has highlighted the issue of histamine development in tuna, which is especially taking place during at sea activities.

This PPG would allow IPNLF to survey and prioritise appropriate fisheries by carrying out site visits and histamine field tests on one-by-one caught tuna while conducting interviews with relevant stakeholders to also understand their willingness to engage in such an intervention into the future, and assessing the relative market opportunities that could be developed among IPNLFs <u>global</u> <u>network of private sector member companies</u> if tuna quality improvements were achieved.

This PPG will also facilitate a more in-depth analysis of the local vessels, to inform the prioritisation of interventions based on their estimated costs and benefits. Assessed potential solutions will include, but not be limited to, experiential training of fishers at sea in fishing and harvest handling best practices, trialling mobile histamine testing devices to not only develop a baseline but also to track successes and the consistency of application beyond the project timeframe, and implementing strategic structural improvements to vessels and their operations to facilitate and maintain an efficient at sea cold chain. Results will be submitted to the STDF, in the form of a well-informed project proposal aiming to strategically improve the quality, hygiene and ultimate financial value of tuna landed by Indonesian small scale one-by-one fishers. Successes will benefit local ecosystems through achieving less wasteful use of resources, and it will benefit communities in a "for profit conservation" mechanism of requiring less fish to achieve livelihood demands while also encouraging use of the most responsible tuna fishing gears and methods available. The ensuing project would help address the unnecessary waste of fish and resultant financial value that is currently compromising livelihood opportunities and their resilience to climate change, pandemics and other shocks.

Uniquely for an NGO, IPNLF has a membership structure which spans every node of one-by-one tuna supply chains, from fisher associations and local processors, through to exporters, international brands and retailers. Small-scale fisher associations that become IPNLF members do so at zero financial cost. IPNLF is constantly fighting for greater equity and integration of such small-scale fisheries within fisheries management and seafood trade mechanisms and policies, as a result we fully recognise that cost can too often be a primary barrier to market entry or engagement. As such, we invite small-scale tuna fisheries using responsible one-by-one fishing methods to join IPNLF so they can freely benefit from our projects, policy interventions, and various opportunities among our global network of experts and commercial seafood companies. This allows IPNLF to not just implement changes on the water and at local landing sites, but to also facilitate fisheries stakeholders to achieve international trade and export opportunities that can result in fishers and local stakeholders being economically uplifted.

IPNLF will strategically work with our private sector members in Indonesia and internationally in developing this PPG. Should IPNLF and partners later receive a full project grant from STDF, IPNLF's membership network will be instrumental in achieving STDF's ultimate aim of facilitating international trade through improving SPS-related conditions in selected fisheries. The PPG would also explore the possibility of integrating private sector members of IPNLF, who would benefit from reduced histamine issues in one-by-one fisheries, to provide cofinancing for the full project grant.

2. Explain the key SPS problems and/or opportunities to be addressed. Clarify why these issues are important, with attention to market access and poverty reduction. Describe, if relevant, how these issues relate to SPS priorities in the Enhanced Integrated Framework's Diagnostic Trade Integration Studies (DTIS), the findings of SPS-related capacity evaluations, national poverty reduction strategies, sector development strategies or policies, etc. See Qn. 7. (b) – (d) of the Guidance Note.

Tuna muscle tends to have high levels of histadine to support the high speed, long duration, and burst swimming typically seen in tuna species. Naturally occurring microorganisms present in a fish's gills and gut during its lifetime can result in the decarboxylation of free histadines (the process through which histadines evolve into histamines). However, histamines are rarely found in fresh fish due to natural defence mechanisms preventing the decarboxylation process (Debeer et al. 2021). The histamine levels tend to accumulate as the fish decomposes after death; if tuna is not immediately chilled below 4 degrees Celsius or frozen while on the vessel, histamine levels may rapidly exceed safe levels, especially in warm tropical regions. Histamine production can continue when stored on or near refrigeration temperatures once the enzyme has formed and the rate of production can increase with temperatures of 21.1 degrees celsius or higher. Once the histamine enzyme has been established it cannot be destroyed by freezing, merely halting the production of more histamine, which will be reactivated once thawing occurs. Similarly, cooking the fish only partially eliminates risk by preventing further production, but not destroying the enzyme. Testing for histamines is essential as harmful levels can build up before any visible signs of spoilage can be seen.

Histamine is a biogenic amine and food safety hazard due to its toxicity (Debeer et al. 2021). There are a range of side effects that histamine can have on consumers, some of which are: dilation of blood vessels leading to hypotension, headaches, haemoconcentration, hives, abdominal cramps, diarrhoea, nausea, and vomiting. Histamine is the only biogenic amine with regulatory statues around the world, for example, European legislation has maximums of 200 mg/kg and 400 mg/kg in fresh fish and fish products treated in brine respectively; it is also the only biogenic amine regulated by HACCP Guidance (Visciano et al. 2014, Debeer et al. 2021). The government of Indonesia has issued a national standard for Indonesian frozen tuna exports, meaning companies have to comply with a maximum of 100ppm histamine content, or match the requirements of the destination country. High histamine levels result in rejection of fish by processors, effectively reducing fisheries access to more lucrative international markets and creating a barrier to international trade. Through this PPG, IPNLF and project partners can identify corrective and preventative measures to fish handling and cold-chain practices in Indonesia's artisanal one-by-one tuna fisheries which will result in less histamine production; ultimately removing a barrier to international trade opportunities which could uplift the economic returns for small-scale fisheries stakeholder and fishers.

Tuna fisheries in Indonesia account for approximately 17-22% of global tuna production and is the third largest fishing commodity in Indonesia, but histamine levels present a persistent challenge to the export of Indonesian tuna products. Indonesia's small-scale fisheries (of which handline and pole-and-line are a part) account for 90-95 % of national fisheries production and it has been estimated that the total value of exported fish commodities reached USD 9.5 billion in 2019 (Ariansyach 2017, FAO 2014, FAO 2018, Warren and Steenbergen 2021). Many small-scale fisheries operate close to and within sight of the shore, particularly in areas where there are steep drop-offs into deeper water nearby. Although tuna species are highly migratory, each or multiple species can be encountered within daily reach of small coastal communities for many months of a year in a single location. As a result, there are many small-scale fisheries landing tunas on small boats using simple one-by-one fishing gears and selling their harvests into high value export markets with the support of IPNLF and its member companies¹ Despite the importance of fisheries to coastal livelihoods, approximately 7.87 million fishers in Indonesia are still living below the national poverty line, with many dependent on fishing for both food security and income (Adhuri et al. 2016). Given the dependence on tuna fisheries to critically support millions of livelihoods, particularly among income insecure households, barriers to market and rejection of products have very severe consequences. Inefficient resource use is also wasteful and exacerbated biodiversity impacts only reduce the resilience of fishery reliant livelihoods to climate change, pandemics and other environmental or trade shocks.

The risk of histamine formation in tuna is highest whilst the fish is still onboard the vessel. Many fleets IPNLF engages with are only doing single day, or relatively short, fishing trips and so they can achieve good cold storage onboard with ice to maintain quality. In fact, when handled properly, handline caught tuna can provide the best quality possible across all fleets as each fish is captured immediately – the active nature of the fishing gear means the fish is not left to soak and recollected hours later (as in longline and net fisheries). It is important to note that there is wide variation in the structure of one-by-one vessels which can, in some cases, be linked to the economic context of landing sites. Additionally, Indonesian landing sites also display high levels of economic and infrastructural variability. Therefore, in order to ensure any histamine-based intervention will be

¹ Please also see our <u>Sourcing Transparency Platform (STP)</u> which provides a global overview of how broadly this is happening across out membership and projects.

impactful and beneficial, it is important to identify appropriate fisheries in which to implement it². Those fisheries must also be strategically prioritised, and the solutions to be implemented must be customised to match each local context while still effectively minimising histamine accumulation.

3. Which government agencies, private sector, academic or other organizations support this PPG request? Letters of support from each of these organizations would be advantageous (Appendix 1). See Qn. 7. \in of the Guidance Note.

Ministry of Marine Affairs and Fisheries Republic of Indonesia (KKP/MMAF)

Asosiasi Perikanan Pole & Line dan Handline Indonesia (AP2HI) - an Indonesian fisheries association of pole and line and handline vessels.

Anova (Indonesia) - Private sector processor/exporter from Indonesia who source from Indonesia's pole-and-line and handline fisheries.

Caterer's Choice (United Kingdom) - a private sector brand from the UK which sources from Indonesia's pole-and-line fishery.

World Wise Foods (United Kingdom) - a private sector distributor from the UK which sources from Indonesia's pole-and-line fishery.

4. How does this PPG complement and/or build on past, ongoing and/or planned national programmes and/or donor-supported projects? See Qn. 7. (f) of the Guidance Note.

IPNLF is currently a key NGO implementing a USD850,000 grant of the Walton Family Foundation in Indonesia. Whilst the grant addresses a range of issues, a component of the work includes cold chain and post-harvest handling improvements. We are also able to leverage innovative e-monitoring and traceability technologies to further opportunities for premium value "storied fish". We are already testing onboard cameras, electronic catch reporting applications and other technologies (e.g. FAME) to improve at sea monitoring, traceability. and evidence of their compliance with measures among small scale tuna vessels. Furthermore, IPNLF will be conducting workshops with fishers and processors on various fishery best practices, as well as producing SOPs to be adopted in multiple ports and vessels. Consequently, IPNLF is strategically positioned to support this work, to contribute co-financing, and to be able to continue supporting health and safety related activities with established partners both within Indonesia and across our global membership of companies that operate throughout global seafood supply chains. While there are some synergies for this project available through the current Walton project, that project also covers many non-related actions and will only enable a few training events in locations where IPNLF already have offices or field enumerators in Indonesia. Through the herewith planned new grant, IPNLF would aim to greatly expand the scope of efforts to improve harvest handling, conduct practical training on the water, truly adapt local practices and operate in additional locations which would be prioritised for intervention through the baselining achieved during the proposed PPG phase.

IPNLF has also recently been awarded an Ocean Innovation Grant of USD250,000 from the UNDP in Indonesia, through which we are partnering with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (German Development Agency) and Indonesian businesses to install solar-powered ice making machines in remote areas of Indonesia. Availability of ice is a key component of preventing histamine development in tuna whilst being transported from harvest location to port, therefore acting as a barrier to market for many one-by-one Indonesian tuna fishers. The provision of ice will improve the quality (histamine tests as one of the measures) and value of the engaged small-scale fishery's harvests. Pairing the solar production of ice with the trainings, support and vessel adaptations envisioned through this project will increase mutual benefits and successes of this initiative aiming to improve the market opportunities and livelihoods of rural Indonesian fishing communities. Any project outcomes evidencing improvements to harvest quality coming from small-

² An example of such performance improvements we've achieved on small tuna fishing boats recently can be viewed through <u>this video</u>.

scale fleets can help us evidence their good performance and positively differentiate them in markets, including through our STP.

Through the second phase of the Common Oceans Program which is focused on international efforts in support of sustainable management of marine resources and biodiversity conservation in the ocean areas beyond national jurisdiction (ABNJ), IPNLF is also expected to receive finance supporting harvest handling and value improvements, alongside skipper trainings in various best practices. This funding will be received through a contract (LoA) with the UN Food and Agriculture Organization (FAO). The activities undertaken can represent complementary co-finance for this project, while IPNLF will also provide in kind technical support informed by our team's experience conducting training in cold chain best practices (from vessel to shelf) in other countries such as Maldives, Oman, the Azores, and South Africa. Finally, we have enabled multiple small-scale fisheries <u>achievement of MSC Certifications</u>, despite them facing more financial obstacles than the large, subsidised fleets they compete with in the market.

IPNLF members have previously had to cease sourcing fish from particular fisheries in Indonesia due to unacceptable histamine levels leading to high volumes of rejects. This poses a barrier to international trade which can easily be addressed through corrective measures in fish handling and cold-chain practices which would be the proposed activities of a full project grant, which can also leverage the <u>IPNLF Fisheries Improvement Toolbox (FIT)</u> as a mechanism for engaging our private sector membership. In essence, we are already working hard to evidence good practice among the small-scale tuna fisheries we work with, and this project could complement a range of them.

5. Have you discussed this PPG request – or funding for the project proposal which would result from it – with any potential donors (bilateral, multilateral, Enhanced Integrated Framework, etc.)? If so, provide details below and indicate potential sources of funding for the resulting project. See *Qn. 7. (g)* of the Guidance Note.

We have not yet discussed this with other potential donors, but if successful in securing this PPG, we will be able to leverage that in discussions with many potential co-financers ranging from many philanthropic donors to private companies within our membership network both within and beyond Indonesia.

6. Briefly explain how gender and environmental issues are relevant for this PPG and, if appropriate, how they will be addressed.

<u>Gender Issues</u>

Women account for nearly half the global fisheries workforce. Approximately 42% of the labour force in Indonesian fisheries are women. Women dominate the role of fish sellers (72% of in-port sellers are women), as well as occupying low-end value chain roles such as grading and sorting. However, women's contribution to the fisheries sector remains severely under-recognised and as a result they face insecurity in their roles and are disproportionately affected by loss of livelihoods and jobs. Consequently, any reductions in export quantities and values of tuna will adversely and disproportionately impact women.

Tuna that do not meet the standards for export are typically sold to informal markets for local consumption. Women are usually the main caregivers of a household and are often responsible for the family's food and nutrition. Therefore, if lower quality fish purchased at informal markets leads to histamine poisoning, it will likely fall to the female head of the household to take care of the ill member, thus limiting her ability to carry out other key responsibilities and contributions to household income and wellbeing. Whilst this PPG may not directly address gender issues, it may inform appropriate gender-based indicators throughout a larger intervention and the sought improvements will certainly provide benefits also to women.

Environmental Issues

Understanding the risk of histamine development in the tuna supply chain, while identifying fisheries where the risk is greatest and why, will allow for effective interventions that reduce the amount of rejected fish - the environmental benefits of which are two-fold. Firstly, one-by-one fishing is the most environmentally responsible method of tuna fishing with low levels of bycatch and plastic

pollution, so promoting the competitive performance of this fleet sector will minimise broader ecosystem impacts resulting from fishing activities. By improving the access to premium markets among such fisheries, through ensuring they meet HACCP standards, will ensure more environmentally responsible fish will be available to premium markets, and it can be positively differentiated from other products through its presentation on the <u>IPNLF Sourcing Transparency</u> <u>Platform (STP)</u>.

Secondly, tuna is both a key source of global fish consumption (remaining an inexpensive source of protein), whilst also being a top predator in marine ecosystems. It is important to reduce the amount of rejected tuna and so limit the unnecessary removal of the species from ecosystems whilst still meeting global nutritional needs.

II. IMPLEMENTATION & BUDGET

1. Who will take the lead in implementing this PPG? If particular national experts and/or international consultants are proposed, attach a copy of their Curriculum Vitae and record of achievements (Appendix 2). If no names are provided, the STDF will provide a shortlist of consultants if the PPG request is approved.

An expert consultant will take the lead in implementing this PPG. However, that person will be ably supported and informed through various efforts, on site and remotely, by IPNLF and AP2HI staff as below:

Name	Title	PPG support	
Martin Purves	IPNLF Managing Director	In kind technical support	
Roy Bealey	IPNLF Fisheries Director	In kind technical support	
Maskur Tamanyira	IPNLF Indonesia Fisheries Specialist	Local support preparing and informing PPG outputs	
Craig Turley	IPNLF Fisheries Consultant	Practical knowledge exchange from other IPNLF projects	
Ilham Alhaq	AP2HI Project Manager	Local industry representation and coordination support	
Consultant TBD – a shortlist will be appreciated	PPG Development Aid	PPG structuring and development expert	

2. In the table below, briefly describe the main activities to be carried out under this PPG and specify who would be responsible. Provide an estimate of the budget required (e.g. for national/international expertise, travel and DSA of consultants, stakeholder meetings or workshops, general operating expenses, etc.).

Rapid tests will be conducted on the individual fish at sea and at the landing site to identify locations for the most impactful interventions. Generally, these rapid tests can be used at any node along the value chain as needed to track preservation along the route to the end consumer. More specifically, the sampling methodology will be developed in consultation with local fishery stakeholders, taking into consideration local conditions and the available budget.

The below table summarises the activities and costs expected for conducting site visits, meetings, interviews and conducting primary randomised histamine rapid testing on site in eight locations. This will not only help inform development of the resultant project proposal, it will enable local testing of selected rapid tests performance and enable an assessment of baseline conditions among the visited sites, to inform intervention locations and enable progress tracking against that baseline if the resultant project receives finance.

		Estimated Budget (US\$)			
Activity	Responsible	Unit	Number	Cost	Total
National Travel & DSA (8	IPNLF &				
sites)	Consultant	Sites	8	1000	8000
Histamine testing equipment					
& analyses (50/site)	IPNLF	Completed Tests	400	20	8000
Stakeholder meetings /	IPNLF &				
interviews	Consultant	Events/Engagements	8	625	5000
Local coordination and info					
gathering	IPNLF	Days	40	125	5000
	IPNLF &				
Proposal Drafting	Consultant	Days	30	600	18000
Overheads (<8.5%)	IPNLF				4000
Total value requested from					
STDF					48000
Cofinance					
IPNLF management in kind					
techinical oversight	IPNLF	Days	40	200	8000
Specific Walton Project					
support	IPNLF	Project cofinance	1	15000	15000
ABNJ/FAO value chain and					
skipper training project	IPNLF	Project cofinance	1	20000	20000
Total in kind & co-finance					43000
Total Project value					91000

Appendices

Appendix 1: Letters of support from each of the organizations supporting this proposal.

Ministry of Marine Affairs and Fisheries Republic of Indonesia (KKP/MMAF)

Asosiasi Perikanan Pole & Line dan Handline Indonesia (AP2HI) - an Indonesian fisheries association of pole and line and handline vessels.

Anova (Indonesia) - Private sector processor/exporter from Indonesia who source from Indonesia's pole-and-line and handline fisheries.

Caterer's Choice (United Kingdom) - a private sector brand from the UK which sources from Indonesia's pole-and-line fishery.

World Wise Foods (United Kingdom) - a private sector distributor from the UK which sources from Indonesia's pole-and-line fishery.

Appendix 2: Curriculum Vitae and record of achievements for any consultants proposed to implement this PPG.

Muhammad Maskur Tamanyira (Maskur)

Phone: +62 (0)812 8238 607 Email: maskur.tamanyira@ipnlf.org Nationality: Indonesian	
Project Position	Indonesia Project Lead
WORK EXPERIENCE RELEVANT TO THE PROJECT	 08/2022 - Current Fisheries Specialist – IPNLF Assist the implementation of YAYASAN IPNLF INDONESIA (YII) Program to develop, support and promote socially and environmentall responsible pole-and-line, handline and troll (collectively one-by-one) tuna fisheries, through specific programmes in the target area. Responsibilities include staff and programme management. Reports to the IPNLF Fisheries Director.
	 General Manager - PT. Isuma Developing an effective, efficient system and workflow for the aquaculture plan. Executing the scheme under PT. Isuma's fishponds unit by optimising the recently obtained resources to increase productivity.
	 10/2020 - 01/202 Project Leader, SEA Project - WWF Leading the team implementing the USAID - SEA Project, in line with the project's requirements in order to deliver the desired outputs. Directly responsible and reporting to the Chief of Party and Deputy Chief of Party for the management and administration of the project.
EDUCATION	2004 - 201 Bachelor of Science (Oceanography) , Diponegoro University, Semarang, Indonesia

ADDITIONAL SKILLS Further skills available on request from maskur.tamanyira@ipnlf.org

Martin Purves

Address: 6 Hamman Street, Stellenbosch, South Africa Phone: +27 (0)83 324 5828 **Email:** martin.purves@ipnlf.org Nationality: South African Project Lead **Project Position** WORK 8/2016 - Current Managing Director – IPNLF EXPERIENCE Leading IPNLF's work, collaborating with fisheries, governments, NGOs, **RELEVANT TO THE** industry and markets, to develop one-by-one fisheries through projects PROJECT that maintain and enhance the economic, social and ecological benefits of these fisheries while making connections to markets Responsibilities include staff and financial management, developing • strategies and partnerships. Reports to the IPNLF board of Trustees. • 07/2015 - 07/2016 **Fisheries Development Director – IPNLF** Leading IPNLF's work (collaboratively with fisheries, governments, NGOs, industry and markets) to develop pole-and-line fisheries through projects and activity that: (a) maintains and enhances the economic. social and ecological benefits of the fisheries and (b) increases and improves the global supply of pole-and-line caught tuna. The Fisheries Development Director supports, facilitates and acts as a driving-force for fisheries improvement, including helping achieve MSC (or third party) certification. EDUCATION 1988 - 1990 Bachelor of Science and Bachelor of Science Honours degree (Zoology & Animal Ecology), University of Stellenbosch, South Africa 1993 - 1995 Master of Science degree (Ecology): University of Stellenbosch, South Africa July 2005 – October 2005 **Certificate in Project Management: Principles and Methods of Project** Management for use in Business): University of Cape Town, South Africa ADDITIONAL Further skills available on request from martin.purves@ipnlf.org SKILLS

Roy Bealey

Address: Plot 35, Watamu, Kenya Phone: +44 (0)7555 373675 Email: roy.bealey@ipnlf.org Nationality: British

10/2019 - Current Fisheries Director – International Pole & Line Foundation (IPNLF) • Guiding IPNLF's program of promoting the triple-bottom-line performance and market competitiveness of one-by-one tuna
 Guiding IPNLF's program of promoting the triple-bottom-line performance and market competitiveness of one-by-one tuna
 fisheries among global seafood markets Supporting strategic policy interventions to ensure the critical needs of small scale one-by-one fisheries are protected throughout decision making processes of Regional Fisheries Management Organizations (RFMOs) Managing and supporting workflows & budgets of IPNLF's fisheries team while expanding scope both technically and geographically 03/2019 - 10/2019 Fisheries Operations & Value Chain Consultant - WECAFC / FAO Holistic assessments of fisheries and seafood value chains Developing practical opportunities to sustainably improve fisheries socio-economic benefits and climate change resilience Implementing opportunities through at sea fishing trials, improving harvest handling techniques, installing data collection technologies and promoting traceability to facilitate improved market access 12/2016 - 12/2018 Regional Coordinator - Caribbean Billfish Project - WCAFC / FAO Technical oversight & coordination for all project activities of FAO colleagues, international consultants, and partner institutions (IGFA, CI, 1 Skip Development, Wilderness Markets, CRFM, CBMC, CNFO) Project representative & liaison with governments, global OPP project partner organizations (WWF, FFA, BOBP, CI), various fishery authorities, diverse fishery sector stakeholders and donors (World Bank / GEF) Technical implementation of on-site pilot projects to test innovative
fishery management mechanisms while providing practical proof of concepts at sea and on shore 2012 - 2014 Master of Science degree in Marine Fisheries Science, Rhodes

Further skills and list of publications available on request to roy.bealey@ipnlf.org

Craig Turley

Address: 23 Springfield Park Road Horsham, UK RH12 2PW Phone: +44 (0)7701 054439 Email:Craig.turley@ipnlf.org Nationality: British

Project Position	Project Consultant
WORK EXPERIENCE RELEVANT TO THE PROJECT	 Display the provided the provi
EDUCATION	Zoology BSc University of Exeter, UK
ADDITIONAL SKILLS	Practical experience in one-by-one fishing techniques (rod & Reel, Pole & Line and Troll), Practical experience in fish handling.

Ilham Alhaq

Address: Jl. Limun No. 38, Pisangan, Ciputat, 15419, Tangerang Selatan, Indonesia Phone: +62 (0)82126981028 Email: alhaq28@gmail.com Nationality: Indonesian

Project Position	AP2HI Project Partner
WORK EXPERIENCE RELEVANT TO THE PROJECT	01/2018 - Current Project Manager – Indonesian Pole & Line and Handline Fisheries Association (AP2HI) The Indonesian Pole & Line and Handline Association (AP2HI) is an association of fisheries businesses engaged with pole & Line (Huhate) and Handline tuna fishing operations. This association strongly supports the sustainability of tuna fisheries in Indonesia through the pole-and-line and handline fisheries improvement project (FIP), which is successfully achieving the Marine Stewardship Council (MSC) certification in 2021. My responsibility is to make sure the FIP implementation on the ground is in line with the MSC certification principles (sustainable stock, minimizing environmental impact & effective management), which in the process includes intensive engagement with stakeholders such as the government and the private sector.
	01/2016 - 01/2018 Communication & Training Coordinator - Indonesian Pole & Line and Handline Fisheries Association (AP2HI) • Coordinating the plan and implementation of AP2HI's training curriculum, including liasing with small-scale fishers, fishing co- operatives and SMEs.
	 Developing and implementing AP2HI communication strategy Develop and establish branding and promotion strategy and implementation for Indonesian pole and line tuna.
EDUCATION	2006 - 2013 Bachelor Degree (International Relations Science), Padjadjaran University, Indonesia
	2021 - Present MSC Technical Consultant, Marine Stewardship Council
	2020 ISO 9001: 2015 Awareness, Understanding, and Implementing Quality Management System Training, Lembaga Pengembangan dan Konsultasi Nasional (LPKN)

Further skills available on request from alhaq28@gmail.com