

IDH, the Sustainable Trade Initiative

Aquaculture Program

Farmers In Transition (FIT) Fund

2017 – 2020 Prospectus



Contact

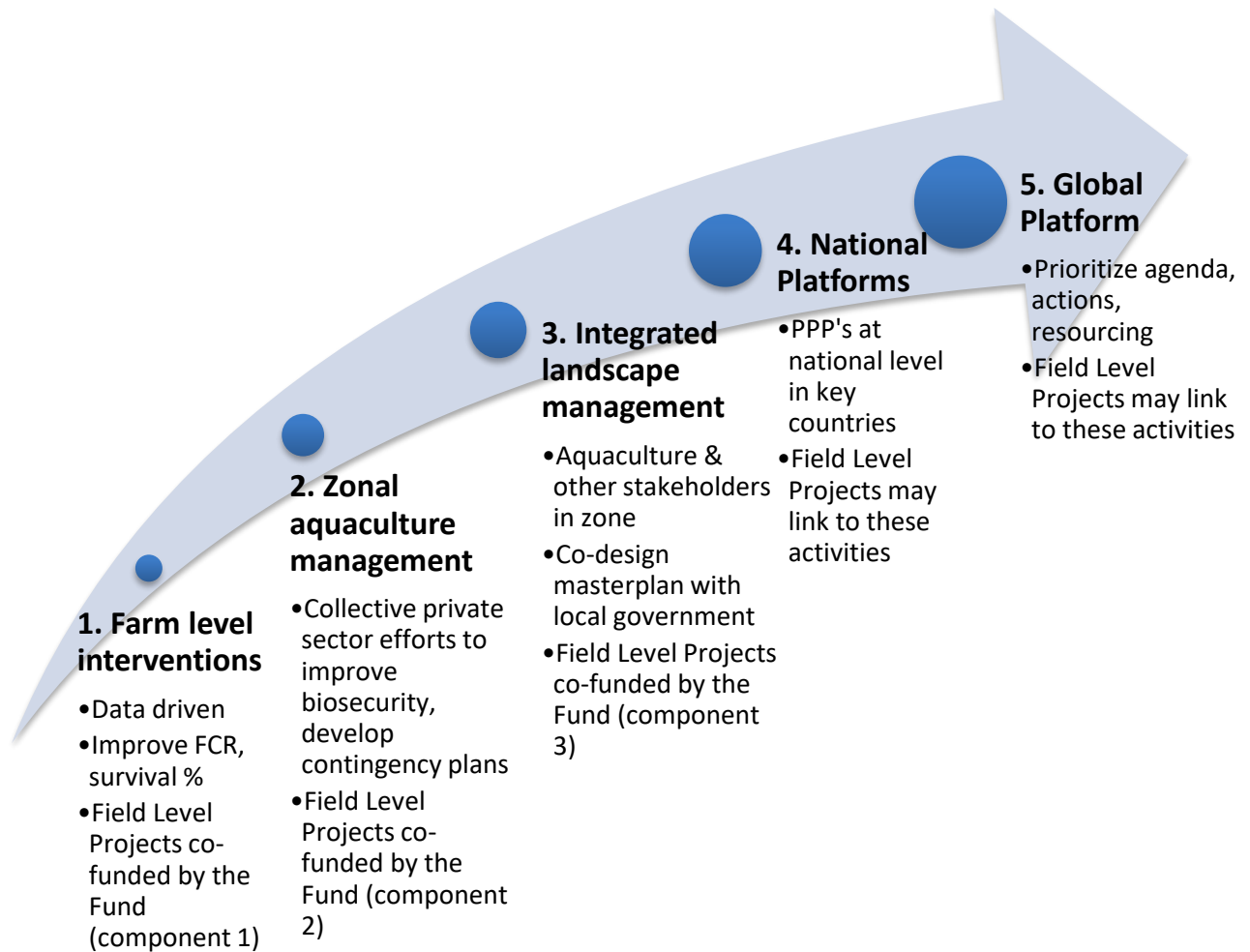
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Introduction

Health and disease management is arguably the most critical challenge the aquaculture sector faces. Diseases have always challenged the development of the sector. Although the sector generally bounces back after an outbreak and considerable progress has been made in pathogen or disease detection, it does not seem to be any more prepared to deal with diseases than it was two decades ago. In fact, similarly to previous diseases, the Early Mortality Syndrome (EMS) outbreaks in shrimp in Asia and Latin America have led to crop failures for several hundred thousand producers, resulting in global price and supply volatility of farmed shrimp. In subsectors that are not affected by major disease outbreaks the volatility in survival ranges in the two-digit percentage figures for which explanations like weather and seed quality are generally blamed, often without concrete evidence. Agrochemicals (e.g. antibiotics) use is still prevalent in large segments of the industry, arguably driven by a general lack of knowledge on the application and effectiveness of such treatments against the emerging disease problems. This often leads to misuse of these substances, which may affect food safety and market access of aquaculture products. As food safety is the top priority for seafood buyers, aquatic animal health management is a critical issue to address.

In 2013 IDH opened its Farmers In Transition (FIT) Fund (the “Fund”). In the first three years the Fund has been very successful in rolling out global and large-scale support to aquaculture producers to implement better practices and shift to certification. However, this mechanism did not address the critical challenges on health and disease management which often goes beyond the level of the farm. IDH has now transformed the Fund to specifically address health and disease management in the aquaculture sector and adopt a more data-driven approach to farming practices.



Purpose and objective of the Fund

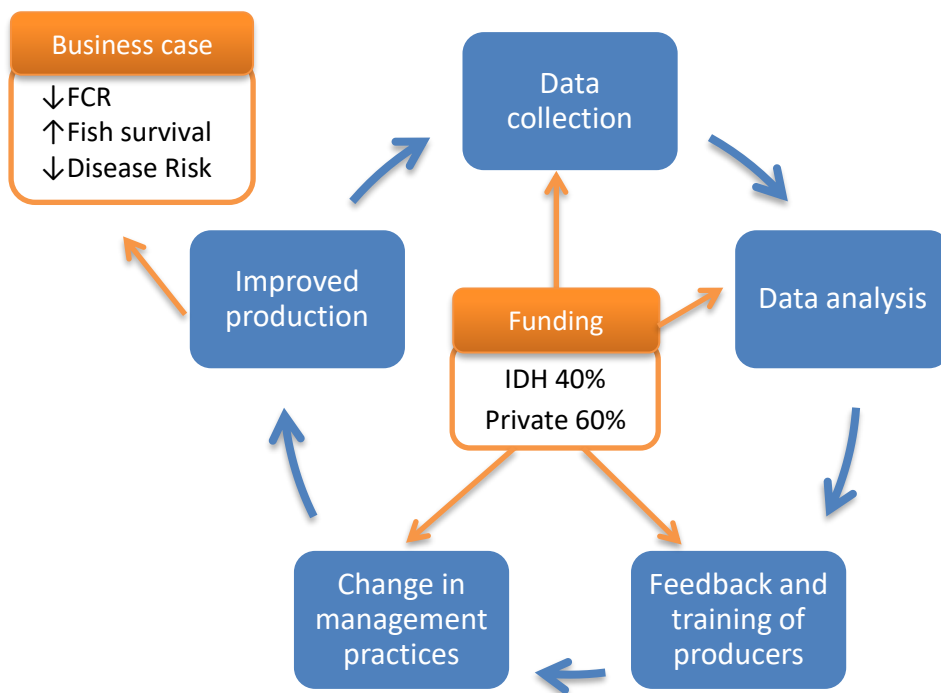
As outlined in the figure above the Fund can co-invest in field level projects at various levels ranging from supporting private sector companies to adopt a data-driven approach (e.g. making better use of data collected for certification purposes) to improving farm efficiency (component 1), to improving disease management amongst aquaculture producers by developing zonal management regimes (component 2), to full-fledged landscape integration of zonal management with aquaculture producers and other public and private sector actors in the landscape with the aim to improve health and disease management for the area (component 3). These activities in the field can then be linked to platforms at national (component 4, e.g. Seafood Task Force in Thailand or the PPP Fish in Vietnam) or global level (component 5, e.g. GSSI) as to strengthen collaborative efforts.

Component 1: Adopting a data-driven approach to optimize production efficiency

Disease outbreaks and volatility in survival are often associated with poor feed performance, resulting in financial losses and poor efficiency in natural resource use. Data are increasingly being used to identify risk factors in human or veterinary medicine. Only through population data we can know that doing X (e.g. use of a certain products) is associated with a decreased or increased risk of experiencing disease Y. Huge amounts of data are being collected e.g. to comply with certification requirements. These data are used at best to manage farms on a day-to-day basis (e.g. changing water when the data say that the water quality is poor etc.) or to monitor farm performance. At worst this data is only

made available to auditors to grant certification. However, much more can be done with those data if analysed by professionals like epidemiologists. A data-driven health and feed performance approach is being developed to improve overall farm efficiency through reduced mortality, disease risk and improved feed conversion. This approach will eventually support farmers in implementing better management practices and improving the resilience of the sector. For this model to work successfully IDH aims to facilitate:

1. Data collection on different production parameters at farm level and, as needed involving other value chain players.
2. Data analysis by aquatic epidemiologists, economists, etc.
3. Feedback to producers on how to mitigate disease risks and optimize production efficiency based on population statistics.
4. Share experiences to other industry players as to create appetite for this data-driven approach to be scaled up (e.g. through public sector etc.) as to also improve the effectiveness of response.



Component 2: Adopting a zonal management approach to aquaculture

Implementing improved biosecurity protocols and collective management of critical disease risks amongst aquaculture farmers with shared (water) resources, aquaculture farmers can improve risk mitigation resulting in optimized production, lower disease risk and a faster and more targeted response in case of an emergency. As such, zone management poses a strong opportunity to improve health & disease management. For this reason, in addition to the data-driven approach to optimize farm efficiency as outlined above under component 1, zonal management will also be supported through the Fund. This component can be complementary to component 1.

Component 3: Integrated landscape management to mitigate critical production risks

In addition to the zonal management approach to aquaculture as described above as component 2, fully integrating aquaculture farmers into the wider landscape (including other resource users) potentially brings the greatest impact in terms of mitigating critical production risks related to health & disease management. Activities under this component should include mapping of stakeholders within the landscape (aquaculture producers, other agricultural producers, other industry players, public sector and regulators), identification of production risks through multi-stakeholder engagement, and the development of masterplans at landscape level to manage production risks in collaboration with public authorities and regulators.

Component 4 and 5: National & Global Platforms

Activities under component 1 to 3 can be linked to National or Global Platforms as to strengthen collaborative efforts between public and private actors towards improved health & disease management. The Fund is not open to proposals which only address this level of interventions but instead IDH incentivizes Applicants to nest FLPs under existing platforms (e.g. GSSI, Seafood Task Force in Thailand, PPP Fish in Vietnam). Contact IDH to discuss the relevance of this.

Process

Applicants who want to develop Field Level Projects which only address component 1 can apply to the call for proposal (as explained below). For component 2 to 5, the applications are temporarily closed.

Call for proposal

From April 2018 to June 2018, a call for proposal is held under the FIT fund for projects under component 1.

Design of each project

We envision projects to last for 1-2 years, depending on the farming company. Typically, a data analysis project will consist of:

- a) Epidemiologist visits farming company, if needed, identifies what variables should be collected and explains how to collect such variables;
- b) Farming company collects farm data, and sends it to the epidemiologist or other disease expert if needed;
- c) Epidemiologists analyzing data;
- d) Epidemiologists provides tailored advice on the risk factors per crop, via a training session for the staff of the farming company.

Variables to be collected

The data that is typically collected throughout a project can include the following variable:

Outcomes	Factors influencing the outcome
FCR	Type of feed
Yield	Type of seed
Survival	Timing, frequency and quantity of feeding
Occurrence of disease	Seed source
Etc...	Substances used
	Type of system
	Location of the farm
	Quantity of ponds
	Pond Depth, etc.

Note that these data are additional to the mandatory KPIs as outlined in the Key Performance Indicator paragraph (see below).

The epidemiologists' institutes

A coalition of epidemiologist institutes is involved in the projects, consisting of the Norwegian Veterinary Institute, the University of Prince Edwards Island, Stirling University, Liverpool university and other known aquatic epidemiologists. IDH will also be open to have the analysis conducted outside of this groups, but those institutes will be scrutinized by IDH before a project starts.

Cost of the projects

The projects are co-funded by IDH. This means that IDH and the farming company will share the project costs. The costs of the epidemiological analysis as well as trainings on data collection are shared between the farming company and IDH on a 50%-50% basis. The farming company also provides an in-kind contribution to the project by spending time on collecting the data, leading to a 40% (IDH) - 60% (farming company) proportion on the total program costs. We estimate that the total costs per project will range from 20,000 Euro to 50,000 Euro per farm/company.

Activity	Comment	IDH %	Private %
Data collection by internal (employed) persons	Data collection can be on water quality, fish health, production practices	0%	100% (can be in kind)
Data collection by external (contracted) persons	Data collection can be on water quality, fish health, production practices	40%	60%
Data analysis	The standard of the institute carrying out the data analyses should have the right expertise.	50%	50%
Feedback and training of producers	Based on analysis of data	50%	50%
Change in management practices	Based on analysis of data	30%	70%

Project management & reporting (excluding auditing costs)		50%	50%
Total		<40%	>60%

Target Audience

Companies are selected based on the following criteria:

- Involved with farming of shrimp, tilapia or pangasius;
- Working with a considerable (50-100) number of units (ponds or cages);
- Have field staff (or is involved with farmers) that have the capacity to collect variables on outcomes and factors affecting the outcome;
- Able to provide the data in an analyzable (digital) format;
- Operates in Thailand, Vietnam, China, Ecuador, Indonesia or in sub-Saharan African countries. Applications from other countries will also be considered

Eligibility

IDH will only co-fund **private sector supported Field Level Projects** and as such requires Applicants to clearly state the private sector share of co-financing as to account for at least 60% of the total project proposal. The funding provided by IDH will always be dependent on the private sector contribution.

Eligibility criteria:

1. The Applicant can prove it can account for the private sector share of the financing of the project
2. The Applicant has the expertise to implement the Field Level Project.
3. The Applicant is a private company
4. The Applicant is responsible to account for the IDH contribution and the Private Sector contribution in the Field Level Project to IDH.
5. The Applicant and Partners comply with the M&E requirements of IDH as set out in this document.
6. The Applicant and Partners agree through a written commitment that no (mangrove) deforestation will occur within the proposed project.
7. The Applicant and Partners agree to share lessons learnt and key recommendations generated from the data analysis.
8. The Applicant agrees to share aggregated information on health and disease provided the information does not make the producers involved in the project as recognizable externally.

Timeline call of proposal

The project costs, the timing of the project, the variables, as well as the epidemiological institute will vary per company, which is why the applicants are requested to submit an initial proposal, indicating:

- 1) The farmed species;
- 2) The location of the farm;
- 3) The number of units;

- 4) The variables that can be collected, including the outcome they aim to measure and improve upon

The template for this initial proposal is attached hereto in Annex 1. The proposals will be reviewed, and the companies will be selected by IDH. IDH aims to have a broad portfolio of maximum ten companies, with a variety in:

- The three species: Tilapia, Shrimp and Pangasius;
- Production systems;
- Geographic area.

After the companies are selected, the farming companies are linked to epidemiological institutes. We aim to link the epidemiological institutes with a specific group of producers (per geographic area, species or production system) as to create efficiencies for everybody involved. Finally, tailor-made projects are created, which will be contracted through a three-party contract which involve a farming company, an epidemiological institute and IDH.

Funding agreement

Upon final approval of the proposal, IDH will draft a three-party funding agreement. All funding agreements will be subject to the General Terms and Conditions of IDH, the Sustainable Trade Initiative (attached hereto as Annex 2). These General Terms and Conditions state the rights and obligations of both the contracting party and IDH regarding their cooperation in general. By handing in a proposal, the Applicant declares to unconditionally accept to the contents of the General terms and conditions.

Confidentiality

All information, documents and other requested or provided data submitted by the Applicant will be handled with due care and confidentiality by IDH. The provided information will, after evaluation by IDH, be filed as confidential.

The documents provided to the Applicant by IDH must be handled with confidentiality. The Applicant will also impose a duty of confidentiality on any parties that it engages. Any breach of the duty of confidentiality by the Applicant or its engaged third parties will give IDH grounds to reject the proposal, without requiring any prior written or verbal warning.

Key Performance Indicators

As part of the 2016-2020 overall strategy of IDH, a Results Measurement Framework has been developed. This framework allows IDH to measure the effects of its programs through Key Performance Indicators (KPIs). Individual programs such as the Aquaculture program will have to report against mandatory KPIs which are measured across the board for all programs. Next to the general indicators in the Result Measurement Framework, the IDH Aquaculture program also has a set of aquaculture specific KPIs. The table below outlines the KPIs that need to be reported against in Component 1 projects:

Indicator	Metrics
# of producers/workers/community members trained on key subjects for sustainable production	The number (#) of persons trained, with the following distributions: <ol style="list-style-type: none"> Gender segregation The number (#) of individual training events The topic of the training (see measurement guidance for the list of topics that should be selected)
Adoption rate by producers/workers (m/f) of improved practices	The number of target producers/workers that adopted the new practices, per practice with the following distributions: <ol style="list-style-type: none"> Gender segregation Percentage of these producers/workers as share of total population of producers/workers trained
Volume of sustainably produced production	Metric tons (MT) of production segregated for species
Farmland area where trained practices are applied	Hectares (ha) of land where trained practices are applied within the farm system.
Production efficiency	Feed Conversion Ratio (FCR)
Fish/shrimp survival	Survival rate (%)
Antibiotic/Treatment use	Antibiotic/Treatment use

IDH has developed a KPI Guidance Document for IDH Aquaculture Implementing Partners (“Guidance Document”) as a reference for how to measure these indicators. The Guidance Document is attached hereto as Annex 3.

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Annexes

- Annex 1: Template initial project proposal
- Annex 2: General Terms and Conditions of IDH, the Sustainable Trade Initiative
- Annex 3: KPI Guidance Document for IDH Aquaculture Implementing Partners