

# Improving Farmed Fish Welfare in Asia

Project led by the Institute of  
Aquaculture at the University of  
Stirling supported by Open  
Philanthropy

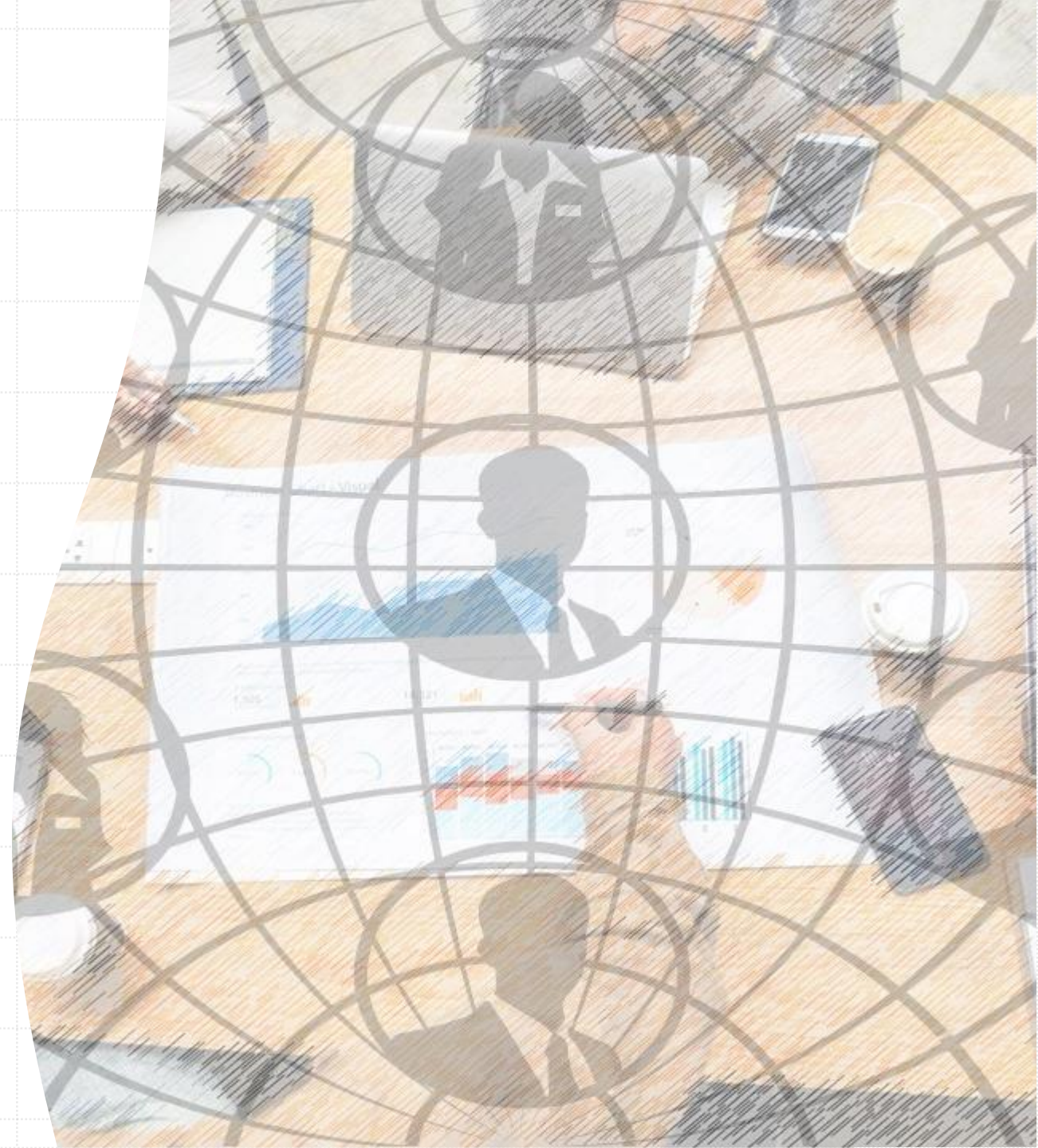


# Online information session

Launching the second call for proposals for funding support for research projects in Thailand and Vietnam



***Please note this session will be recorded for the benefit of people unable to attend in person. Please use the chat function to communicate if you do not wish to be included in such a recording.***





# Agenda

Introduction to the session, to the project staff and to Zoom tools – John Bostock

Introduction to the second call – Dave Little

Report on Hotspot Analysis – Simao Zacarias

Application procedures – John Bostock

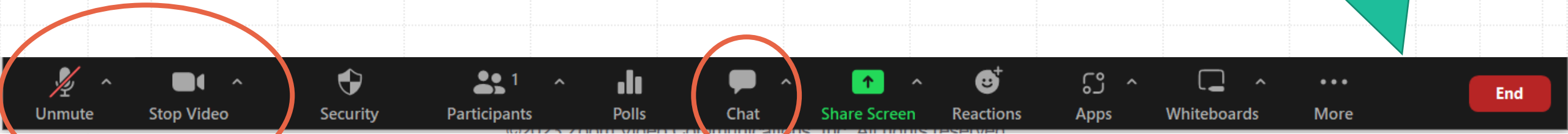
Open session for questions – via chat or raised hand

Breakout rooms (Optional) – Thailand and Vietnam – participant introductions & discussion

Plenary for final questions and discussion

# Zoom tools 1

Zoom works best when you use the desktop version – preferably with two screens. Download the client software from <https://zoom.us/download>

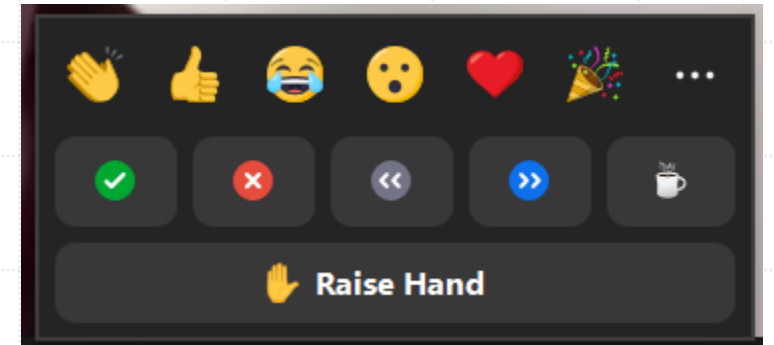


Please mute your microphone unless you are speaking to the meeting, but leave your video on if it does not cause connection problems

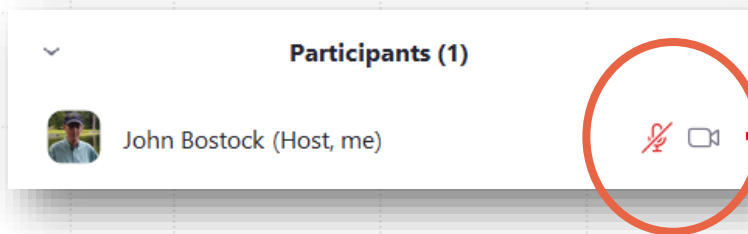
You can ask questions in the chat section and we will try to respond during the meeting

# Zoom tools 2

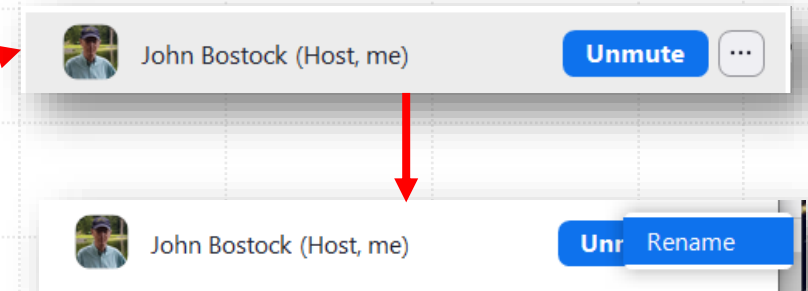
If you would like to ask a verbal question, please click the reactions button and then "Raise Hand" and we will then invite you to speak



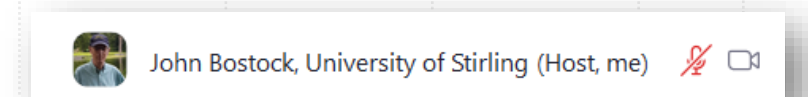
Click on Participants to open the side panel and find yourself



Hover your mouse over the camera icon until it changes to three dots and then click

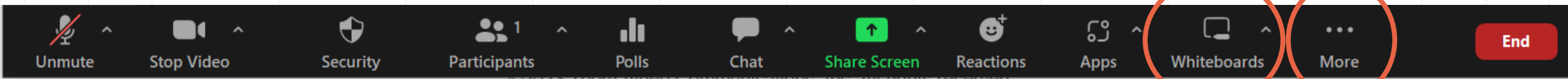


Click on "Rename" and write your full name and organisation



# Zoom tools 3

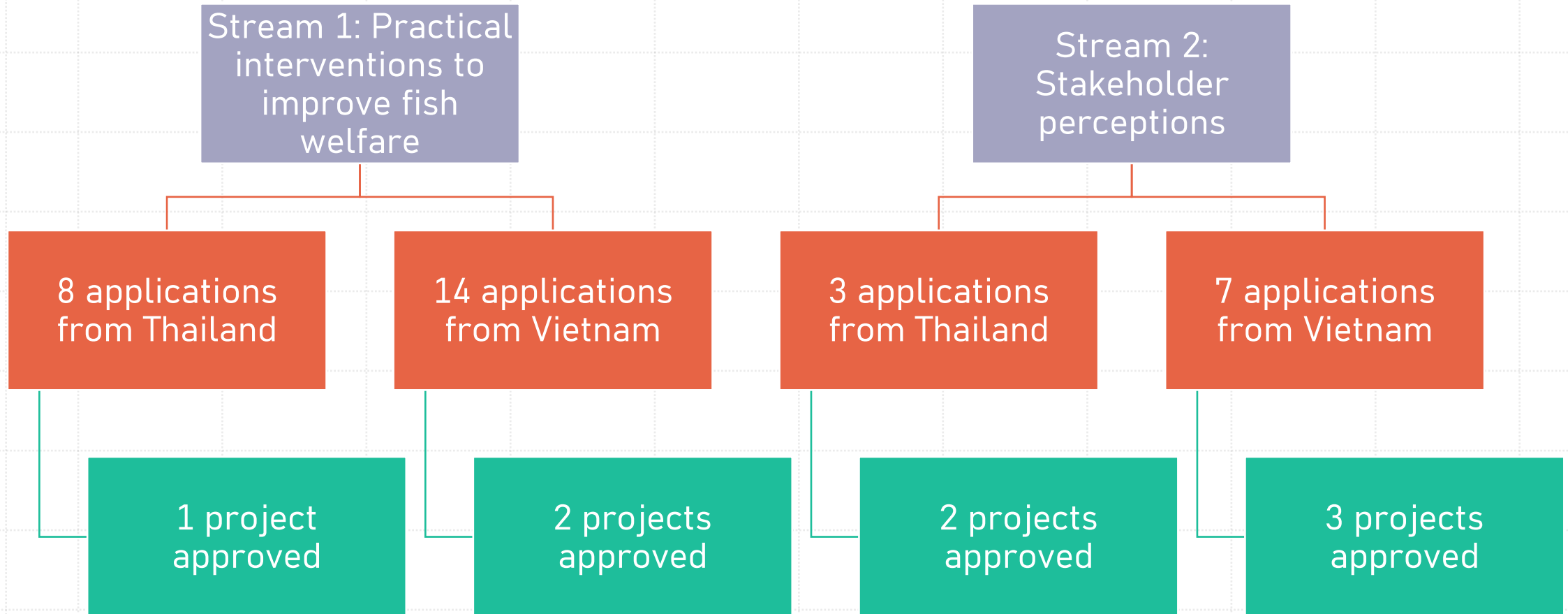
A session host or breakout room facilitator may create and share a whiteboard which can be used to document ideas and discussions



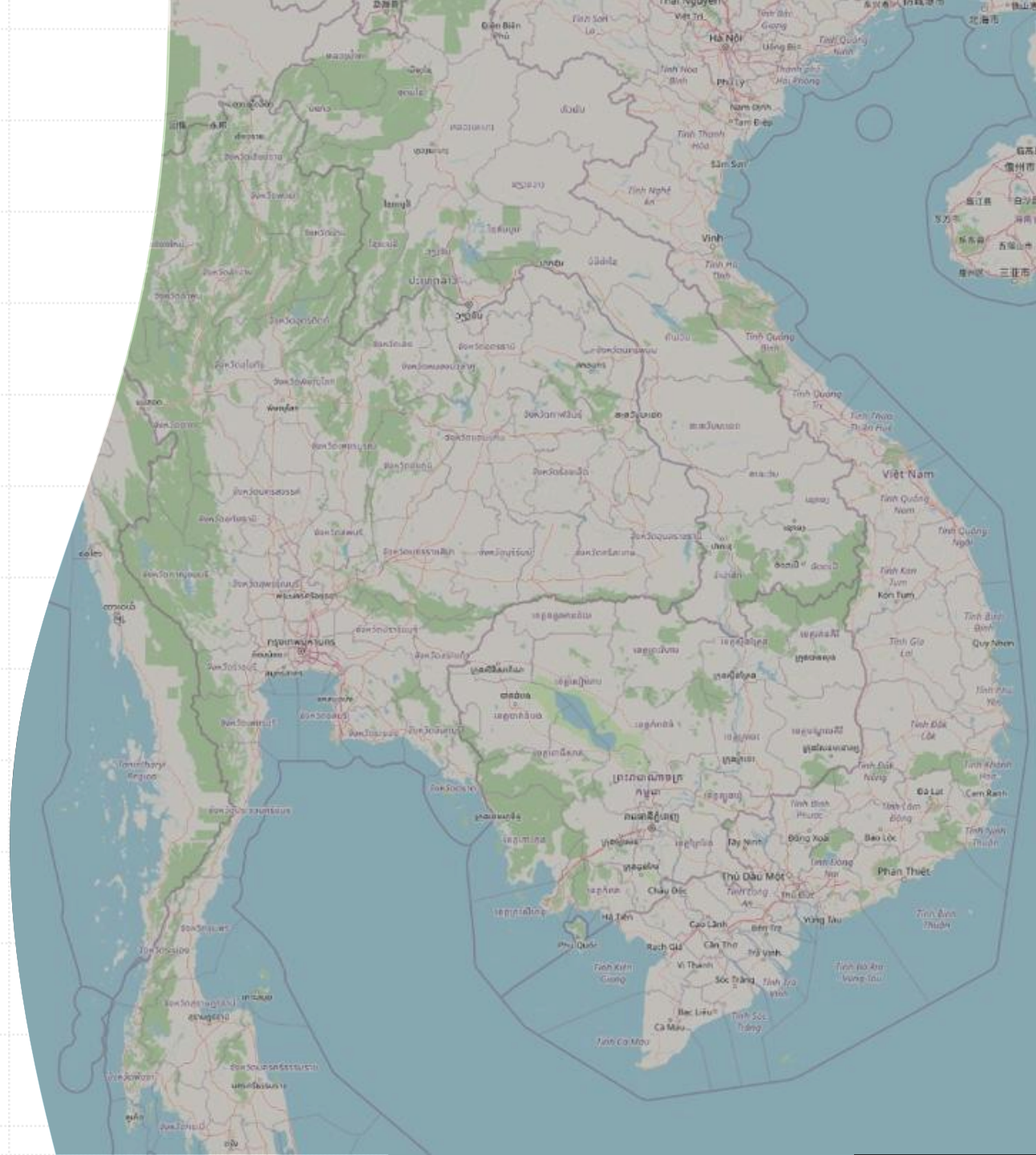
If we use breakout rooms you should see instructions appear on the screen. If not, you may be able to access them here.

# Summary of first call

Total of 31 applications, with 8 finally approved for funding



# Introduction to the Second Call





Building on the findings of our “Hotspot Analysis”



# Methods

- Visiting farms, processors, markets, retailers and restaurants to observe practices and discuss welfare issues
- Thailand and Vietnam




# Key findings

- Poor welfare can occur at any stage in production, transportation and marketing
- Greatest levels of suffering tend to be associated with handling (especially harvesting), transport, short-term holding facilities and slaughter
- The focus of project research should therefore be on simple and cost-effective measures to substantially reduce the suffering of aquatic animals during episodes of major trauma



<b>Priority areas for main farmed species</b>	<b>Examples of proposal ideas we welcome for STREAM 1</b>
<b>Transport</b>	<p>Reduce stressful transportation conditions which induce mortality post-stocking</p> <p>Improve transportation condition and systems to markets and among markets</p> <p>Reduce cannibalism during transportation (Freshwater Prawn)</p>
<b>Harvest</b>	<p>Improve harvesting practices/methods (e.g. Partial harvests)</p>
<b>Live Market</b>	<p>Provide better holding conditions and systems (e.g. Water quality, stocking density, water volume, aeration level, tank type ), including for airbreathing fish</p> <p>Improve handling methods</p> <p>Improve physical appearance of the animals</p> <p>Improve small scale retail market to high level of welfare conditions</p>
<b>Slaughter</b>	<p>Improve current mechanical and other stunning and killing methods</p> <p>Find alternative to live cooking of Prawn/shrimp</p> <p>Find alternative to prolonged ice chilling of Prawn/shrimp killing method</p>

**Note: More detailed examples per species and region will be online next week**



Funding up to GBP16,000 available for small research projects in Thailand or Vietnam in one of the following topic areas:

- Practical research aimed at improving aquatic animal welfare during harvesting, transport, live animals holding systems and slaughter.
- Research into how to better communicate fish welfare issues to Thai and Vietnamese communities.



# Research Teams

- Applications are invited from academic organisations based in either Thailand or Vietnam which involve at least one other stakeholder (e.g. commercial business or non-government organisation) and preferably, collaboration with a third country organisation (e.g. not based in Thailand or Vietnam) that has appropriate expertise.

# Call for proposals

This document sets out the main objectives and criteria for the call

Download from:  
<https://www.susaquastirling.net/welfare-calls>

UNIVERSITY OF STIRLING – SECOND CALL FOR PROPOSALS – V1

## IMPROVING THE WELFARE OF FARMED FISH IN ASIA

ROUND 2: PROPOSAL FOR RESEARCH TO SUPPORT FARMED FISH WELFARE

### Important Dates:

8 January 2024 – Opening of Call for Research Proposals  
24 January 2024 - Online Sandpit for potential applicants  
31 January - Deadline for submission of initial concept notes (optional)  
8 February - Feedback on initial concept notes (where applicable)  
29 February 2024 – Deadline for submission of applications  
April 2024 – Preliminary notification of outcome to applicants  
May 2024 – Target date for finalisation of contract documents and start of research  
November 2024 – Expected completion date for research  
December 2025 – Deadline for submission of final report and expense statements  
January 2025 – Expected final payments

### INTRODUCTION

With financial support from [Queen Philanthropy](#), the Institute of Aquaculture, University of Stirling is conducting a two-year project to research and support interventions to the farming, transport and slaughter of fish and other aquatic animals\* in Asia. As part of this, it is inviting collaborative proposals from academics and others (e.g. NGOs, companies, public and private research institutions, retailers, associations) located in Thailand and Vietnam, for short research projects (6 months duration) which meet the objectives and criteria set out in this call for proposals.

Further details about the project and its overall objectives can be found at <http://www.asiafishwelfare.net>

Proposals are invited for research that addresses one of the following objectives:

- 1) Practical research aimed at improving aquatic animal welfare during harvesting, transport, live animals holding systems and slaughter. Examples of research areas may include stunning and killing methods; farming, handling and transportation methods; development of new species-specific operational welfare assessment methods; validation of welfare indicators; interaction of welfare and food safety; interaction of welfare and other sustainability areas (e.g. social, economic, environmental).
- 2) Research into how to better communicate fish welfare issues to Thai and Vietnamese communities. For instance, research on engagement/communication strategies on welfare issues and

# Stream 1 Objectives



Show originality of the proposed work and academic excellence of the proposed methods and analysis

Address an aspect of fish farming practice during harvesting, transport, live animals holding systems or slaughter, where fish welfare could be improved or enhanced

Conduct research that helps to establish evidence of benefits for improved fish welfare practices (e.g. cost reductions, or improvements in product quality or value)

Involve trialling practical changes to existing practices and collecting data on farmed fish welfare indicators.

Does not involve any procedures which may inflict additional pain or other suffering on fish or other aquatic animals

Include dissemination and communication activities to share the outcomes with all stakeholders (including the production of a video blog)

Is led by an academic organisation located in Thailand or Vietnam

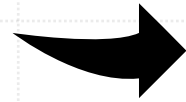
Involves at least one commercial or non-government organisation from the same country as the Lead Applicant

Involve a research team which is inclusive with respect to gender and different levels of experience.

Preferably involves a research organisation with relevant expertise which is located in a third country (i.e. not Vietnam or Thailand)



# Stream 2 Objectives



Show originality of the proposed work and academic excellence of the proposed methods and analysis

Address questions of how best to communicate on issues of fish welfare with any or all stakeholders including regulators, farmers, traders, retailers and consumers etc.

Uses local researchers and languages, media types and channels to help identify narratives and understandings on fish suffering and the links between health, welfare and product quality

Include dissemination and communication activities to share the outcomes with all stakeholders (including the production of a video blog)

Is led by an academic organisation located in Thailand or Vietnam

Involves at least one commercial or non-government organisation from the same country as the Lead Applicant

Involve a research team which is inclusive with respect to gender and different levels of experience

Preferably involves a research organisation with relevant expertise which is located in a third country (i.e. not Vietnam or Thailand).

# Evaluation criteria

<i>Criteria</i>	<b>Maximum mark</b>	<b>Weighting multiplier</b>	<b>Maximum score</b>
<i>Originality and relevance of the proposed work and academic excellence of the proposed methods and analysis</i>	5	8	40
<i>Relevant expertise and capacity of the partners to conduct the proposed research</i>	5	4	20
<i>Range of experience and gender balance represented in the project team</i>	5	1	5
<i>Involvement of relevant local stakeholders</i>	5	2	10
<i>Involvement of relevant international partner</i>	5	1	5
<i>Quality and potential impact of communication and exploitation plans</i>	5	2	10
<i>Value for money and contributions from other partners</i>	5	2	10
<b>TOTAL</b>			100

# Application form

The application form is straightforward and allows you to set out your partnership, research objectives and methods and how you will maximise impact.

Download from:  
<https://www.susaquastirling.net/welfare-calls>

UNIVERSITY OF STIRLING - APPLICATION FORM – DRAFT VERSION 02

## IMPROVING THE WELFARE OF FARMED FISH IN ASIA

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[November 2024](#) – Expected completion date for research  
[December 2025](#) – Deadline for submission of final report and expense statements  
[January 2025](#) – Expected final payments


Which type of project funding are you applying for (mark one box only)?

- Farmed Fish Welfare during harvesting, transport, live animals holding systems and slaughter
- Communicating fish welfare issues

Project title

Short title

How will this project benefit animal welfare (~ 150 words)



## Research questions

Describe the main issues that you are addressing

Outline your research plan (Methods)


What questions do you expect this research to answer?



## Responsibility questions

Who will be involved in the research? (Names, roles, organisations, time input or other contributions)

Summarise concisely the contribution and responsibilities of each partner organisation



## Outcome and communication questions

What could be the outcomes of your research and how could this impact fish welfare practices in your country and Asia?

How will you communicate your work and results to all stakeholders?

# Budget & financial rules

A budget template is provided for guidance. The lead academic organisation is expected to manage the funds for other in-country partners and be responsible for reporting expenditure.

International partners will be contracted separately

## SECTION 4: RESEARCH BUDGET

Please use the provided Microsoft Excel spreadsheet to prepare your budget. The summary information should be included below:

In country expenses	P1. GBP	P2. GBP	P3. GBP	Total GBP
Cost of staff directly employed on the project				
Travel and subsistence costs associated with the research				
Cost of equipment rental				
Cost of consumable items (including software)				
Cost of communications (including promotional expenses)				
Other eligible costs				
Administration overhead				
<b>Subtotal in-country expenses</b>				
<b>International partner expenses</b>				
Travel and subsistence costs associated with the research				
Consumables associated with the research				
Other eligible costs				
<b>Subtotal international partner expenses</b>				
<b>TOTAL COST OF PROJECT</b>				
Contributions from other organisations (give details below)				
<b>BALANCE OF FUNDING REQUESTED</b>				

If you have secured part-funding for the project from another organisation, please give full details here:

# Financial rules – Further guidance

Full details are available in the draft award letter(s) which will be available on the project website shortly

- There is a maximum overhead rate of 10% imposed by Open Philanthropy – In most cases this should only be claimed by the lead partner
- Payments are normally made after the expenditure has been incurred and claimed against work completed and with the support of adequate financial documentation
- A partial advance can be provided to the lead organisation if required



# Due Diligence

The University of Stirling is under a wide range of UK legal obligations, specific contractual obligations and must also act in accordance with its own ethical and management policies

This means that "Due Diligence" must be carried out on all contracting partners to ensure the University complies with these requirements.

- All lead and International partners are asked to complete and submit a Due Diligence form as part of the application process
- Copies of organisation's policy documents are requested as part of the Due Diligence review
- Contractual documents must be signed by the appropriate legally authorised person in the organisation with communications through an official e-mail address
- Payments will only be made to an official bank account of the organisation
- All other partners must provide letters of commitment to the project

# Due Diligence Resources

The University of Stirling Due Diligence questionnaire will be sent to organisations that register an intention to submit a proposal.

This is based on a standard UKRI template which can be downloaded, along with a guidance document from

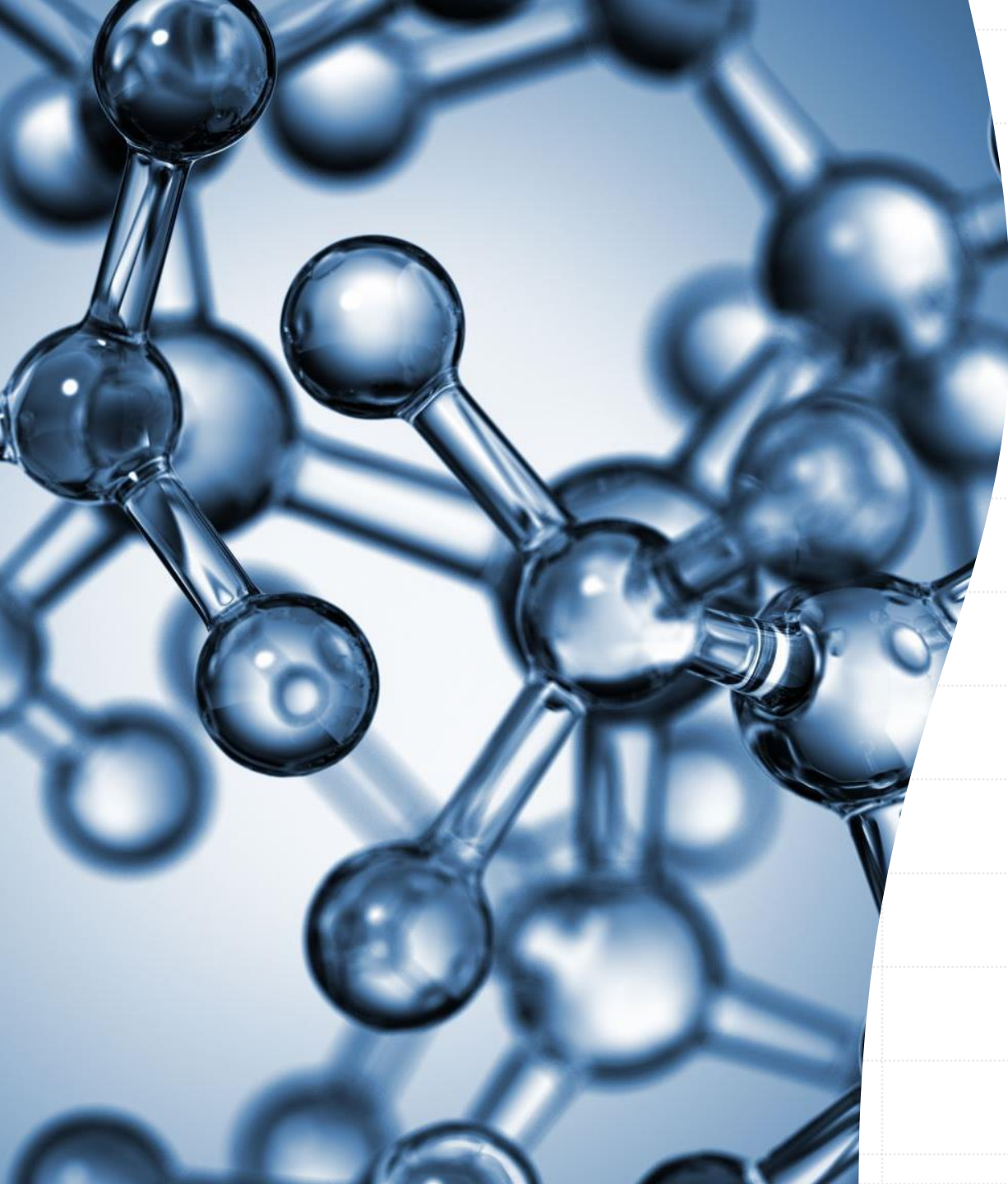
<https://www.ukri.org/publications/due-diligence-guidance-and-supporting-documents/>





# Important dates

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# Support for applicants

- Partner identification and communication
- Development of research concepts

Shared document to support partnering and initial concept formation

Institute of Aquaculture, University of Stirling

## Improving Farmed Fish Welfare in Asia Project

### Contacts and Concepts Share for VIETNAM

**Instructions:** Enter your basic organisation details and interests in the first table using a single row of the table. Then add your interest to an existing project concept or create a new one using a blank table in the second section.

1. Enter basic information in this table (one row per organisation)

Organisation (Name & website)	People (Names, positions, e-mail address)	Offering (areas of expertise, facilities, resources)	Looking for (partner types, facility types, expertise)

2. Concept development – replicate this table for each research project concept proposed.

Concept title	
Proposed by (Names and organisations)	
Concept Details	
Interest and comments (add your contact details here if interested and make any comments)	



# Suggestions for Developing a Project Concept

Using the PowerPoint  
Template

### Project Title:

<Insert working title>

### Project Coordinator:

<Insert coordinator>

### Brief summary of the project:

<very concise summary of the project - the problem it addresses, the stakeholders involved and the expected outcomes and impacts>

### Primary Issues and Themes addressed:

E.g. Which research stream and question will you address?

1. Practical research aimed at improving aquatic animal welfare during harvesting, transport, live animals holding systems and slaughter. Examples of research areas may include stunning and killing methods; farming, handling and transportation methods; development of new species-specific operational welfare assessment methods; validation of welfare indicators; interaction of welfare and food safety; interaction of welfare and other sustainability areas (e.g. social, economic, environmental).
2. Research into how to better communicate fish welfare issues to Thai and Vietnamese communities. For instance, research on engagement/communication strategies on welfare issues and improvements. Example of research areas may include the use of digital/online technologies and offline methods.

### Disciplines involved:

- What disciplines does the project involve?
- What type of expertise are required?

### Primary Impact Goals

Examples:

- Efficacy of stunning at slaughter improved
- Welfare of live fish in retail market tanks improved
- Best messages and channels identified to stimulate farmers to improve farmed fish welfare

### Describe the challenge (problem) to be addressed by the project:

<insert description of the problem/challenge that the project will address>

### Describe the challenge causes (background):

E.g.

- Why does the problem exist?
- What is the underlying root cause or unmet need?
- Why has it not been addressed already?
- Have there been previous attempts? If so, what was the outcome?
- Any additional background data, insight or information you have discovered?

### Describe the challenge effects:

E.g.

- Who does the challenge impact?
- What are the consequences for individuals and organisations?
- What is the scale of the impact?
- What are the long term implications?
- Any relevant statistics or KPIs?
- What qualitative and quantitative indicators can be used to measure the impact of successful change?



### Summary solution description

- <insert description>
- <Insert description>

### Diagram or Image of Solution

<<<Insert image or diagram here >>>  
Add another slide at the end of the document  
if more space is needed

### How does your solution address the challenge?

1. < How #1? >
2. < How #2? >
3. < How #3? >

What additional benefits might it deliver and to who?

1. < benefit #1 >
2. < benefit #2 >
3. < benefit #3 >

Please cover commercial benefits, society benefits, individual and academic benefits (i.e. increasing knowledge and understanding) as well as direct welfare benefits for farmed fish and aquatic animals

## The Solution Activities

### Hypothesis?

- Please describe any hypothesis or learning you intend to gain from the project
- Explain how each is relevant to the overall challenge and informs the potential solution

### Activities, Milestones, Deliverables?

Please list the main activities, milestones or critical decision points for the project life

- Key activities
- Key milestones
- Key decision points

### Experimental and/or Survey design?

Describe what experimentation, trials or surveys you will carry out to test your hypothesis and support your solution

- What data will you gather?
- Who will be involved?
- How will it be structured?
- What infrastructure will you need?
- What analysis will be done?

### Outputs

*Example: introduce new stunning system*

### Outcomes

*Example: 10 processors or retailers using this system*

### Impacts

*Example: Documentation and dissemination of improved welfare and product quality stimulates wider adoption across the sector*



### Assumptions? Potential Barriers and Risks?

- What assumptions are you making?
- What potential barriers & risks to your project might arise, and how will you address those? For example, language barriers, climatic disasters, non-cooperation of relevant stakeholders, etc.

### Target Pathways of Dissemination & Communication?

1. What pathways/methods of dissemination and communication will be used?
2. Who do you need to communicate with? How do you reach them? What are the specific ways of reaching them?

### Project members & roles

- **Member #1** - describe role
- **Member #2** - describe role
- **Member #3** - describe role
- **Member #4** - describe role

### Potential stakeholders (briefly describe their interest)

- **Stakeholder #1** - influence and interest
- **Stakeholder #2** - influence and interest
- **Stakeholder #3** - influence and interest
- **Stakeholder #4** - influence and interest

(Explain the interest each stakeholder will have on the project and any influence (positive or negative) they may have over it)

### Additional Resources Required?

Additional resource required beyond what the members can contribute themselves:

- < Funding? >
- < people? >
- < skills? >
- < equipment? >
- < access? >
- < data? >
- < support / guidance >

### Rough Budget estimate

- How much time is required for this work?
- What is the estimated budget for this project?
- Are there in-kind contributions?

### Partner-to-Partner Knowledge Transfer

- What training will be carried out, and where?
- Who will benefit from training activities?
- Knowledge transfer between disciplines

# Concept review and feedback

UoS Institute of Aquaculture staff will review concept notes submitted by 31<sup>st</sup> January and provide feedback by 8<sup>th</sup> February to support organisations in preparing proposals.





# Questions?

Raise hand to speak or  
post questions in the chat

# Breakout rooms?

- Thailand
- Vietnam



# Suggested Agenda



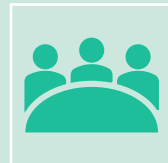
Individual introductions and sharing of key areas of expertise and interest



Initial thoughts on priority research questions



What other expertise needs to be accessed?



Which stakeholders should be involved and how?





# Meeting round-up

01

Feedback from  
breakout  
meetings and  
further discussion

02

Potential  
meetings with  
project staff in  
March

03

Meeting feedback

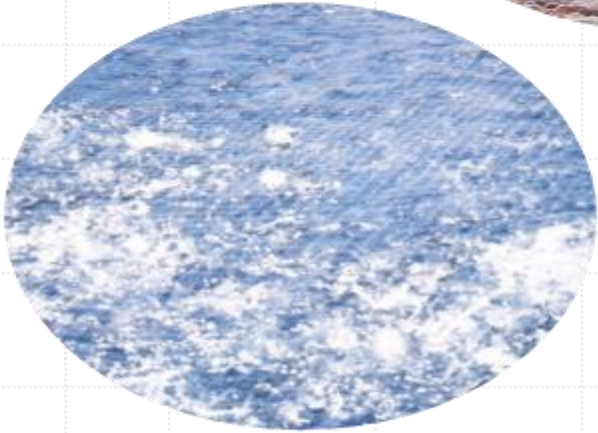
A photograph of a pond filled with many colorful koi fish, including orange, white, and black varieties. The water is dark, and the fish are swimming. On the right side of the image, there is a white grid pattern that is semi-transparent and covers a portion of the pond's edge.

# Thank you for participating

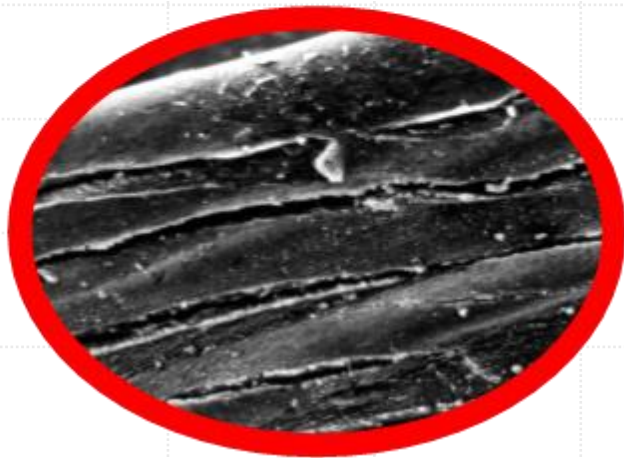
Please complete the short feedback survey which should appear once the meeting is closed

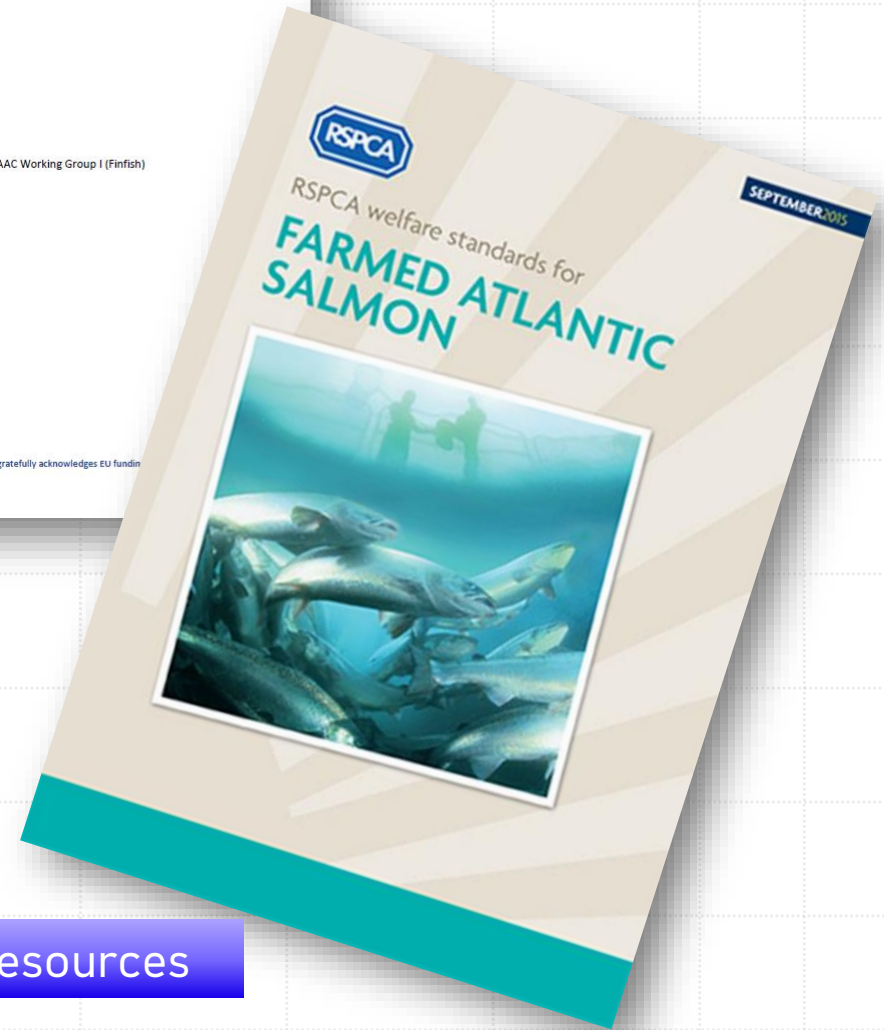
<https://www.susaquastirling.net/asiafishwelfare>

<https://www.linkedin.com/groups/9306181/>



# FISH FARMING WELFARE ISSUES





See <https://www.susaquastirling.net/welfare-resources>



**1**  
**FREEDOM FROM HUNGER AND THIRST**



by ready access to fresh water and a diet to maintain full health and vigour.

**2**  
**FREEDOM FROM DISCOMFORT**



by providing an appropriate environment including shelter and a comfortable resting area.

**3**  
**FREEDOM FROM PAIN, INJURY OR DISEASE**



by prevention or rapid diagnosis and treatment.

**4**  
**FREEDOM TO EXPRESS NORMAL BEHAVIOUR**



by providing sufficient space, proper facilities and company of the animal's own kind.

**5**  
**FREEDOM FROM FEAR AND DISTRESS**



by ensuring conditions and treatment which avoid mental suffering.

Animal Welfare is often expressed as THE FIVE FREEDOMS – which also apply to fish

FREEDOM FROM HUNGER AND THIRST (osmoregulation in fish)

FREEDOM FROM DISCOMFORT

FREEDOM FROM PAIN?, INJURY OR DISEASE

FREEDOM TO EXPRESS NORMAL BEHAVIOUR (migrations?)

FREEDOM FROM FEAR AND DISTRESS

<https://youtu.be/r1-sd9JUoIE>



[Compassion in World Farming](https://www.compassioninworldfarming.org/)



**Environmental - WQ**

**Handling (transport,  
crowding, netting,  
slaughter etc)**

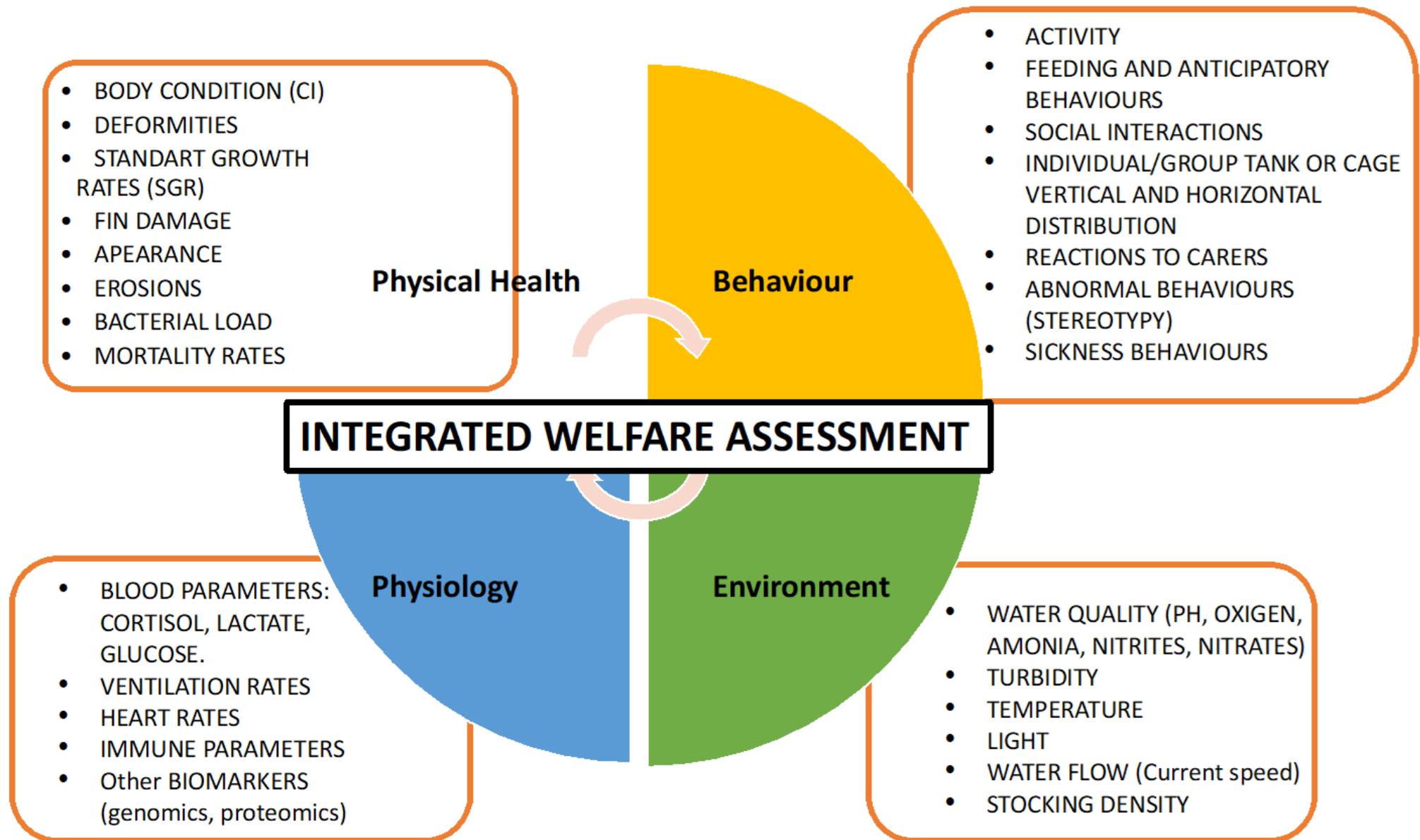
**Inappropriate densities  
(too high or too low)**

- Social contact, territorial behaviour, disease transmission

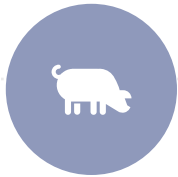
**Poor nutrition –  
including diet,  
starvation and feeding  
methods**

**Excessive or repeated  
treatments**

**Exposure to predators**



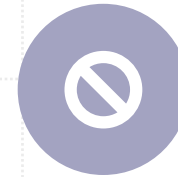
# OPERATIONAL WELFARE INDICATORS



**EASY TO MEASURE** (BY TRAINING FARM STAFF ) AND **INTEGRATED** INTO THE NORMAL HUSBANDRY PROCEDURES



**RELEVANT TO THEIR WELFARE**



**NON INVASIVE**



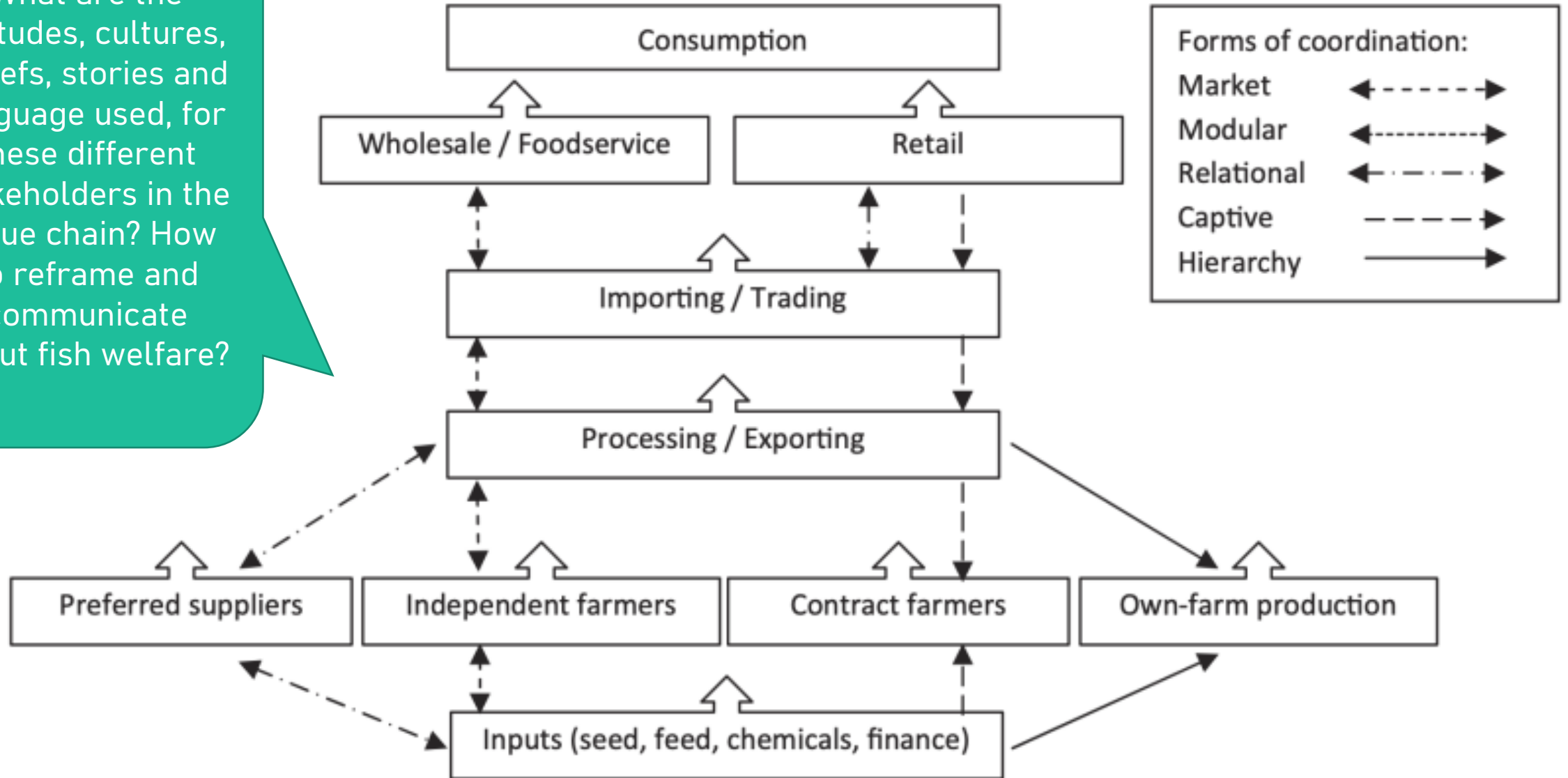
**NON LETHAL**




**VISUAL** : CAMERAS OR SENSORS , SONAR SYSTEMS.



What are the attitudes, cultures, beliefs, stories and language used, for these different stakeholders in the value chain? How to reframe and communicate about fish welfare?





# Improving Farmed Fish Welfare in Asia

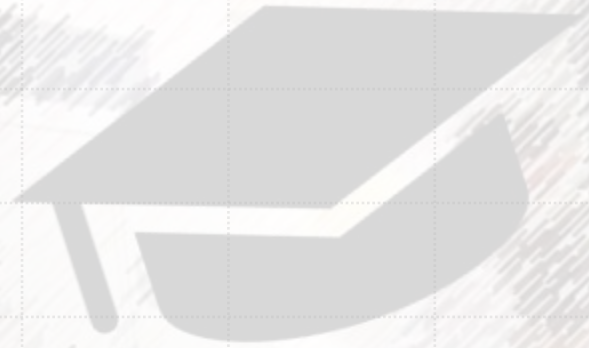
Project led by the Institute of  
Aquaculture at the University of  
Stirling supported by Open  
Philanthropy





# Training courses and materials





# MSc Studentships

