

# Fisheries products export training Vietnam

**On Risk assessment, HACCP auditing and  
EU legislation & monitoring**

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## Summary

IMARES and RIKILT developed a training program for fisheries inspectors and private sector quality controllers in Vietnam, in close cooperation with the Dutch Ministry of Economic Affairs, Agriculture and Innovation (EL&I) and the Dutch Ministry of Foreign Affairs (buza) and the Vietnamese fish inspection NAFIQAD. The training was held in the period 20-24 August 2012 in Nha Trang, Vietnam.

The topics discussed in the training were: Risk Assessment, HACCP auditing and EU legislation & monitoring.

In total 31 trainees followed the training. The training was positively evaluated by the participants, and characterised as 'very good and valuable', especially in relation to gaining more knowledge on the topic Risk Assessment. The training will on the longer term benefit to the export of safe seafood products to Europe, and enhance understanding between European and Vietnamese inspection services as well as cooperation in the case of emerging risk situations.

This training was financed by the Ministry of EL&I, and was given by Joop van der Roest (RIKILT), Marnix Poelman and Rian Schelvis (IMARES).

## **1 Introduction**

On the 13th of June 2011, Dr. Ir. Arjo Rothuis (IMARES) and The National Agro-Forestry-Fisheries Quality Assurance Department (NAFIQAD) – Ministry of Agriculture and Rural Development of Vietnam (MARD) had a meeting concerning the control of chemical and antibiotic residue in fish products of Vietnam exported to The Netherlands. On a question of the NAFIQAD director Dr. Ir. Arjo Rothuis had mentioned the possibility of the Dutch government supporting training in the field of fishery quality control and food safety for Vietnamese NAFIQAD. This was further elaborated with the Dutch government and resulted in a training proposal and budget. In close cooperation it was decided that the following topics needed to be addressed in the training programme:

- 1) Risk assessment for fishery products.
- 2) HACCP auditing in fishery production and processing companies.
- 3) EU regulations on food safety and monitoring programs. (monitoring program for certain substances and toxic residues thereof in animals and aquaculture products, the sanitation monitoring program for bivalve molluscs production areas).

In close contact with the Dutch Ministry of Economic Affairs, Agriculture and Innovation (EL&I), the Dutch Ministry of Foreign Affairs (buza) and NAFIQAD the training program was developed and commissioned in the period 20-24 August 2012 in Nha Trang, Vietnam by IMARES and RIKILT. This training is financed by the Ministry of EL&I.

## **2 Aim**

The aim of this project was to improve the general knowledge of the Vietnamese fishery processing sector and inspection bodies (competent authority NAFIQAD) in the field of risk assessment, HACCP auditing and hygiene and EU regulation on food safety and monitoring programs.

It was expected that this training programme would improve the food safety of fish products in Vietnam and thereby benefit the (quality of) export of fish products from Vietnam to the Netherlands.

## **3 Materials and Methods**

It was decided, In close cooperation with NAFIQAD, to set up the programme in such a way that all three topics could be followed by all participants. The topics were divided over 2 parts in the programme, and the majority of the participants expressed the wish to follow both.

The pre knowledge of the target group was described by NAFIQAD as being mainly fish inspectors with more than 5 years' experience in the field. Some participants were quality controllers from processing plants where the on-site visit was performed. The topic Risk Assessment was new for all participants. For the HACCP auditing it was decided to shortly refresh the trainees' knowledge on the HACCP principles and focus on the skills needed to perform a HACCP audit. For the EU regulation & monitoring it was decided to present the various legislations as a reference list and focus on the European system of setting chemical norms.

The trainers provided a program which was based on power point presentations, in combination with group working sessions discussing case studies. This was followed up sequentially to keep attention, and applicability as high as possible. Field trips to designated companies were performed to support the theoretical knowledge with practical applicable data. By doing so, experience could be shared between trainers and trainees. During the training an interpreter, very knowledgeable about the topic(s), was present to facilitate the lectures and discussions.

In preparing the training, the trainers had had contact with the Dutch Food Safety Authority (nVWA, Drs. G.L. Roessink) about actual issues regarding the imports from Vietnam. Input from the DFSA has been used for the EU legislation and monitoring part of the training.

The trainers had various expertise on the topics addressed. Marnix Poelman is a specialist in Aquaculture certification, EU-legislation, Shellfish Food Safety and Sustainable aquaculture. He has been in Vietnam before to monitor the quantity and quality of Pangasius pond effluent. Joop van der Roest is a specialist in Food Quality, Food/Feed Safety, Traceability, Quality systems, EU-legislation and a Qualified trainer with many years of experience in training projects in Indonesia. Rian Schelvis is a specialist in Seafood technology, Seafood quality, HACCP, Quality Management Systems & auditing and Certified trainer with experience in trainings in many different countries.

### Participants

The participants (29) for the training on Risk Assessment were all from NAFIQAD.

The participants (28) for the training on HACCP auditing and EU legislation & monitoring were mainly from NAFIQAD but also included two participants from fish exporting companies.

### Practical site visits:

NAFIQAD had arranged two site visits: First (day 2) to a shrimp farm and a shrimp processing company and secondly (day 4) a tuna processing company. These companies both export their products to Europe and facilitated the participants to perform the practical assignments.

### Programme

DATE / TIME	Content	Trainer
<b>Group 1. Risk Assessment</b>		
<b>Day 1: 20-08-2012</b>		
8h00 -8h45	Opening ceremony Introduction of trainers and WUR Introduction of participants and their expectations	NAFIQAD RS JR
8h45 – 10h00	<b>Risk analysis general introduction</b> <ul style="list-style-type: none"> <li>• Risk assessment</li> <li>• Risk management</li> <li>• Risk communication</li> </ul>	JR
10h00-10h15	Break	
10h15-11h45	<b>Risk assessment</b> <ul style="list-style-type: none"> <li>• Hazard identification</li> <li>• Hazard characterisation</li> <li>• Exposure assessment</li> <li>• Risk characterisation</li> </ul>	JR
11h45-13h15	<b>Lunch</b>	
13h15-17h00	<b>Risk assessment (continue)</b> Case introduction	MP/JR
<b>Day 2: 21-08-2012</b>		
8h30-11h30	Present the results of the case study Modelling risk assessment Make a check list for risk assessment to be used on the site visit this afternoon	JR
13h00-18h00	<b>Site Visit</b> (shrimp farm and shrimp processing Thong Thuan Seafood)	Nafiqad
<b>Day 3: 22-08-2012</b>		
8h30-11h30	Discussion on results of visits. EU procedures (EFSA) on implementation for risk assessment (risk assessment system, exchange	RS en MP JR

DATE / TIME	Content	Trainer
	information mechanism)	
14h00-17h00	Risk Ranger introduction and application with case	
<b>Group 2. HACCP auditing, EU regulations and monitoring</b>		
<b>Day 4: 23-08-2012</b>		
8h00-12h00	<b>HACCP auditing,</b> HACCP general introduction HACCP auditing implementation steps HACCP case introduction Introduction Auditing plan checklist to be used for the site visit Practical test on HACCP auditing during site visit	RS
13h00-18h00	<b>Site Visit</b> (to tuna processing plant Dragon Waves Frozen Food Factory) Results site visit Audit reporting	Nafiqad RS
<b>Day 5: 24-08-2012</b>		
8h30-12h00	Groups report of the HACCP audit result Discussion And Comments from Trainers	MP/JR
13h30-17h00	<b>EU regulation &amp; monitoring</b> <ul style="list-style-type: none"> <li>- Overview EU regulation on food hygiene and safety fishery monitoring program</li> <li>- Bivalve mollusc hygiene control</li> <li>- Netherlands experiences on developing and implementing the monitoring program</li> <li>- Contaminant regulation</li> <li>- Introduction Market monitoring</li> </ul> <b>Closing</b> Evaluation participants Evaluation lecturer Certificate of attendance to participants	MP  RS

MP = Marnix Poelman, RS= Rian Schelvis-Smit, JR = Joop van der Roest.

## 4 Evaluation

### 4.1 Results

**Risk assessment:** All participants learned about the theory of risk analysis, the steps taken in a risk assessment on a pair of hazard with product/process/contaminant. Besides that, participants also gained knowledge on the European Food Safety Authority implementing process of a risk assessment.

**HACCP auditing:** The right skills in HACCP auditing includes knowledge and qualifications in different areas of seafood science and technology pertinent to the products and processes of interest, in addition to confidentiality, objectivity and experience and skills in auditing and communication (ISO, 1993b). During this training the focus has been on practical skills in auditing; confidentiality, objectivity and communication.

**EU regulations and monitoring:** Participants gained insight in EU regulations applicable for Competent Authorities. The development of those regulations and its implementation in fishery monitoring programs (residue monitoring on aquaculture, hygiene monitoring on bivalve mollusc harvest areas, market monitoring).

## 4.2 Photo overview



Participants and manager at the shrimp farm



Group work



Joop van der Roest



Marnix Poelman



Site visit



Site visit



	
Site visit	Shrimp farm with on the background a container vessel.

### 4.3 Evaluation by participants

After the five days training 27 participants filled out an evaluation form. This was done anonymously and, if preferred, in Vietnamese (translated by NAFIQAD afterwards). The results were analyzed, a summary of the results are given in the table below.

Question	results
Relevance of the topics offered in the program	Good, useful, relevant (19), very good, very relevant for my job (7)
Quality of the instructors	Good (19), very good (6)
Method of presentation	Good (18), very good (3), other (5): answers directly to questions. Could give more practical examples directly with theory.
Quality of workshop materials	Good (19), Other (11): The translation of the EU legislation was lacking, some lectures were missing in the handouts, could have given more references and examples.
Quality of the case studies	Good (16). Other (13): For risk assessment it could have been more clear and specific. Short time for discussions
Quality of the practical site visits	Good (16) very good (7) and acceptable (4)
Did you miss any subject in this workshop	No (29)
What would you like to improve	More skills on risk assessment (15), and HACCP auditing (3). More time for practice and discussion. More case studies and examples of risk assessment to illustrate the situation (5). Skills to solve the uncertainty in Risk Assessment and to find missing data.

Question	results
What are some personal favorites of the training	The method of teaching/teachers (7) Risk Assessment (5). HACCP (3) Other (8): Discussions with colleagues. Risk Ranger. Comments of lecturer after the HACCP auditing. Nice overview of all EU regulations. Site visits. Theory alongside with practice.
Any other general comment	More training on Risk Assessment (3). More clear examples on Risk Assessment (2). Other (3): Very good interpreter with knowledge on the topic. More time needed.

#### 4.4 Evaluation by the trainers

In brief some points of attention on the training are described.

##### Preparation of the training

- Training preparation was not optimal:
  - o Though the training topics were set in cooperation with NAFIQAD, there was not enough insight in the exact needs per topic and the pre-knowledge of the participants and their field of work. This made it complicated to prepare the right cases and the content of the lectures.
  - o At the latest moment the number of participants and the venue was known.

##### During the training

- English communication is often a problem, also in this case. This was well solved by the recruitment of an interpreter, knowledgeable on the topic, Dr. Hung. Dr Hung was the director of NAFIQAD and has many years of experience in this field. On forehand he translated all the hand-outs into Vietnamese as well as the FAO guidelines on Risk Assessments. He has great insight in the field of work and has excellent teaching and translation skills. This made it possible to have valuable discussions even though the trainers could not fully participate.
- The facilities, such as hotel accommodation, training room, coffee breaks, lunches, air-conditioning, equipment for the training was excellent.
- The site visits were of high quality and very valuable for the training. Two company visits were made; one for Risk Assessment training and one for HACCP auditing training.
- The trainees worked very hard and participated in every task and assignment. During the site visit they respected the rules and process flow (from high care to low care area's) and were able to gain a lot of information in a short time. One of the skills that can be improved is the interview technique to ask more in depth questions during the auditing.
- The information could have been made more clear with practical examples.

## 5 Conclusions

The training for the NAFIQAD inspectors was very valuable and resulted in more knowledge on Risk assessment, HACCP auditing and EU legislation and Monitoring. This will on a longer term benefit to the export of safe seafood products to Europe, and understanding and cooperation with emerging risk situations.



## 6 Recommendations

Based on the evaluations of both the participants and the trainers we identified the following recommendations:

- A) Training on shellfish food safety issues
- B) Training on (new) analysis techniques for shellfish food safety (biotoxins)
- C) Advanced Risk Assessment training with more clear cases (prepared in close cooperation between Netherlands and Vietnam)

D) Follow-up training on specific topics identified by NAFIQAD.

E) Evaluation and discussion on Food Safety Issues/points for improvement based on the September 2012 inspection from the EU

## **7      Quality Assurance**

IMARES utilises an ISO 9001:2008 certified quality management system (certificate number: 57846-2009-AQ-NLD-RvA). This certificate is valid until 15 December 2012. The organisation has been certified since 27 February 2001. The certification was issued by DNV Certification B.V. Furthermore, the chemical laboratory of the Environmental Division has NEN-AND-ISO/IEC 17025:2005 accreditation for test laboratories with number L097. This accreditation is valid until 27 March 2013 and was first issued on 27 March 1997. Accreditation was granted by the Council for Accreditation.

## Justification

Report number: C104/12  
Project number: 4301103001

The scientific quality of this report has been peer reviewed by the a colleague scientist and the head of the department of IMARES.

Approved: Marloes kraan  
Researcher

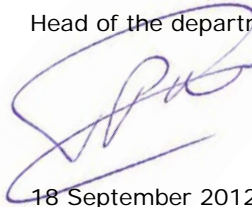
Signature:



Date: 18 September 2012

Approved: Tammo Bult  
Head of the department Fisheries

Signature:



Date: 18 September 2012

Appendix A: Participants list

Đơn vị thực hiện: BQL Dự án Hợp phần POSMA

**DANH SÁCH CÁN BỘ THAM DỰ KHÓA ĐÀO TẠO**

- Nội dung: Đánh giá HACCP, phân tích nguy cơ ATTP và phổ biến quy định của EU về chương trình giám sát ATTP thủy sản.

- Hoạt động: POSMA/2012/1.2.2.17

- Địa điểm: Tp. Nha Trang, Khánh Hòa

- Thời gian: 05 ngày, ngày 20-24/8/2012

Số TT	Họ và tên	Chức vụ	Đơn vị công tác	Xác nhận					Điện thoại	Địa chỉ Email
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Số TT	Họ và tên	Chức vụ	Đơn vị công tác	Xác nhận					Điện thoại	Địa chỉ Email
				Ngày 20/8	Ngày 21/8	Ngày 22/8	Ngày 23/8	Ngày 24/8		
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Số TT	Họ và tên	Chức vụ	Đơn vị công tác	Xác nhận					Điện thoại	Địa chỉ Email
				Ngày 20/8	Ngày 21/8	Ngày 22/8	Ngày 23/8	Ngày 24/8		
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Tổng số người tham dự: ..... 34 ..... 32 ..... 33 ..... 31 ..... 30

Người lập