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Programme Funded
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Group of States

Harmonisation of Legislation and Procedures related to the
Inspection and Certification of Fishery Products for Export - Sierra
Leone
Ref: CA001SLE

June 2009



Strengthening Fishery Products Health Conditions in ACP/OCT Countries



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**Harmonisation of Legislation and procedures related to the Inspection and
Certification of Fishery Products for Export – Sierra Leone
4th June - 12th July 2009**

June 2009

Richard Chivers

**Cardno Agrisystems in association with
Megapesca Ltd and MacAlister Elliott & Partners**

**The contents of this publication the sole responsibility of the contractor and can in no way be taken to
reflect the views of the European Commission**

The picture on the cover shows the beach and canoes at Kent Beach, Sierra Leone, looking out to the Banana Islands of
Dublin and Ricketts.

Module I
Strengthening National Health Control Capacity for Fishery Products
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ABBREVIATIONS

ACP	African, Caribbean and Pacific States (Lomé Convention IV)
ACP-OCT	African, Caribbean and Pacific States Overseas Territories and Countries
ACP-SFP	African, Caribbean and Pacific States Strengthening Fishery Products
ADB	African Development Bank
CA	Competent Authority
AWA	Anglophone West Africa Project 2005-2007
DG	Directorate General
EC	European Commission
EU	European Union
FPR 2007	Fishery Products Regulations 2007
FVO	Food and Veterinary Office
GHP	Good Hygiene Practice
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis and Critical Control Points
HC	Hygiene Certificate
IUU	Illegal Unreported and Unregulated Fishing
MCS	Monitoring, Control and Surveillance
MFMR	Ministry of Fisheries and Marine Resources
MHS	Ministry of Health and Sanitation
MoU	Memorandum of Understanding
PCBs	Polychlorinated biphenyls
PMU	Project Management Unit
SANCO	DG Health and Consumer Protection
SFP	Strengthening Fishery Products
SL	Sierra Leone
TA	Technical Assistance
ToR	Terms of Reference

LAYMAN'S SUMMARY

The purpose of the mission was to provide support to the Competent Authority (CA) in its development towards acceptance by the European Union (EU) of Sierra Leone as an exporting nation.

The Fishery Products Regulations (FPR) of Sierra Leone were found to be problematic and incomplete. The consultant recommended that they be redrafted. He also made recommendations to improve the operational capacity of the organisation and proposed changes to reduce the opportunity for corruption.

No procedures existed for the CA's operational requirements; a series of the most important were drawn up by the consultant in conjunction with the CA inspectors.

The consultant carried out basic training in seafood quality, hazard analysis critical control points (HACCP), risk analysis, evaluation of sanitary conditions, inspection protocols and evaluation of sanitary conditions on site.

Terms of Reference (ToR) were developed for future operational and training requirements.

EXECUTIVE SUMMARY

The CA of Sierra Leone (SL) was created under the powers of the Public Health Act 1960. Its official control activities lie within the Department of the Environment of the Ministry of Health and Sanitation (MHS). The CA had staff throughout the country numbering approximately 130. The consultant felt that this provision was far greater than would be required should a full risk analysis of inspection needs be undertaken.

In June 2007 the CA had very few financial resources. There was no provision for internet, little paper available, no toner for photocopying, little for printing and limited fuel for the generator that powered the site at Cline Town in Freetown. As a result electricity was often only available from mid-morning and was subject to interruption during the day. The latter affected the provision of training due to lack of lighting and digital projection and may have bearing on the CA's ability to hold temperature controlled samples.

There was a strong desire within the Ministry of Fisheries and Marine Resources (MFMR) for the activities of the CA to fall within their authority. By the end of the mission it was still unclear how the Ministry intended to achieve this, as permanent removal of the responsibility from the MHS would require a change in the law and also the movement of staff from their current positions in the MHS, a process that would need to be agreed on and allowed sufficient time to become established prior to inspection by the Directorate General Health and Consumer Protection (DG SANCO). It was the consultant's opinion that the CA should not be moved in the short term.

The consultant reviewed the legislation relating to fishing and fishery products, the primary objective being an evaluation of the FPR as these were the ones that directly concerned the CA.

The regulations were found wanting. They had clearly borrowed from the EU regulations and many of the EU elements were contained within them. However there were significant shortfalls, for example no information was available on live bivalve molluscs (there used to be an oyster culture industry before the civil war of 1991-2000 and the shallow waters to the north of the Sierra River may hold stocks of naturally occurring bivalves), errors were found in the notation of microbiological standards and the mixing of best practice with legal requirements led to anomalies

in which Good Manufacturing Practice (GMP) became a legal requirement rather than advice. Different EU regulations were intermixed throughout the document, making assessment of coverage very difficult to achieve.

Some parts of the EU regulations were found in checklists but not in the law, e.g. the cooking temperature of bivalve molluscs.

The consultant considered that the difficulties in determining whether there was equivalence between the EU and the SL regulations was of sufficient significance for a full redrawing of the SL regulations to be necessary.

A Sierra Leonean barrister working for the Food and Agriculture Organisation (FAO) on the Fisheries (Management and Development) Act 1994 agreed with these findings and it has been recommended that she contact FAO to provide an expert from Rome to redraft the regulations.

The consultant reviewed the internal compliance conditions of the staff and the opportunities for corruption. There were certainly circumstances where staff could be subverted from their duties, in particular the position of the Fisheries Observers on board fishing vessels, where they were nominally in the employment of the MFMR but were paid for by the fishing vessel operators.

Reports of transshipments of fish taking place outside Freetown Harbour (transshipment should, according to the 1994 Act only take place within the harbour) and of fishing vessels operating without Hygiene Certificates (HCs) were frequent.

An institutional analysis revealed that the CA comprised a staff complement of approximately 130 across the country. Work was duplicated and in many cases inspections were too frequent when considered on a risk analysis basis. The consultant recommended that a core of 10 specialist fish inspectors be trained to a high level.

The ToR required a manual of procedures to be produced. A series of eight of the most significant inspection procedures were created by three groups of fish inspectors, guided by the consultant using an established format.

The procedures were then put into practice on site along with checklists that were developed by the same teams. The inspectors were able to undertake practical demonstrations of each and identify the shortcomings in both their own descriptions of the procedures and the checklists they were using, before making adjustments to each.

The consultant carried out basic training with 39 inspectors and fishery observers. The subjects covered: seafood quality and hygiene assessment, fish spoilage, hazard analysis, risk analysis, evaluation of sanitary conditions in fish processing facilities (2) and on fish landing sites (2), inspection protocols, writing procedures, and introduction to checklists and practical experience of using them.

Further developments as a result of this mission included the findings from on-site inspections where the consultant was introduced to two (of four) landing facilities that were in the process of being built. As the two sites may have significance for other modules under the SFP programme the consultant made preliminary enquiries into what appeared to be significant shortcomings in both their layout and construction. At the time of writing no answer to the issues had been found.

ToR were proposed by the consultant in association with the CA and counterpart representative for further training in document control, auditing, evaluation of factory hygiene, and hazard analysis; as well as for the provision of internet access to all parts of the CA including the distant stations.

RÉSUMÉ OPÉRATIONNEL

L'AC ou autorité de certification de la Sierra Leone (SL) a été créée par les pouvoirs liés à la loi de 1960 sur la santé publique. Ses activités de contrôle officiel au sein du service de l'environnement du Ministère de la santé et des installations sanitaires (MHS). L'AC emploie un effectif d'environ 130 personnes dans tout le pays. Le consultant a considéré que cette disposition, allant beaucoup plus loin qu'il n'était exigé, nécessiterait la réalisation d'une analyse complète des besoins d'inspection.

En juin 2007, l'AC avait très peu de ressources financières. Il n'y avait pas de prestation de service d'accès à Internet, peu de papier disponible, pas de cartouche d'encre pour le photocopieur, peu à imprimer et le fioul était limité pour le générateur qui alimentait le site à Cline Town à Freetown. Par conséquent, l'électricité était souvent disponible à partir de la mi-matinée, susceptible d'être interrompue pendant la journée, perturbant le déroulement de la formation dû au manque de lumière et de projection numérique et affectant le soutien de la capacité de l'AC au maintien à la température des échantillons contrôlés.

Le Ministère des pêches et des ressources marines (MFMR) souhaitaient fortement que les activités de l'AC relèvent de leur autorité. D'ici à la fin de la mission, personne ne savait encore comment le Ministère parviendrait à l'atteindre, étant donné que l'exclusion permanente de responsabilité du MHS exigeait une modification de la loi et également la délocalisation des postes actuels du personnel au MHS, ce processus devant être accordé et sa création nécessitant suffisamment de temps avant l'inspection par le Conseil d'administration de la santé et de la protection du consommateur (DG SANCO). Le consultant était d'avis que l'AC ne devrait pas être délocalisée à court terme.

Le consultant a révisé la législation relative à la pêche et aux produits de la pêche, l'objectif primaire et l'évaluation du FPR (Forum régional permanent des acteurs professionnels de la pêche artisanale en Afrique) qui concernaient directement l'AC.

Les règlements considérés comme insuffisants ont été clairement empruntés aux règlements de l'UE et de nombreux éléments de l'UE y étaient contenus. Cependant, on a constaté des déficits, par exemple, qu'on ne possédait rien sur les mollusques bivalves vivantes (utilisées dans l'industrie de la culture des huîtres avant la guerre civile (1991-2000) et les eaux peu profondes au nord de la rivière Sierra pouvant contenir des stocks de bivalves apparues naturellement), ayant trouvé des erreurs dans la notation de normes microbiologiques et le mélange de la meilleure pratique aux exigences légales ayant causé des anomalies, la bonne pratique de fabrication (GMP) était devenue une exigence légale plutôt qu'un conseil. Les différents règlements de l'Union européenne (UE) ont été mélangés à travers le document, évaluant la couverture très difficile à réaliser.

On a trouvé quelques parties des règlements de l'UE dans les listes de contrôle, mais pas dans la loi, par ex., concernant la température de cuisson des mollusques bivalves.

Le consultant a considéré les difficultés à déterminer si l'équivalence entre l'UE et les règlements de seconde vie était suffisamment importante, nécessitant le retraçage complet des règlements de seconde vie.

Un avocat de la Sierra Leone travaillant pour la FAO sur la loi relative à la gestion des pêcheries (administration et développement) de 1994 est d'accord avec ces conclusions et lui a recommandé de contacter la FAO pour qu'elle dépêche un expert de Rome qui redéfinisse les règlements.

Le consultant a révisé les conditions de conformité internes du personnel et les risques occasionnels de corruption. Il y a certainement des circonstances, dans lesquelles le personnel est susceptible d'être corrompu lors de l'exécution de ses tâches, en particulier à son poste d'observateurs des

pêcheries à bord des bateaux de pêche où il est effectivement employé par le MFMR, mais payé par les opérateurs de bateau de pêche.

Les rapports de transbordement du poisson réalisés à l'extérieur du port de Freetown (le transbordement ne devrait avoir lieu qu'à l'intérieur du port conformément à la loi de 1994) et des bateaux de pêche opérant sans certificats ont été fréquents.

Une analyse institutionnelle a révélé que l'AC comprenait du personnel supplémentaire, environ 130 personnes à travers le pays. Le travail était doublé et dans beaucoup de cas, les inspections étaient trop fréquentes, considérées sur la base de l'analyse du risque. Le consultant a recommandé qu'un noyau de 10 inspecteurs spécialistes du poisson suivent une formation de haut niveau.

Les termes de référence (ToR) ont exigé la production du manuel de procédures. Une série de huit procédures d'inspection parmi les plus significatives a été créée par trois groupes d'inspecteurs du poisson, guidée par le consultant en utilisant le format établi.

Les procédures ont été alors mises en pratique, ainsi que les listes de contrôle mises au point par les mêmes équipes. Les inspecteurs ont été capables d'entreprendre des démonstrations pratiques de chacune et d'identifier les points faibles, aussi bien dans leurs propres descriptions que les listes de contrôle utilisées, puis de les adapter à chacune.

Le consultant a assuré une formation de base avec 39 inspecteurs et des observateurs de poisson. Ce sujet recouvrait le poisson, la qualité des fruits de mer et l'évaluation de l'hygiène, le poisson comme denrée périssable, l'analyse du risque, l'évaluation des conditions sanitaires des installations de traitement du poisson (2) et sur les sites de débarquement du poisson (2), les protocoles d'inspection, les procédures d'écriture, l'introduction aux listes de contrôle et leur expérience pratique d'utilisation.

Les autres mises au point résultant de cette mission incluaient les conclusions des inspections sur place, au cours desquelles le consultant avait pris connaissance de deux (parmi quatre) équipements de débarquement en cours de construction. Étant donné que ces deux sites peuvent être significatifs pour d'autres modules sous le programme SFP (programme de renforcement des conditions sanitaires des produits de la pêche), le consultant a effectué des recherches préliminaires, dans lesquelles des points faibles sont apparus significatifs, aussi bien dans la conception que dans la construction. Au moment de la rédaction, on n'a trouvé aucune réponse aux problèmes.

Des termes de référence ont été proposés par le consultant en association avec l'AC et le représentant homologue concernant une autre formation au contrôle du document, l'audit, l'évaluation de l'hygiène à l'usine, l'analyse du risque, également la prestation d'accès à Internet pour toutes les autres parties de l'AC, y compris pour les postes à distances.

1 INTRODUCTION

As of June 2007, Sierra Leone was not authorised to export fishery products to the EU. The Strengthening Fishery Products (SFP) programme had made a number of interventions through the SFP Anglophone West Africa project (AWA), which ended in 2007, to assist the country to achieve harmonisation with EU sanitary regulations. In particular, legislation was partially updated, some training of CA personnel was carried out, an Environmental Monitoring Programme (EMP) partly prepared, laboratory needs assessed and the 'Harmonisation Dossier' partially prepared.

The general objective of the present mission was to identify and initiate a series of steps needed to support the CA in its legislation and evaluation of the sanitary conditions required for exported fishery products, with the ultimate aim of achieving harmonisation with EU sanitary requirements.

The following broad issues were those currently identified as the major impediments affecting Sierra Leone's prospects of EU accreditation:

- a) inadequate or non-harmonised legislation and sanitary rules governing hygiene and sanitary conditions of fishery products intended for export;
- b) lack of an appropriate organisational structure for the CA;
- c) absence of operational arrangements or procedures for the CA;
- d) shortage of appropriate skills and knowledge among fishery inspectors, observers and other relevant personnel.

The main outputs from the mission were:

- recommendations for updating and improving the legal framework for approval of fish processing establishments and fishing vessels,
- basic training of staff in inspection procedures, evaluation of sanitary conditions, HACCP, risk analysis, fish quality, safety and spoilage;
- recommendations on additional changes needed or processes to be followed to promote transparency and preclude corruption;
- an organisational framework developed for the Competent Authority;
- documented methodology and a manual of procedures produced for the inspection, certification and approval of products, premises and vessels.

The mission began with the arrival of one expert from MEP (consortium Cardno Agrisystems/MEP) on 4th June 2009 and ended on 12th July 2009. During this time the expert:

- a) spent one week reviewing the existing legislation and made recommendations for changes;
- b) one week assessing the organisational status of the CA and drawing up preliminary documented operational procedures in conjunction with the inspectors from the CA;
- c) and three weeks carrying out basic training as above.

The body of this report details the methodologies, findings, conclusions and recommendations of the mission.

2 CONTEXT OF THE ASSIGNMENT

2.1 Work environment

The fisheries sector is seen as a key potential contributor to the post war (ended 2000) recovery process. Sierra Leone's marine and freshwater fisheries include both industrial and artisanal components, and produced about 148,000 tonnes in 2006. Fishery product exports in that year were

valued at about USD 11 million (FAO fishery statistics). Fisheries contributed 37.8% of agricultural GDP, and 9.4% of total GDP (FAO fishery country profile).

This mission was initiated at the request of the Sierra Leone CA with the backing of both the MHS and the MFMR. The latter, whilst having no actual power over the CA's activities in law, had a particular interest as both the Minister for MFMR and the Director of Fisheries were very keen for the CA to be moved to the MFMR. Throughout the mission no reaction to this was received from the Minister of Health and Sanitation and comments from the staff of the CA were uncommitted.

The Minister of Fisheries was very energetic in driving forward the plan to have the CA inspected by DG SANCO at the earliest possible time. At the time of writing that inspection was due in exactly three months time (19th October 2009), representing an extremely tight timeframe in which to gain the best possible result from the inspection.

The CA itself was housed in small offices in a complex of single storey buildings owned by the MHS. Four rooms provided accommodation for the Head of the Environmental Health Department, his immediate subordinate the Head of the Food Section, the Administration Officer, and the Environmental Health inspectors.

A new building to be used by the CA was to be completed at the end of July 2009 a few metres from the present building. The Head of Environmental Health was to move there but the Head of the Food section was to remain in the previous accommodation.

The CA's workload was quite considerable as they applied controls not only to fish and fishery products but to all foodstuffs and the department was poorly resourced. Whilst it had a staff complement of approximately 130 throughout the country of which approximately 20 worked in Freetown, the head office constantly suffered from shortages of paper, printer consumables and power supply (electricity was frequently unavailable until after 11:00) and most significantly, did not have its own internet access. Availability of vehicles was often mentioned and the lack of ability to pay for fuel was a matter of some robust comment. Similarly the lack of water transport made it impossible for the inspectors to reach fishing vessels or reefers at sea without reliance on the vessel owners, which made them beholden to the persons they were evaluating.

One outlying station was visited at Tombo (70km from Freetown), where a lack of modern communication facilities (landline telephone and internet/email) made reporting into HQ a difficult matter. Communication was usually by privately owned mobile phone.

The CA had offices in each of the regions, each with several tiers of staff, with the task of inspecting food outlets and manufacturers (although not all would inspect fish). Part of the task of the CA was to inspect fishing vessels prior to their being granted the right to fish (for a fee). Whilst this was the usual practice the fact that vessels could call in at any one of a number of ports (rather than only Freetown) made it possible for the vessels to obtain a fishing licence without the sanitary certificate.

The purpose of the SFP mission Module 1 was the harmonisation of legislation and procedures related to the inspection and certification of products for export, which sits at the heart of the programme to support Sierra Leone in its growth towards becoming a fishery product-exporting nation. Three other modules that formed the complete programme: Module 2 support to laboratories and technical institutes, Module 3 assistance to exporting companies and Module 4 support to small-scale fisheries. The modules were interlinked and co-ordinators for each stayed in contact and transferred information relevant to the other projects.

At the same time a programme of stock assessment was being undertaken by the MFMR and FAO. It was due to report at the end of 2010 but preliminary data indicated that major target species in both demersal and artisanal fisheries were either overfished or were at capacity. This information could prove vital to projections by private investors as well as by the national fisheries authorities.

Illegal, unreported and unregulated (IUU) fishing was known to be widespread in Sierra Leonean

uncontrolled waters.

For reference, the CA are not available on Friday afternoons as most are Muslim and attend Friday Prayers. The CA do not work Saturday or Sunday.

2.2 In relation to other Technical Assistance (TA) and development initiatives

2.2.1 New Landing Sites

In addition to the programme of interventions under the SFP, mentioned above, there are four new artisanal landing sites being developed in Sierra Leone, paid for by the African Development Bank (ADB). The consultant was able to visit two of these new developments (Tombo and Goderich) and was surprised to find that they seemed most unlikely to meet international standards, let alone to be suitable for hygienic production of safe food for the local community.

This seemed like an opportunity lost, since the changes needed to bring the sites to a standard which would prove acceptable to the international market were relatively obvious. Furthermore if this option were not taken, there were no other major developments in the pipeline that would provide an export category facility, meaning that the artisanal landings would be restricted to the local market for years to come (the only other known landing site of a high enough standard that was available to the artisanal sector was Kissy Dockyard in Freetown).

Refer to 4.3.1 below.

2.2.2 New Laboratory Facilities

Work by the Module 2 (Laboratories) consultants, carried out earlier in 2009 identified the laboratory equipment needed to provide accredited laboratory facilities and as a result procurement of the equipment was begun.

On 10th July 2009 however, the Director of Fisheries stated at the debriefing for Module 1 that equipment for a lab was already in Freetown (understood to have been paid for by UNIDO), that the laboratory building would be completed in three weeks (31st July 2009) and that staff were available to run the lab. The consultant from Module 1 requested from the Director details of the supplied equipment and of how the lab was to be populated and organised. That information should, according to the Director, become available to him during the week commencing 20th July 2009 (the time of writing this report). Once received it will be passed to the contractor for Module 2.

The Director and his Minister understandably stressed that they did not want the procurement by Module 2 to be cancelled at this stage in case it turned out that there were in fact shortages of equipment. The consultant assured them that the only issue was that duplication should be avoided.

Refer to 4.3.2.

3 METHODOLOGY

The work of the expert was divided into four main parts:

Evaluation of the legislation

1. organisational analysis
2. preparation of procedures
3. training

3.1 Evaluation of the current legislation

The primary legislation that affected fish as a food was FPR; of secondary significance was The Fisheries (Management and Development) Decree 1994 (now referred to as an Act). The latter dealt with such matters as fisheries management, licensing of vessels, conservation measures,

monitoring, control and surveillance (MCS) and legal proceedings; therefore, whilst significant, the Act had less direct impact on the process of official controls than the Regulations.

3.1.1 Methodology

The purpose of the assessment was to test for equivalence between the Sierra Leonean regulations and those of the EU. The physical structure of the Sierra Leonean regulations (see 4.1.1 below) made the task laborious and the lack of similarity in presentation made a matrix approach, previously used by the consultant in other missions, impossible. Instead, each regulation was read individually and its corresponding reference sought in the consolidated EU regulations.

Reference was made by the consultant to the legislation cited by DG SANCO in their Pre-mission Questionnaire but no source that covered this entirely was found in the Sierra Leonean regulations.

3.2 **Organisational Analysis**

3.2.1 Methodology

The consultant undertook analysis of the status of the CA in consultation with the Head of the Food Unit.

Job descriptions, details of responsibilities and conditions of service could not be made available.

4 **PERFORMANCE IN RELATION TO TERMS OF REFERENCE**

4.1 **Response to opening paragraphs in the Terms of Reference**

Issues to be addressed in ToR:

4.1.1 Inadequate or non-harmonised legislation and sanitary rules governing hygiene and sanitary conditions of fishery products intended for export

The regulations comprised a small dense A5 volume of 345 poorly photocopied pages bound with a hard cover and glued spine. From the point of view of an auditor, it presented handling problems which made the document impossible to hold open whilst consulting comparative legislation and therefore a difficult document to work with. The problem would have been surmounted had the book been in larger format and ring bound. In the event it was the only form of copy available, there was no electronic version and the person who wrote the law was a Ghanaian employed by the AWA project in 2005-7, now unidentifiable.

The review of the legislation took the full six days estimated in the ToR and could have taken longer had the expert considered that a point-by-point comparison would have drawn out more useful evidence but that there was sufficient to conclude that further development of the legislation was required.

4.1.2 Lack of an appropriate organisational structure for the CA

The FPR 2007 and the Harmonisation Document sent to DG SANCO both included the same organogram illustrating the structure of the CA. The diagram was accurate in most parts but the element 'Professional Services' (Sch 1) was not correct (see Section 4.2.1 below).

4.1.3 Absence of operational arrangements or procedures for the CA

The CA operated without any documented procedures. This lack was addressed in workshop, seminar and practical environments. See Section 4.2.3.

4.1.4 Shortage of appropriate skills and knowledge among fishery inspectors, observers and other relevant personnel

The skills shortage was first assessed by asking the delegates what their jobs were and what training they had already received. The response was mixed. That the personnel held different job functions

was already known but the level of their previous training in HACCP for example was not evident. There were several levels of knowledge, but although training and materials had been given by the AWA Project the knowledge and experience of staff in the practical application of HACCP was not sufficiently developed.

4.2 Response to each of the specific duties

The specific duties of the expert were listed in the ‘Activities of the Consultant’:

4.2.1 *Verify the current status of the legislation and regulations relating to hygiene and sanitary conditions of fishery product exports, and propose necessary changes, taking into account the existing texts and the need for measures to preclude corruption. Where feasible, update the legislation and sanitary rules to achieve compliance with EU requirements*

The main points of the Sierra Leone FPR regulations were drawn from EU regulations 178/2002 and 852/853/854/882 of 2004 and 2073/2006 (but there are a total of about 15 to which DG SANCO refer when inspecting a CA’s official control capability). However regulations 75 to 221 (out of 239) incorporated ‘Best Practice’ and as both were couched in numbered regulations the Best Practice became a legal requirement rather than advisory GMP and Good Hygiene Practice (GHP).

The consultant did not consider that the Sierra Leonean FPR were equivalent to those of the EU (see below) although they did try to confer equivalence in Regulation 24, which stated that that their regulations are ‘*supplementary to the requirements of the legislation of the country to which Sierra Leone exports, as follows:*’. However, the fact that the Sierra Leonean CA did not have regular internet access to changes in the EU law belied this claim and there have been no actual amendments made since 2007.

The regulations contained inaccuracies, not least the CA’s organogram, which was put together as a proposal but which is included in the regulations and the harmonisation document as fact, when in reality the ‘Professional Services’ in Schedule 1 have never been created.

Other examples of inconsistencies that constitute reasons for redrafting the regulations were:

1. SL Reg 192 (on cooking molluscs) used identical wording to the matching EU regulation 853 but the latter also includes time-temperature relationships including figures and times. In the absence of a similar statement it could not be said that there was complete equivalence as the EU presumably placed the time-temp specifics for a reason and the same end MAY not be achievable without it. The time-temperature regime was found in an out-of-date checklist.
2. The Sierra Leonean regulations are laced with inaccuracies, e.g. numbering (Part X is Part IX and vice versa), misspellings (‘dirty recipients’ instead of ‘dirty receptacles’ Reg 180 1. (d) i)), and repetition of the same hygiene requirements in different activities (instead of first creating a general requirement as in EU Reg 852/2004). E.g. training commensurate with the job activity was mentioned in all the GMP (Best Practice) sections, transport, manufacturing etc. making the overall system bulky.
3. They were also highly prescriptive as they include GMP as legal regulations. It was therefore a legal requirement in Reg 193 that shrimp processors ensure that ‘All tanks used for washing shrimp *shall* (writer’s italic) be supplied with a constant flow of water, sufficient to replace the contents of the tank every ½ hour’. While there was nothing of this nature in the EU regulations, here it was demanded by law due to the use of the word ‘shall’ which is defined by the description ‘denotes a mandatory requirement’.
4. Reg 143 on sanitary soundness states that ‘Industry or Food Unit can be in charge’ of systematic and random sampling. This would be difficult to enforce.

5. There were also omissions; e.g. consultant could find no mention of the clause referring to Ruvettus (Gempylidae,) in the poisonous fish section, as mentioned in 854 Annex III Chpt II Part G 2.
6. The Sierra Leonean regulations included a Third Schedule referring to Reg 192(5) micro parameters for cooked molluscs and crustaceans. The schedule listed E. coli values of $m = 10/g$, $M = 100/g$ and $c = 1$ each of which is at variance with EU Reg 2073/2005 by a factor of 10 ($1/g$ and $10/g$ respectively) – while it is possible that the use of ‘ $c = 1$ ’ in the Sierra Leone regulations (‘ c ’ had the value ‘2’ in the EU legislation) may simply reflect the applying of tougher conditions by Sierra Leone, this seemed unlikely. Furthermore it defines M as ‘the acceptability limit beyond which the results are considered satisfactory’. The consultant believed that should be ‘unsatisfactory’.
7. Live bivalve mollusc legislation was not included at all, other than in general terms of safe handling in the factory and transport.
8. The organogram was inaccurate.

These inaccuracies would be sufficient to raise questions in the mind of an inspector from the FVO. In this respect the consultant considered that redrafting was the best option, that the EU format be followed exactly and that the CA have their specific arrangements placed within that framework.

4.2.2 *Review and make recommendations on the organisational structure of the CA and the operational arrangements under which it should work. Where feasible, support the practical implementation of the recommendations made*

The CA was overpopulated, with staff carrying out repetitive inspections that demanded the collection of the same data (according to the checklists used e.g. the names and designations of factories and the type and quantity of fish being handled) that was of little or no value to the CA.

New checklists were drawn from the Manual/Handbook for the Execution of Sanitary Inspection of Fish as Raw Material and Fish-Products as Food for Human Consumption. These were implemented during practical assessments in the field and adjusted in workshop settings.

The consultant noted that there was strong competition from the MFMR for the ownership of the CA in preference to its position within the MHS’s Environmental Health Department. The Ministry’s case was put vigorously by the Director of Fisheries during the end-of-mission in-country debriefing meeting on the grounds that the CA was not carrying out its appointed duties and was under-resourced, whilst the Fisheries Ministry had staff who understood fish, had the resources and were determined to carry out the duties effectively. No indication was given during the meeting as to the means by which the personnel in the CA, who had considerable knowledge of food safety would be used, shared or re-housed at the MoF. The discord between the Ministries unsettled the two teams and was causing disruption and haste in the preparations for the planned FVO visit on 19 October 2009.

Subsequently, during the Brussels mission debriefing, discussions with the representative of the Embassy of Sierra Leone in Brussels (Mr. A George) led to the suggestion that he write to both ministers to suggest they form an inter-ministerial committee to determine out a way forward. The consultant drafted a letter to Mr. George detailing the issues that required clarification, and this was subsequently forwarded to the Embassy for follow-up.

4.2.3 *Prepare a manual of procedures for the CA, covering (but not necessarily limited to) the following topics:*

- a) routine inspection of fishery products manufacturing
- b) approval of facilities, including establishments and vessels
- c) surveillance of port activities (transshipment and other)

- d) surveillance of sanitary conditions for water, products and personnel
- e) surveillance of potential contaminants and presence of residues
- f) the need to keep trace of products
- g) the adoption of strategies to avoid corruption
- h) the certification of products for export

The consultant prepared a number of basic procedures using a document template from a tried and tested source, before proceeding to work with the groups in a workshop format in order to determine true descriptions of the work undertaken by the inspectors. Despite being a lengthy process that involved much argument and revision, this was the only way to compile procedures that could be recognised and respected by inspectors. By the end of the mission, procedures were in place for:

- Routine Inspection
- Approval of Establishments and Vessels
- Surveillance of Landing Sites
- Product Traceability Inspection
- Inspection Staff Training
- Corrective Actions Follow-up and Closure

In addition the following procedures were in draft form:

- Monitoring Contaminants and Residues (awaiting advice from laboratory specialists)
- Auditing HACCP and Risk Analysis
- Internal Compliance
- Inspection of Sanitary Conditions, Water and Personnel
- Document Control

The need for the following additional procedures was recognised:

- Sampling Procedure
- Procedure for legal action

4.2.4 Provide practical support to the CA in implementing the procedures established in the manual, and in establishing and maintaining an operational system and appropriate working practices to deal with the inspection process, approval of facilities and certification of fishery products

Refer to 4.2.1. The staff took an active part in compiling the procedures, practiced with them in real-life situations and made changes where deemed necessary as a result.

Discussions with the staff revealed an underlying dissatisfaction with the manner in which some fishing vessels obtained their fishing licenses without first having recourse to the CA for an HC. Obtaining the latter is a prerequisite of the Memorandum of Understanding (MoU) between the MFMR and the MHS dated August 2007.

Furthermore, the inspectors and observers reported the presence of dogs and cats on board foreign vessels and that some vessels transhipped fish outside the Freetown harbour, which itself was a contravention of the Fisheries Act 1994.

These actions on behalf of the fish vessel operators displayed an arrogance that left the CA humiliated and action needed to be taken to redress the situation.

4.2.5 Carry out basic training workshops and on-the-job training on seafood quality and hygiene assessment, evaluation of sanitary conditions in fish processing facilities, risk analysis and the application of HACCP methodology, and other relevant topics as required by inspectors and fishery observers

Training was provided using workshop, seminar and PowerPoint techniques as well as practical experience in on-site environments.

The staff all participated well and the evaluation feedback indicated an average response of 90% approval.

The indication was that staff particularly appreciated the practical sessions, where the theory was worked through in a real situation. It was also a valuable experience for the consultant who was able to gauge the degree of current understanding of sanitary evaluation skills within the CA.

4.2.6 Draft terms of reference for complementary actions by the SFP Module 1, including training programmes and activities for the inspection service officers and industry technicians, that will assist Sierra Leone to attain full compliance with EU rules

ToR were drafted for:

- a. Further training in HACCP, Risk Analysis, auditing, sanitary evaluation, fish spoilage and aseptic sampling techniques.
- b. Visits by 5 members of CA staff to English speaking (UK) primary processing establishments, ready-to-eat processing establishments, landing sites, markets and bivalve depuration facilities to evaluate sanitary assessment techniques
- c. The FPR to be redrafted in line with EU food and feed regulations plus any other regulations referred to in the DG SANCO Pre-mission Questionnaire to be put into Sierra Leone legislation.

4.3 Additional tasks not covered in the Terms of Reference

4.3.1 Landing sites

Landing sites at Tombo and Goderich were inspected as part of the inspectors' practical training. They exhibited both existing artisanal landing beaches and new facilities under construction (funded by the ADB) comprising a jetty, a raw fish processing hall, a fish drying (preparation of cooked/dried/smoked ready-to-eat fish) hall, changing facilities for fishermen, a generator building, an administration block, water tank, fuel station, boat repair building and a boundary wall.

Questions regarding the operational arrangements for the sites were also raised, for example, which members of the public would be allowed to work in the new facilities, who would own the fabric of the buildings and be responsible for its maintenance, who controlled the finances, had the local people actually been consulted in what they wanted (evidence of previous imposed developments at Goderich indicated the perceived improvements were rejected by the populace).

It immediately became clear that the sites would neither meet international standards nor provide facilities for producing safe food for the local market. The whole enterprise was questionable and the point was made both in conversations with the local counterpart from the fisheries ministry and at the final debriefing.

Another consultant, in conversation with the ADB, reported that the bank had expected to find landing sites able to produce products of export quality.

The consultant reviewed the current position with the site engineers, obtained contacts for the design company (Ideas, Freetown) and reported his findings to the co-ordinator of Module 1 to be shared with the co-ordinator of Module 3 (small-scale fishing).

4.3.2 Laboratory and analytical facilities

With reference to 2.2.2 above. Not only was the information gathered and disseminated to the Module 2 contractor but the issues raised (existing equipment, staffing, organisational arrangements) were followed up with the Sierra Leone authorities. At the time of writing the matter was still open but as soon as any information is received it will be handed over to the Module 2 staff.

The requirement for the CA to commence analyses on fish products and processing water was a pressing matter that would have a direct impact on the department's results in the forthcoming DG SANCO inspection, whose inspectors wish to see a 'working system'. No monitoring had been undertaken to date and so on behalf of the CA the consultant approached the only reference laboratory in the region capable of undertaking some of the testing needed, the Ghanaian Standards Board. A full list of all the tests was included and a price for the work was requested. Unfortunately, although a reminder was sent, no reply had been received from the Board at the time of writing. A telephone conversation with one of the managers at the Board at the time of writing elicited an acknowledgement that the email would be attended to.

During the end-of-mission in-country debriefing on 10 July 2009, the Director of Fisheries informed the meeting that the construction of a laboratory would be completed within three weeks, i.e. by Friday 31 July 2009. The Director further states that equipment for the lab, paid for by UNIDO, was already in Freetown and that staff for the lab were available. This raised a concern with the consultant, who was aware that SFP Module 2 is preparing a request for tenders to supply laboratory equipment, and who pointed out to the meeting that duplication must be avoided. The Director did not have a list of the supplied equipment with him but said it would be made available later. Subsequently, after the conclusion of the field mission, the consultant requested the following information by e-mail:

- Which government department bears responsibility for the construction of the laboratory;
- Which government department will own and finance the laboratory;
- Has a budget been agreed for running it, including, staff wages, purchase of consumables, permanent electricity supply;
- A description of the management structure and the staff complement;
- Equipment inventory, and identity and contact details of the donor concerned.

At the time of finalising the present report (26 August 2009) the requested information had not been received, only an email from the Deputy Director to say that the laboratory construction had not yet been completed.

5 DISCUSSION

5.1 Legislation

The legislation encountered during this mission lacked breadth (there were many instances of supporting legislation, such as elements of EU labelling regulations, not being present), although it has to be said that time constraints only allowed for an evaluation of the fishery products legislation. Furthermore the FPR of 2007 were disappointing; they were inaccurate, difficult to read, prescriptive and badly mixed with best practice. If Sierra Leone is to become an effective exporter in the world fish market it requires legislation that is clear, simple and recognisable to international

auditors. Matching its style of presentation and content with existing legislation in target markets would benefit inspectors both in-country and abroad; auditors like their job made easy and recognisable regulations would greatly assist. The Sierra Leonean regulations would read fluently and would be instantly recognisable to a European inspector if they followed the EU format.

To summarise:

1. Copying saves reinvention: EU regulations are sound and cover everything the 'customer' (the EU) demands; replication is therefore the obvious option.
2. Copied versions are easy to update; amendments would simply slot in.

5.2 Internal Compliance/Corruption

There were a number of areas in which corruption could take hold. Obviously it is at these points that the private sector could benefit; therefore, licenses to tranship, transshipment outside of Freetown Harbour, grant of fishing licenses without HCs, Fishery Observers being paid for by the fishing companies, and the same Observers being required to carry out activities for the CA as well as the MFMR (whilst all the time being quartered on a fishing vessel that provided accommodation, food, pay and companionship) all contributed to a system where there the potential for breach of internal compliance was almost uncontrolled. The sanctions against staff being ineffective, should cash change hands it would leave no trace and therefore there would be nothing for the management to act on.

Closely related to this was the attitude of the fishing industry to the CA. One report suggested that the CA officers were refused access to a vessel, another that fishing vessels undertook transshipment outside of Freetown Harbour in contravention of the Fisheries Act 1994 and there were several reports of fishing companies obtaining licenses to fish from the MFMR without first obtaining an HC from the CA, in contravention of the MoU dated August 2007 between the MFMR and the MHS.

5.3 Organisational Structure

The organisation of the CA was typical of many government departments in developing countries; it was overpopulated, with staff carrying out tasks that were unnecessary (when inspection frequency was considered on a risk basis) and jobs were superfluous (too many inspections in too little time e.g. at landing and then again on arrival at the factory, which may only be metres away). The CA was in effect carrying out the private sector's quality control functions. Fish was of course only a part of the CA's function, which left it with a very wide remit; it would be logical for it to commit a dedicated staff of specially trained officers to the task of fish inspection.

The CA was also very poorly equipped. For food inspectors not to be provided with hand-held thermometers was a direct indictment of central government's lack either of commitment to food safety, of understanding of the subject, or of financial ability to support its staff and its due diligence requirement. In any case the staff could not be seriously considered as Environmental Health professionals when lacking essential equipment of this nature.

Another aspect to the needs of this department was the age range. Most of the staff with the greatest experience and training were nearing retirement age. A skills gap will be created when older staff leave, as younger trained staff have been head-hunted by the private sector. There was a need for trainer training as well as for inspection skills training.

5.4 Documented Procedures

A basic set of procedures was created by the mission and the trainees were left with clear instructions to use all the tools created during the period. They were also to adjust the existing procedures and add further procedures as practice and need demanded.

Once again, the ToR did not allow sufficient time for the process of procedure writing. The consultant had considerable experience both of writing procedures and of quality management systems and quickly became aware that if the staff were to be involved in the process the time taken would exceed that which was timetabled. In the end some of the procedures had to be written in draft form by the consultant alone, which was not ideal as the users would not recognise the work as their own and could not be expected to take ownership of it.

5.5 Comments on the ToR

The ToR were very challenging, but this was understandable. It was not, for example, possible for the writer of the ToR to know the situation with regard to training, which was patchy and had not been updated or re-inforced from the time of delivery to the present day. Nor would they have known the length of time it would take to prepare training materials – 3 days was simply insufficient once the number of trainees and the type and depth of training became evident. Typically a teacher in the UK would expect to spend twice as long on preparation as they would on delivery and whilst time and cost would not necessarily allow this (one week's training was to be provided three times) a longer period was needed.

5.6 Achievements of the mission

The mission achieved significant development within the CA given the type and size of challenge that it faced. By the end, the staff were keen, motivated for further actions and competitive in seeking advancement through in-depth training. As an initial approach to competence building this mission worked well. 39 environmental health officers (CA) and MFMR staff (fishery officers and fishery observers) underwent training that brought them all to a common base of knowledge.

They were left with a series of procedures and checklists to work on before another mission would take their knowledge and practice to a deeper understanding.

The conditions of working in Freetown hindered prompt and effective working practices and this should be taken into account by future missions. These included restrictions on the availability of electric power; the CA relied on its generator which in turn depended upon the purchase of fuel on a daily basis. Power was frequently only supplied by mid-morning, meaning that there was no facility for printing or PowerPoint presentations should they be planned into the day's programme.

Similarly, paper and toner were only available in limited quantities and the fuel for vehicles was too expensive for most staff and impinged on their ability to carry out inspections and conduct field visits during the practical parts of the training; the mission counterpart for example was the recipient of an old vehicle from a previous mission but had to pay for all fuel and maintenance himself. To a small extent the programme was rich in terms of capital but poor in terms of income.

Not all was negative. Whilst capital equipment and consumables were at a premium the staff were ready and willing to participate in training; this was the sustainable product of the mission. A lot could be, and was, achieved through building at no financial cost on the native intelligence, experience and skills of the participants, who often worked under demoralising circumstances and whose fortitude should be applauded.

Overall the ToR were accurate in their needs assessment but too ambitious in their content. However, as stated above, this could not have been known without the opportunity for a close scrutiny of the conditions on the ground. The CA was left in a better condition than prior to the mission owing to the recognition of the need to align Sierra Leonean law with that of its target market, recognition of the need to make changes to the organisation so as to reduce the opportunity for coercion of the staff, the preparation by the staff of their own procedures and checklists and a common grounding in HACCP, risk analysis, inspection protocols and practice, fish quality and spoilage and the need for further in-depth training. Recommendations for each of these form part of the next section.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Legislation

The Sierra Leone FPR for 2007 were cumbersome and inaccurate (Section 4.2.1). Furthermore, they required development to encompass bivalve molluscs and other relevant pieces of supporting legislation.

It is recommended that the FAO initiative to rewrite the regulations along with the Fisheries Act 1994 be pursued and if this is not possible, that the SFP project provide its own expert to create EU-equivalent legislation.

It is further recommended that all GMP/GHP elements of Sierra Leonean regulations be removed and instead used as the basis for national guidelines. There are plenty of examples on the internet that could easily be downloaded and used as a framework.

6.2 Organisational Improvements and Anti-Corruption Measures

The staff complement of the CA was very large but also had a wide remit to inspect all food products and premises, not only those of fish business operators. As fish inspection has very specific requirements it would make sense to dedicate a number of staff to the purpose of inspecting fishing vessels, fish establishments and fishery products.

It is recommended that a core of 10 specialist fish inspectors to cover the whole country be trained in auditing, HACCP, risk analysis, evaluation of sanitary conditions and EU legislation.

It is also recommended that at least one member of CA staff be trained in document control in order that a consistent and reliable system of controls be put in place and all procedures and other documents thus correctly maintained.

The CA lacked any direct internet connection, without which it was almost impossible for the department to keep up-to-date with changes in the law of its target markets. (See Section 4.2.1)

It is therefore recommended that internet access be provided to at least the CA HQ and that a programme of internet installation be investigated for the remainder of the out-posts. This would require a visit from an internet or telecommunications specialist.

With regard to anti-corruption measures, there were several areas that could be viewed as weak. In particular the position of the Fishery Observers appeared incongruous. They should not be asked to carry out 'Quality Control' functions (see MoU August 2007).; rather, this type of inspection should be left with the CA to do at a time when the vessel comes into harbour for transhipment.

It is recommended that two inspectors be present to witness transhipment activities and that both sign the certificate on satisfactory completion of the process.

There appeared to be a laissez-faire attitude from some of the fishing vessel operators towards the position of the CA, ignoring the need for HCs, keeping pets, and transshipping outside of the harbour. Section 4.2.4 refers.

With respect to the previous paragraph a final recommendation is that the CA write a strongly worded letter to the fish business operators demanding that all vessels obtain a Hygiene Certificate before being granted a fishing licence and that the cost of the inspection be paid by the vessel operator. The letter should also reinforce the CA's position on matters such as dogs and cats on board fishing vessels, i.e. that they are not allowed. The letter should also include mention that the vessels may only tranship in Freetown Harbour and that this period will be used for carrying out hygiene inspection and microbiological sampling, that may take 5 days to return results.

6.3 Procedures Manual

A basic structure was largely completed but further procedures needed to be written in order to cover other aspects of the official inspection process. Commencing these would be a very useful

task for CA staff to undertake immediately in order to allow time to practise them and make amendments where necessary.

It is recommended that the CA produce draft procedures as listed in Section 4.2.3.

There was room for changes to practices that would reduce the opportunities for corruption of staff by private enterprise (Section 4.2.2) and to improve effectiveness of the inspection process. In particular, practices on board fishing vessels were very difficult to control and there was effectively little link between the Observers and the MFMR.

It is recommended that the position of Observers in terms of their sanitary evaluation duties be discontinued.

6.4 Training

The training provided by the mission was well received by the groups. There was a clear need to take the training to the next skill level and to develop a group of individuals who could inspect, audit, evaluate and train. (Refer to Section 4.2.5).

It is recommended that the CA nominate 10 staff for further training who fit the criteria: who are adept at learning, who have jobs located near fish landing sites and establishments, who are able to board vessels, who have good knowledge of the fishing industry, and who have good knowledge of food safety.

7 LIST OF ANNEXES

Annex 1: Terms of Reference`

Annex 2: Programme and People Met

Annex 3: Reports produced and Training Materials Used (as appropriate)

Annex 4: Using the 12 Steps in HACCP

Annex 5: Classification of conformity and non-conformity



Annex 6: Information about Training Activities

Annex 7: Evaluation of Training Activities

Annex 8: Proposal of Terms of Reference

ANNEXES

ANNEX 1: TERMS OF REFERENCE

	SFP ACP/OCT Programme 8ACPTPS137 
Assignment name and number	CA001 SLE: Harmonisation of legislation and procedures related to the inspection and certification of fishery products for export – Sierra Leone
Coordinator	Garry Preston, Coordinator, Module 1
Technical Supervisor	Oscar do Porto – Expert on sanitary conditions of Fishery products – SFP
Background to assignment	<p>The Republic of Sierra Leone is the lowest-ranked country on the UNDP Human Development Index. Development of the country has been severely set back by the civil war which ran from 1991 to 2000. The country is now slowly emerging from the effects of the war, and developing both economically and socially.</p> <p>The fisheries sector is seen as a key potential contributor to the recovery process. Sierra Leone’s marine and freshwater fisheries include both industrial and artisanal components, and produced about 148,000 tonnes in 2006. Fishery product exports in that year were valued at about USD 11 million (FAO fishery statistics). Fisheries contributed 37.8% of agricultural Gross Domestic Product (GDP), and 9.4% of total GDP (FAO fishery country profile).</p> <p>Sierra Leone is not currently authorised to export fishery products to the European Union (EU). The Strengthening Fishery Products (SFP) programme has been helping the country achieve harmonisation with EU sanitary regulations and requirements for importing fish and fishery products. A number of interventions were made through the SFP Anglophone West Africa (AWA) regional project, which included Sierra Leone, and which ended in 2007. The AWA Project was affected by the impacts of the civil war, which devastated government structures in the country, but nevertheless realised a number of achievements, including:</p> <ul style="list-style-type: none"> - Legislation partially updated (but not finalised); - CA personnel and Quality Managers trained; - Environmental Monitoring Plan partly prepared; - Reference laboratories identified and needs towards accreditation assessed; - ‘Harmonisation Dossier’ in preparation. <p>Further capacity rebuilding still needs to be undertaken in Sierra Leone if the required level of guarantees needed for exporters of fish and fishery to access the European market is to be attained.</p> <p>In 2008 the Government of Sierra Leone requested further assistance from the SFP in the strengthening of the Competent Authority (CA), which is the Food Unit of the Environmental Health Department, and its inspection services acting under the Ministry of Health and Sanitation (MHS). The Government has requested technical assistance and training as well as equipment for the new office block housing the Food Unit. Equipment is being provided under a procurement process being run under SFP Module 1. Interventions under other Modules will support laboratory services, industry, and the artisanal fishery.</p> <p>The general objective of the present mission is to identify and initiate a series of steps needed to improve the sanitary conditions of exported fishery products, with the ultimate aim of achieving harmonisation with EU sanitary requirements. The present mission is likely to be the first in a series of advisory, technical assistance and training inputs to Sierra Leone by SFP Module 1.</p>

Issues to be addressed	<p>The following broad issues are those currently identified as the major impediments affecting Sierra Leone's prospects of EU accreditation:</p> <ul style="list-style-type: none"> a) inadequate or non-harmonised legislation and sanitary rules governing hygiene and sanitary conditions of fishery products intended for export; b) lack of an appropriate organisational structure for the CA; c) absence of operational arrangements or procedures for the CA; d) shortage of appropriate skills and knowledge among fishery inspectors, observers and other relevant personnel. <p>The present mission will be the first step in a process intended to address these issues. The mission will also identify other factors that may act as an obstacle to Sierra Leone obtaining authorisation to export to the EU, and propose means of addressing them.</p>
Activities of the Consultant	<p>In partnership with the technicians of the CA and other relevant stakeholders, the consultant will undertake the following tasks:</p> <ul style="list-style-type: none"> a) verify the current status of the legislation and regulations relating to hygiene and sanitary conditions of fishery product exports, and propose necessary changes, taking into account the existing texts as well as the need for measures to ensure internal compliance and preclude corruption. Where feasible, update the legislation and sanitary rules to achieve compliance with EU requirements, and orientate the officers responsible for drafting legislation in the CA; b) based on an institutional analysis, review and make recommendations on the organisational structure of the CA and the operational arrangements under which it should work. Where feasible, support the practical implementation of the recommendations made; c) prepare a manual of procedures for the CA, covering (but not necessarily limited to) the following topics: <ul style="list-style-type: none"> 1. routine inspection of fishery products manufacturing; 2. approval of facilities, including establishments and vessels; 3. monitoring and inspection of port activities (transshipment and other); 4. monitoring and inspection of sanitary conditions for water, products and personnel; 5. monitoring and inspection of potential contaminants and presence of residues; 6. ensuring product traceability; 7. strategies to ensure internal compliance and avoid corruption; 8. certification of products for export. d) provide practical support to the CA in implementing the procedures established in the manual, and in establishing and maintaining an operational system and appropriate working practices to deal with the inspection process, approval of facilities and certification of fishery products. e) carry out basic training workshops and on-the-job training on seafood quality and hygiene assessment, evaluation of sanitary conditions in fish processing facilities, risk analysis and the application of Hazard Analysis Critical Control Point (HACCP) methodology, and other relevant topics as required by inspectors and fishery observers;

	<p>f) draft Terms of Reference (ToR) for complementary actions by the SFP Modules 1, 2, 3 and 4, including training programmes and activities for the inspection service officers and industry technicians, that will assist Sierra Leone to attain full compliance with EU rules.</p>
Expected outputs	<p>The main outputs expected from the present mission are:</p> <ul style="list-style-type: none"> • updates and improvements to the legal framework for approval of fish processing establishments and fishing vessels, routine inspection procedures and product certification; • recommendations on additional changes needed or processes to be followed with regard to the national legislation, including measures to promote transparency and preclude corruption; • an institutional analysis and framework for the Competent Authority, specifying the posts and function required; • documented methodology and a manual of procedures for the inspection, certification and approval of products, premises and vessels; • training materials produced and relevant, appropriate theoretical and practical training provided to CA staff; • further training needs and requirements for technical assistance by CA staff and other stakeholders in the sector identified and documented, and appropriate responses proposed. • draft ToR for any follow-up activities recommended for the SFP. <p>The expert is required to produce a report detailing his activities, the results of any training delivered, issues that need to be addressed, and recommendations for any follow-up actions to be undertaken by the Sierra Leone Government or the SFP.</p> <p>For any training delivered during the mission, the expert's report must contain:</p> <ul style="list-style-type: none"> • a detailed record of all participants in the training, including full name, gender, occupation or position, and contact details; • a summary of the participants' evaluation of the training delivered (standardised evaluation forms will be provided); • a copy of all training materials used by the expert during the mission. <p>All training records, evaluations and materials, as well as any draft ToR for proposed SFP interventions, should be included in the report as annexes.</p> <p>The report is to be produced using MS Word for word processing, as well as other MS Office software where necessary. The report must be made available in hard copy and electronic form, both in Word/MS Office as appropriate, and in PDF format, with all elements combined in a single file.</p> <p>More information on the report format is contained in the next section.</p>
Report format	<p>The Consultant will be provided with a standard document template in MS Word which must be used as the basis for the mission report. The report will be prepared <u>in English</u>, according to the following structure:</p> <ul style="list-style-type: none"> - Title pages in model format as per other Programme Reports - Table of contents, to three levels, formal format - List of annexes - Tables of tables, figures and pictures all formal format - Abbreviations and acronyms

	<ul style="list-style-type: none"> - A 'Layman's Summary' of 4-5 lines, as per EC visibility requirements - Executive Summary (maximum 2 pages), in English and French - Introduction - Main body of report divided into different sections as appropriate, normally Context, Methodology, Performance in relation to ToR, and Discussion (up to 20 pages) - Conclusions and recommendations (each recommendation must be preceded by a conclusion, that refers to a discussion in the main body of the report) - Annex 1 Terms of Reference - Annex 2 Schedule and people met (with contacts) - Any other annex(es) as appropriate <p>Format as per PMU indications.</p>																														
Report to be reviewed by	Carlos Palin, Programme Manager																														
Duration/ indicative schedule of work activities	<p>The following schedule of inputs is indicative only, and subject to amendment by the consultant in response to operational considerations:</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Working days</th> </tr> </thead> <tbody> <tr> <td>Briefing at PMU in Brussels</td> <td>1</td> </tr> <tr> <td>Travel to Sierra Leone</td> <td>1</td> </tr> <tr> <td>Meeting with National Authorities & EC Delegation</td> <td>1</td> </tr> <tr> <td>Familiarisation, situation assessment and work planning</td> <td>3</td> </tr> <tr> <td>Review of legislation, documenting recommended changes and, where feasible, drafting of proposed amendments</td> <td>6</td> </tr> <tr> <td>Drafting of manual of procedures for the CA</td> <td>6</td> </tr> <tr> <td>Preparation of training materials</td> <td>3</td> </tr> <tr> <td>Training to inspectors, observers and industry technicians</td> <td>14</td> </tr> <tr> <td>Preparation of recommendations and Terms of Reference for follow-up actions</td> <td>4</td> </tr> <tr> <td>Debriefing to Authorities & Delegation in Sierra Leone</td> <td>1</td> </tr> <tr> <td>Travel to Europe</td> <td>1</td> </tr> <tr> <td>Debriefing of PMU in Brussels</td> <td>1</td> </tr> <tr> <td>Writing of report</td> <td>3</td> </tr> <tr> <td>Total</td> <td>45</td> </tr> </tbody> </table> <p>Total working days will equal 45 calendar days.</p>	Activity	Working days	Briefing at PMU in Brussels	1	Travel to Sierra Leone	1	Meeting with National Authorities & EC Delegation	1	Familiarisation, situation assessment and work planning	3	Review of legislation, documenting recommended changes and, where feasible, drafting of proposed amendments	6	Drafting of manual of procedures for the CA	6	Preparation of training materials	3	Training to inspectors, observers and industry technicians	14	Preparation of recommendations and Terms of Reference for follow-up actions	4	Debriefing to Authorities & Delegation in Sierra Leone	1	Travel to Europe	1	Debriefing of PMU in Brussels	1	Writing of report	3	Total	45
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Experience and qualification	<p>Expert of category II (at least 10 years of experience)</p> <p>Qualifications and skills:</p> <ul style="list-style-type: none"> - A University degree in veterinary, food technology or related sciences - Knowledge of English is essential. - The applicant must be of EU or ACP member state nationality. <p>General professional experience:</p>																														

	<ul style="list-style-type: none"> - Comprehensive knowledge of EU regulations relevant to the control of fish and fishery product sanitary status. - Demonstrated long-term background in fish and fishery product surveillance. <p>Specific professional experience:</p> <ul style="list-style-type: none"> - Long term background in the application of EU legislation and procedures for inspection and certification in third countries; the drafting of procedural manuals for inspection and certification, and the design and setting up of self-control systems, based on HACCP methodology, by the food industry as well as their audit by official inspection bodies.
Locations and travel	<p>Based in Wellington, Somerset, United Kingdom:</p> <ul style="list-style-type: none"> - 1 journey Wellington, UK – Freetown, Sierra Leone; - 2 journeys Wellington, UK – Brussels, Belgium; - up to 40 nights per diem in Sierra Leone; - up to 2 nights per diem in Brussels - up to 1 night per diem in London (depending on final travel arrangements for debriefing).

TERMS OF REFERENCE FOR EVENTS AND TRAINING ACTIVITIES

Strengthening Fishery Products Health Conditions in ACP/OCT Countries (SFP)

FED/REG/70021/000

Account Nos.: 8.ACP.TPS.137 – Service contract 2008/187-239

Commitment No. 20 – Module 1: Strengthening National Health Control Capacity

CARDNO AGRISYSTEMS CONSORTIUM

Event Ref: CA041SLE – Training CA Inspectors in use of Manual of Procedures

Event Coordinator	Richard Chivers
Technical Verifier	Oscar do Porto
Background and justification	The EU Regulation 882/2004 requires that official controls are undertaken in accordance with a manual of procedures. The SL CA has, under guidance prepared a manual of procedures. This training is to orient them to the new working methods. The training will take place as an in-country activity within the framework of mission CA001 SLE: <i>Technical Assistance to the Competent Authority in Sierra Leone to harmonise the legislation and procedures related to the inspection and certification of fishery products exports.</i>
Specific objective	The aim for this week is to develop uniform inspection protocols (administrative elements, inspection skills and reporting), prepare documented procedures in accordance with the ToR e.g. approval and withdrawal of sanitary certification of establishments and vessels and hygiene certification of products.
Results expected or learning outcomes	Participants will: <ol style="list-style-type: none"> 1. Contribute towards the description of the procedures. 2. Take part in an inspection of an establishment or vessel or landing site. 3. Be introduced to inspection of a hazard analysis system and understand the process of risk assessment. 4. Understand the issues with quality and how to judge it. 5. Understand the issues with safety and how to assess it.
Methods to be used	Workshop; seminar; practical interaction in factories and on vessels. More details are shown in the attached programme.
Beneficiaries or participants (Name, post, base)	Approximately 40 inspectors and observers of the Ministry of Health (CA) and the Ministry of Fisheries and Marine Resources have been selected taking into account their existing skills and the knowledge they need to carry out their jobs. They are mainly MFMR fisheries inspectors and observers, and MOH Food Inspectors. Four industry participants will also attend.
Location of the event	Freetown, Sierra Leone
Start time and date/ End time and date	Fourteen days in three sessions: Mon 22 June – Fri 26 June 2009, Mon 29 June – Fri 3 July 2009 and Mon 6 July – Fri 10 July 2009.
Moderators and other staff required (mission references if appropriate)	Sierra Leone CA and Ministry of Fisheries are providing the services of Mr. G. Bundu and Mr. H. A. Robbie respectively as co-moderators, as part of their counterpart contribution to the training.
Working languages	English
Expected date of report	End August 2009 (to be included in mission report of CA001SLE)

ANNEX 2: PROGRAMME AND PEOPLE MET

Date	Location	Name and Title	Remarks
2/6/9	Brussels	Mr Ahmed T Kaba First Secretary, Embassy of Sierra Leone, Brussels Tel: +32-47-4410522 Mr Alhaji Mohamed Fouad Sheriff Director of Fisheries SL Mr Oscar do Porto PMU Mr G Preston Module 1 Co-ordinator	PMU Briefing
4/6/9	Freetown	Mr H Robbie, Principal Fisheries Officer, Ministry of Fisheries and Marine Resources Tel: +232-76-617042 Email: hotangaa@yahoo.com Mr Gibrille T. Bundu, Head of Competent Authority, Food Unit, Environmental Health Division, Ministry of Health Tel: +232-76-243920	Introductory meeting with counterparts
4/6/9	Freetown	Colin Crutchly Deputy Managing Director Sierra Fishing Company	Introduction to mission with Richard Chivers and private sector
5/6/9	Freetown	Dr Heiko Seilert Project Manager, EU Technical Assistance Team, Institutional Support for Fisheries Management in Sierra Leone Tel: +232-76-547250 Email: heiko.seilert@gopa.de Dr Seissay (part) Mr Robbie Mr Bundu	Discussion of stock assessment work
8/6/9		Mr Thomas M Amara, Chief Health Lieutenant, Environmental Health Division, Ministry of Health and Sanitation	Introduction to the mission between Chief Env Health Officer and Richard Chivers

Date	Location	Name and Title	Remarks
		<p>Mr Gibrille T. Bundu, Head of Competent Authority, Food Unit, Environmental Health Division, Ministry of Health (Food Unit)</p> <p>Mr H Robbie, Principal Fisheries Officer, Ministry of Fisheries and Marine Resources</p> <p>Mr Alusine S Lovell, Food Inspector, Food Unit</p> <p>Manso Kargbo, Food Inspector, Food Unit</p>	
9/6/9	Freetown	<p>Mr Ritchie Jones, Project Officer (Rural Development Section, Delegation of the European Union</p> <p>Tel: +232-76-727955 Email: ritchie-peter.jones@ec.europa.eu</p> <p>Mr H A Robbie Mr G Bundu</p>	Mission introduction
15/6/9	Freetown	<p>Mr Ibrahim Soribas Kanu Director, National Authorising Office</p> <p>Tel: +232-76-805360 Email: ribakan@yahoo.com</p>	Mission introduction
16/6/9	Freetown	<p>Hon. Haja Afsatu O.E. Kabba Minister of Fisheries and Marine Resources</p> <p>Tel: +232-76-620495 Email: afsatukabba1@gmail.com</p> <p>Mr Paul M. Sandi Permanent Secretary, Ministry of Fisheries and Marine Resources</p> <p>Tel: +232-76-613504 Email: pmsani@yahoo.com</p>	Mission introduction
23/6/9	Freetown	<p>Bassem Mohamed, Managing Director, Sierra Fishing Company Wael Almahmoud, General Director Sierra Fishing Company</p>	Mission introduction

Date	Location	Name and Title	Remarks
3/7/9	Freetown	Beatrice Chaytor, Barrister at law Programme Officer The Elenchus Institute 7 Signal Hill Rd Freetown SL E: b.chaytor@ileap-jeicp.org	Discuss possible future movements with regard to SL Fishery Products Regulations
10/7/9	Freetown	Debrief: Haja Afsatu O E Kabba Hon MoFMR Mr Alhaji Mohamed Fouad Sheriff Director of Fisheries SL MoFMR Mr Ritchie P Jones Project Officer, EU Delegation Mr Gibrille T. Bundu, Head of Competent Authority, MoHS Mr H Robbie, Principal Fisheries Officer, MoFMR Mr. Kevin Gallagher, FAO Mr. Srijit representative from Sierra Fishing Co	Summary of findings, conclusions and recommendations for further activities
11/7/9	Freetown	Mr. Kevin Gallagher, FAO 15, Sir Samuel Lewis Rd Aberdeen PO Box 71 Freetown SL T: (232-22) 235828 M: 232 76 541445 E: kevin.gallagher@fao.org	Final discussion of situation in SL

ANNEX 3: REPORTS PRODUCED AND TRAINING MATERIALS USED (AS APPROPRIATE)

No reports produced

Training Materials in next pages

Training provided for Sierra Leone Competent Authority: Creating Documented Procedures

Aims

1. To enable the CA to create its own procedures
2. That staff should recognise the purpose and value of documented procedures
3. That staff should know when a procedure is needed

What is a procedure?

It is a document that describes the essential requirements of an activity.

This will include:

1. Administration of the document e.g. format (distribution, issue number, amendments)
2. Purpose
3. Scope
4. References (related documents)
5. Definitions
6. Procedure
7. Verification
8. Appendices e.g. names of useful related documents

Why are procedures necessary?

1. Consistency of understanding.
2. Consistency of performance.
3. Documented evidence for an auditor to demonstrate understanding, consistency and commitment to an activity.
4. Legal equivalence to EU.

Worked example

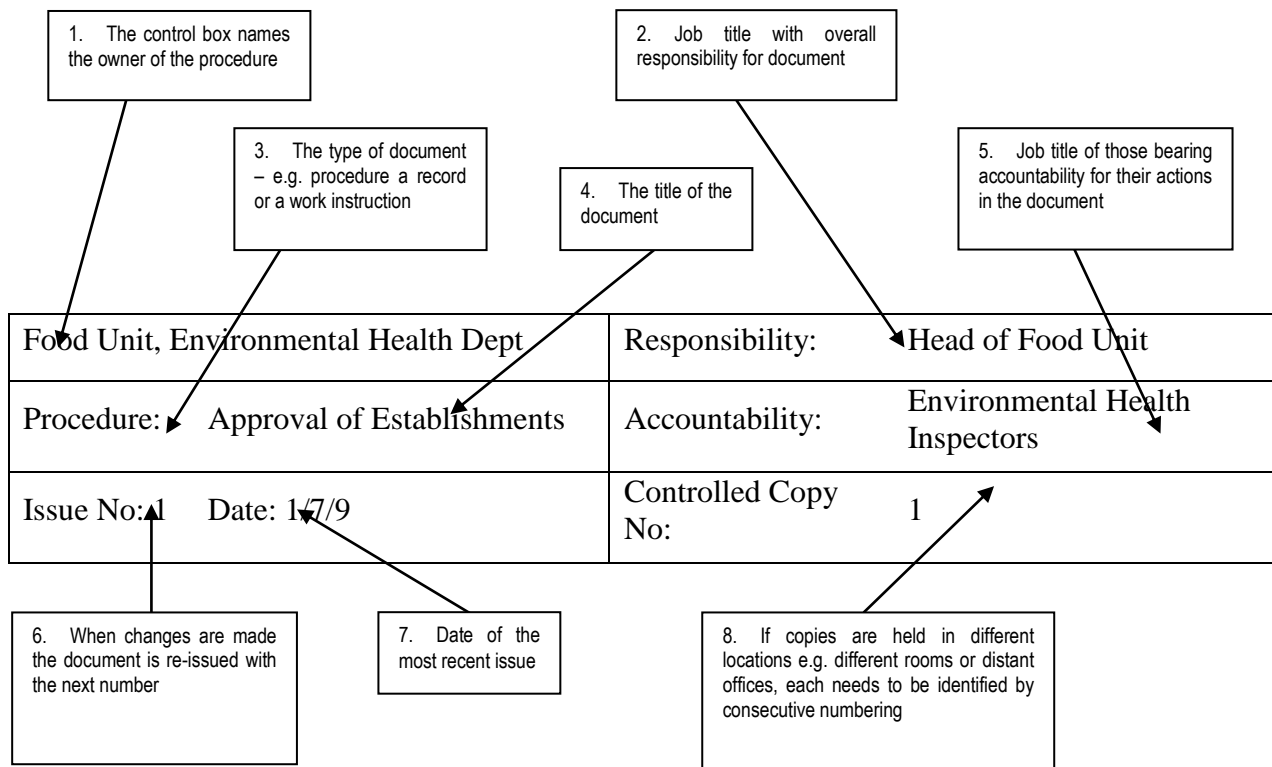
First take a look at the elements that comprise a procedure.

Administration: The Control Box

At the top of each page you will see a header that holds a small table. This is the Control Box.

The control box gives information about the procedure. Here is an example:

1. The control box names the department, company or other body that owns it



- The control box informs the reader who bears responsibility for the activities within the procedure and also who is responsible for altering the procedure when it requires change.
- The document does not have to be a procedure; it may be another form of controlled document such as a diagram, a record, a work instruction. Its type is described in the box.
- The procedure is given a name from which it can easily be recognised. In this case it is the Approval of Establishments procedure. Some companies prefer to use a code for the procedure e.g. AE (Approval of Establishments) or AV (Approval of Vessels) in this example but its full name as it is easier to recognise in a list and certainly easier for a visiting auditor to find.
- The control box denotes who has been assigned accountability for their activities. This is different from having overall responsibility for the procedure
- Each time a document is changed it is given a new issue number
- Each issue is dated when released
- Every copy of a controlled document is given a number to identify who holds it. For example, copy number one will probably be held by the head office, others will be sent to the outlying sub-offices. A list is kept of the location of each controlled document.

Each page should be numbered with the page number itself and the total number of pages in the document, as in the footer to these pages.

Purpose

The purpose of the document should be described in one or two short sentences. In this example,

Scope

The start and end point of the procedure should be made clear in one or two sentences

References

Any other documents that have a direct bearing on the procedure are listed here e.g. other procedures, records.

Definitions

E.g. define 'Approval'

Procedure

The actual activity that the procedure is about is described here in broad terms. In the example used, Approval of Establishments it is not necessary to describe the whole process of filling in the application documents, only that they will be completed within a given timescale, nor is it necessary to describe the inspection process, should that be required it can be done through a detailed work instruction, but reference to the official checklist (itself a controlled document) should suffice.

Documentation




Details of such documents as the records for this procedure.


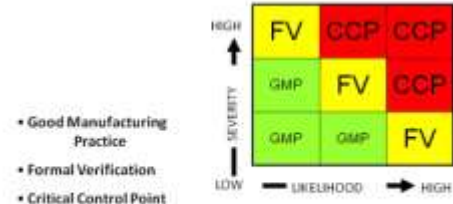
You may wish to add where the records are held and who maintains them e.g. the Administration Officer

Appendices

Any other useful documents that do not come under the standard headings above. There may be none, as is often the case; this is a catch-all section.

Risk Assessment Handouts

<p>1</p>	<p style="text-align: center;">Risk Analysis</p> <p>To demonstrate that you have knowledge & understanding of the hazards associated with product/process and the means by which they are controlled.</p> <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>	<p>2</p>	<p style="text-align: center;">General Principles of Risk Assessment</p> <ol style="list-style-type: none"> 1. Based on Scientific Evidence. 2. Functional Separation between Risk Assessment & Risk Management. 3. Use of a Structured Approach. 4. State Purpose & Format of the Risk Estimate will take. 5. Transparency. 6. Detail Uncertainty in Risk Estimate. 7. Use of Best Available Information & Expertise. 8. Include Fate of Hazards in Foods & Method by which Harm is Caused in Consumer. 9. Re-evaluation of Risk Estimates <p style="text-align: center;"><small>The Codex Committee on Food Hygiene (1998) "Principles and Guidelines For The Application Of Microbial Risk Assessment"</small></p> <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>
<p>3</p>	<p style="text-align: center;">Stages in Risk Assessment</p> <ol style="list-style-type: none"> 1. Statement of Purpose 2. Hazard Identification 3. Exposure Evaluation 4. Hazard Characterisation 5. Risk Characterisation 6. Documentation (Formal Report) <p style="text-align: center;"><small>The Codex Committee on Food Hygiene (1998) "Principles and Guidelines For The Application Of Microbial Risk Assessment"</small></p> <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>	<p>4</p>	<p style="text-align: center;">Hazard Identification</p> <p>Focus only on those hazards that are relevant to the</p> <ul style="list-style-type: none"> • Product • Process • Location <p style="text-align: center;">Decisions can be helped by using Decision Tree</p> <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>
<p>5</p>	<p style="text-align: center;">Hazard Characterisation</p> <p>FOR EACH HAZARD IDENTIFY & RECORD</p> <ul style="list-style-type: none"> <input type="checkbox"/> The Hazard & It's Nature <input type="checkbox"/> It's Source(s) <input type="checkbox"/> The Potential And Method To Cause Harm <input type="checkbox"/> Exposure limits (Dose response) <input type="checkbox"/> Methods Of Control /Elimination <ul style="list-style-type: none"> • In Place • Required <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>	<p>6</p>	<p style="text-align: center;">Hazard Characterisation</p> <p style="text-align: center;">POTENTIAL <u>SEVERITY</u> of HAZARD</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>MODERATE</p> </div> <div style="text-align: center;">  <p>SEVERE</p> </div> <div style="text-align: center;">  <p>LIFE THREATENING</p> </div> </div> <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>
<p>7</p>	<p style="text-align: center;">Hazard Characterisation</p> <p style="text-align: center;">Other Factors</p> <ul style="list-style-type: none"> • Standards of the customer must be met. • The Economic cost of the hazard being present even if it is unlikely to cause significant harm need to be considered. <ul style="list-style-type: none"> • Loss of Markets • Loss of reputation <p style="text-align: center;">This may increase the "Severity" of the Hazard</p> <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>	<p>8</p>	<p style="text-align: center;">Exposure Assessment</p> <p style="text-align: center;">The evaluation of how much of the hazard will be exposed (i.e. ingested).</p> <p style="text-align: center;">It may be quantitative or qualitative</p> <p style="text-align: center;"><small>© Harmonisation E.U. 2016</small></p>

<p>9</p>	<p style="text-align: center;">Exposure Assessment LIKELIHOOD / PROBABILITY OF HAZARD OCCURRING</p> 	<p>10</p>	<p style="text-align: center;">Exposure Assessment Frequency of Contamination and level in food over time</p> <ul style="list-style-type: none"> • Growth and Survival Characteristics of the Pathogen • Microbiological Ecology of the Food • Initial Contamination of the Raw Material • Regional Differences and Production 'Seasonality' • Hygiene and Process Controls • Methods of Processing, Packaging, Distribution and Storage • Preparation Steps (cooking and holding)
<p>11</p>	<p style="text-align: center;">Exposure Assessment Frequency of Contamination and level in food over time</p> <ul style="list-style-type: none"> • Growth and Survival Characteristics of the Pathogen • Microbiological Ecology of the Food • Initial Contamination of the Raw Material • Regional Differences and Production 'Seasonality' • Hygiene and Process Controls • Methods of Processing, Packaging, Distribution and Storage • Preparation Steps (cooking and holding) 	<p>12</p>	<p style="text-align: center;">Exposure Assessment Method of Production</p> <ul style="list-style-type: none"> • Role of the Food Handler as a contamination source • Amount of Hand Contact with the Product • Potential Impact of Environmental Relationships (Time and Temperature)
<p>13</p>	<p style="text-align: center;">What is Risk?</p> <p>Risk is:</p> <p style="text-align: center;">the likelihood of a hazard occurring and it's severity</p>	<p>14</p>	<p style="text-align: center;">DETERMINING RISK</p> <p style="text-align: center;">RISK ASSESSMENT DETERMINING THE LEVEL OF CONTROL REQUIRED FOR A SPECIFIC HAZARD</p> 

Fish Spoilage – Training Handouts

<p>1</p>	<p style="text-align: center;">Fish Spoilage 1</p> <p>Principles of spoilage: Causative agents: Bacteria Enzymes Found in: Gut Gills On skin Spoilage rates tropical fish 0°C 20 days good condition. Reject at 25 days 5°C 10 days good condition. Reject at 12 days 27°C 1 day good condition. Reject on day 3</p>	<p>2</p>	<p style="text-align: center;">Fish Spoilage 2</p> <p>Storage Conditions</p> <p>Ideal conditions: -1 to 2°C Lower means slow freezing</p> <p>Ice : Fish ratio 1:1</p> <p>Holding fish on board ship Flaked ice Chilled seawater Slurry ice</p>																
<p>3</p>	<p style="text-align: center;">Fish Spoilage 3</p> <p>Frozen Fish</p> <p>Typical Shelf Lives at -20°C</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">White fish</td> <td>4 months</td> </tr> <tr> <td>Oil-rich</td> <td>3 months</td> </tr> <tr> <td>Shellfish</td> <td>3 months</td> </tr> <tr> <td>Smoked fish</td> <td>3 months</td> </tr> </table>	White fish	4 months	Oil-rich	3 months	Shellfish	3 months	Smoked fish	3 months	<p>4</p>	<p style="text-align: center;">Fish Spoilage 4</p> <p>Frozen Fish - Changes in cold storage:</p> <p>Oil-rich fish: Oxidation rancidity of lipids Other problems: Freezerburn Coldstore flavour</p> <p>Fluctuating temperatures</p>								
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<p>5</p>	<p style="text-align: center;">Fish Spoilage 5</p> <p>Auditing</p> <p>Check history of fish Spoilage not obvious early in shelf-life Ensure fish was chilled on vessel</p> <p>Check for clear drainage holes in boxes</p>	<p>6</p>	<p style="text-align: center;">Judging Fish Quality 1</p> <p>Hedonic Scales</p> <p>8 Like extremely 7 Like very much 6 Like moderately 5 Like slightly 4 Dislike slightly 3 Dislike moderately 2 Dislike very much 1 Dislike extremely</p>																
<p>7</p>	<p style="text-align: center;">Judging Fish Quality 2</p> <p>Torry Scoring</p> <p>Designed 50 years ago. Industry slow to adapt</p> <p>Objective Describes specific changes</p>	<p>8</p>	<p style="text-align: center;">Judging Fish Quality 3</p> <p>Torry Scoring</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">SCORE</th> <th style="text-align: left;">EYES</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>Bulging, convex lens, black pupil, crystal clear cornea.</td> </tr> <tr> <td>9</td> <td>Convex lens, black pupil with slight loss of initial clarity.</td> </tr> <tr> <td>8</td> <td>Slight flattening or plane, loss of brilliance.</td> </tr> <tr> <td>7</td> <td></td> </tr> <tr> <td>6</td> <td>Slightly sunken, slightly grey pupil, slight opalescence of cornea.</td> </tr> <tr> <td>5</td> <td></td> </tr> <tr> <td>4</td> <td>Sunken, milky white pupil, opaque cornea.</td> </tr> </tbody> </table>	SCORE	EYES	10	Bulging, convex lens, black pupil, crystal clear cornea.	9	Convex lens, black pupil with slight loss of initial clarity.	8	Slight flattening or plane, loss of brilliance.	7		6	Slightly sunken, slightly grey pupil, slight opalescence of cornea.	5		4	Sunken, milky white pupil, opaque cornea.
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<p>15</p>	<p style="text-align: center;">HACCP</p> <p>Objective: to elucidate issues that concern inspectors</p> <p>Fish industry is generally microbiologically considered safe</p> <p>Areas of concern</p> <ul style="list-style-type: none"> Physical contamination Chemical contamination <p>High risk products</p> <ul style="list-style-type: none"> Ready to eat foods 	<p>16</p>	<p style="text-align: center;">Food Safety and Fish</p> <p>Scombrototoxin</p> <p>Histidine Histamine</p> <p>Legal Levels Histamine</p> <p>Mean value 100 ppm</p> <p>2 samples -100, -200 ppm</p> <p>0 samples -200 ppm</p> <p>Critical Appraisal: is histamine the problem</p>																																				

<p>17</p>	<p style="text-align: center;">Food Safety and Fish</p> <p>Shellfish Poisoning Bacterial and Viral Contamination Shellfish Toxins ASP DSP NSP PSP</p> <p style="text-align: center;"><small>Copyright © 2004 Seafood Audit International</small></p>	<p>18</p>	<p style="text-align: center;">Fish Smoking 1</p> <p>General Principles Fillet preparation Salting or Brining Drying Smoking Chilling</p>
<p>19</p>	<p style="text-align: center;">Fish Smoking 2</p> <p>Problems and Defects Contamination of brine Salt content of brine Salt content of fish - 3.5% Smuts Pinkling</p>	<p>20</p>	<p style="text-align: center;">Thank you!</p> <p style="text-align: center;"><i>Seafood Audit International</i></p>

The Seven HACCP Principles and 12 Steps

There are seven principles and 12 steps to food safety through the Hazard Analysis Critical Control Points system. A company is expected to carry out all these procedures along with a risk assessment.

Principle 1: *Conduct a hazard analysis.*

- Plants determine the food safety hazards identify the preventive measures the plant can apply to control these hazards.

Principle 2: *Identify critical control points.*

- A critical control point (CCP) is a point, step, or procedure in a food process at which control can be applied and, as a result, a food safety hazard can be prevented, eliminated, or reduced to an acceptable level. A food safety hazard is any *biological, chemical, or physical* property that may cause a food to be unsafe for human consumption.

Principle 3: *Establish critical limits for each critical control point.*

- A *critical limit* is the maximum or minimum value to which a physical, biological, or chemical hazard must be controlled at a critical control point to prevent, eliminate, or reduce to an acceptable level.

Principle 4: *Establish critical control point monitoring requirements.*

- Monitoring activities are necessary to ensure that the process is under control at each critical control point. FSIS is requiring that each monitoring procedure and its frequency be listed in the HACCP plan.

Principle 5: *Establish corrective actions.*

- These are actions to be taken when monitoring indicates a deviation from an established critical limit. The final rule requires a plant's HACCP plan to identify the corrective actions to be taken if a critical limit is not met. Corrective actions are intended to ensure that no product injurious to health or otherwise adulterated as a result of the deviation enters commerce.

Principle 6: *Establish record keeping procedures.*

- The HACCP regulation requires that all plants maintain certain documents, including its hazard analysis and written HACCP plan, and records documenting the monitoring of critical control points, critical limits, verification activities, and the handling of processing deviations.

Principle 7: *Establish procedures for verifying the HACCP system is working as intended.*

- *Validation* ensures that the plans do what they were designed to do; that is, they are successful in ensuring the production of safe product. Plants will be required to validate their own HACCP plans. FSIS will not approve HACCP plans in advance, but will review them for conformance with the final rule.
- *Verification* ensures the HACCP plan is adequate, that is, working as intended. Verification procedures may include such activities as review of HACCP plans, CCP records, critical limits and microbial sampling and analysis. FSIS is requiring that the HACCP plan include verification tasks to be performed by plant personnel. Verification tasks would also be performed by FSIS inspectors. Both FSIS and industry will undertake microbial testing as one of several verification activities. The occurrence of the identified food safety hazard.

<http://www.fsis.usda.gov/OA/background/keyhaccp.htm>

1. Assemble HACCP Team
 - Develop a team that has the appropriate product specific knowledge and expertise to develop an effective food safety plan.
2. Describe Product
 - Draw up a full description of the product including composition, physical/chemical structure, microcidal/static treatments, packaging, storage conditions, and distribution methods.
3. Identify the intended use
 - Usage should be based on expected intended use of the product by the end user.
4. Construct flow diagram
 - Create a diagram that covers all steps of the operation including steps preceding and following the specified operation.
5. On-site confirmation of flow diagram
 - Determine that the flow diagram is aligned with actual operations.
6. Conduct a hazard analysis
 - Identify any biological, chemical or physical hazards.
7. Determine Critical Control Points (CCPs).
 - CCPs are areas where previously identified hazards may be eliminated.
8. Establish Critical Limits
 - Develop processes that limit risk at CCPs.
9. Monitor CCPs
 - Develop process for ensuring critical limits are followed.
10. Establish preplanned corrective actions to be taken
11. Establish procedures for verification
12. Ensure proper documentation and records of HACCP process are maintained

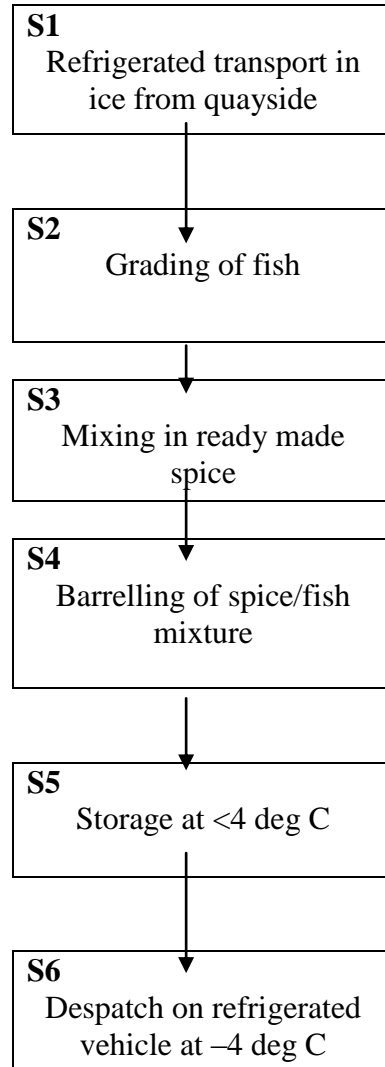
ANNEX 4: TRAINING EXERCISE - USING THE 12 STEPS IN HACCP

Trainees to:

1. Identify what is missing
2. What further information you need
3. Comment on the CCPs

HACCP: Pickled Sprats

Figure 1: Sprat Processing Flowchart



Microbial Hazard Analysis

Low Risk Environment

In the analysis, certain features of the business were taken into account.

1. The Sprat Company produces only a low risk product i.e. the sprat will undergo a natural curing process and will be further processed before consumption.
2. The sprat industry is very safe, having no recorded cases of intrinsic food poisoning associated with it in the UK
3. Fish on arrival at the factory is chilled and processed within 6 hours. If this is not possible, the product is frozen for other markets or disposed of. Throughout this time the fish is prepared in temperature controlled rooms or stored in a chiller under aerobic conditions.
4. The product will either be eaten raw but cured, or cooked prior to eating.

The analysis is therefore based on low risk criteria.

Pathogenic Micro-organisms

Microbiological hazards were considered in these terms.

1. The likelihood of the hazard occurring and its consequent effects.
2. The severity of the hazard e.g. life-threatening/mild; chronic/acute.
3. Numbers of people exposed to the hazards due to distribution of the product.
4. The age/vulnerability of those exposed to the hazard.
5. Survival and multiplication of microorganisms of concern.
6. Production and persistence of toxins.
7. A summary of the conditions leading to the above.

Pathogenic organisms considered:

Name	Relevant sources
<i>Clostridium botulinum</i>	Mud, marine environment
<i>Listeria monocytogenes</i>	Widespread: the environment in general
<i>Salmonella spp</i>	Raw fish, and shrimps

Consideration of CLOSTRIDIUM BOTULINUM

1. Likelihood of occurrence

Clostridium botulinum types E B and F are found in the sea and mud and may therefore be found in fish, especially those living in coastal waters or silty/sandy bottoms. It will grow in the gut of these fish but is controlled by the concentrations of salt used on the spice mixing/brining process. The fish are very small, thereby allowing the salt to penetrate the fish bodies rapidly, inhibiting the growth of *C. botulinum*. Furthermore, it is a poor competitor with other organisms, notably spoilage organisms that would render most foods inedible before *C. botulinum* became a significant danger.

2. Severity

C. botulinum is one of the most dangerous enterotoxigenic pathogens. It has a 30% mortality associated with ingestion of the toxin.

3. Vulnerability

All sections of the population are vulnerable to botulinum toxin.

4. Organism survival

Clostridium botulinum is an anaerobic, spore-forming, gas-producing bacterium. Types E, B and F cause food poisoning by the production of a potent toxin at temperatures as low as 3°C. Spores are very heat resistant, 121°C for 3 minutes is needed to ensure destruction.

Conditions for growth:

Limiting conditions for <i>C. botulinum</i> A and B growth					
	Temp (C)	pH	Aw	Salt (%)	Atmosphere
Opt	20-30	6.5-7.5	-	-	An*
Range	3-45	5-9	0.97 min	5 max	

*An Anaerobic

Almost any type of food that is not very acidic (>pH 4.6) can support growth and toxin production by *C. botulinum*.

5. Production and persistence of toxins

The toxin is heat liable and can be destroyed if heated at 80°C for 10 minutes or longer.

6. Summary

The opportunity for *C. botulinum* to become a danger is very remote, the products are aerobically packed, handled in chilled conditions (<10°C). Proteolytic strains of *C. botulinum* do not germinate from spores below 12°C and, whilst toxin formation has been observed at 3°C in non-proteolytic strains (B and F), it is usually the case that *C. botulinum* requires higher temperatures (>15°C) for significant growth and toxin formation. In addition these products must all be chilled to maintain their quality (spoilage would be very obvious from the smell) and the early introduction of salt in the water phase is sufficient to remove the risk posed.

C. botulinum is not considered to be a safety hazard in these products.

HACCP: Sprat Processing

Process Step	Hazards	Control Measures	CCP Question					Critical Limit	Monitoring procedures	Corrective Action	Records
			1	2	3	4	CCP				
S1 Transport	Physical contamination, grit, packaging, wood	Visual inspection at upon receipt of goods	Y	N	N		No				
S2 Grading of fish	Physical contamination, grit, metal from machinery	Visual inspection upon, weighing mixing and barrelling	Y	Y	Y	Y	No				
S3 Mixing in spice	Grit and metal fragments	Visual assessment by trained personnel	Y	Y			Yes	No extraneous physical contaminants to be present	Visual inspection by staff	Re-inspect, staff training	Foreign Body Records Corrective Actions Records
S4 Barrelling of spice/fish mixture	Possible bacterium from dirty barrels	Visual Assessment by Trained Personnel	Y	Y			Yes	Barrels to be clean before use	Visual inspection By staff	Re-inspect, staff training	Cleaning records Corrective Actions Records
S5 Chilled Storage	Presence of foreign bodies (e.g. grit) due to damage in chilled store area	Staff training	Y	Y			Yes	Absence of foreign bodies	Visual inspection	Remove any damaged product. Determine cause of damage. If superficial damage, repack, if intrusive reject	Stock records Corrective Actions Records
S6 Despatch	No hazard identified										
END											

ANNEX 5: Example of checklist updated from *Manual for the Execution of Sanitary Inspection of Fish*

F02: Assessment checklist for the hygiene and good manufacturing practices control

FORM FOR AUDIT OF FISH PROCESSING ESTABLISHMENTS ON SHORE	
PRE-CERTIFICATION ASSESSMENT/AUDIT OR FULL AUDIT CHECKLIST FOR THE EVALUATION OF FISH PROCESSING ESTABLISHMENTS - F 02	
Used for the approval, renovation of approval or follow-up verification of hygiene and operation practices (EC/178/2002, 852 and 853/2004)	
Name of the establishment:	Certification number:
Date of audit:	Name of Inspector

Sanitary and Hygiene Requirements					
Element to evaluate	Mi	Ma	Se	Cr	Score
<p>1. <u>Facilities and equipment Hygiene</u></p> <ul style="list-style-type: none"> - Are they kept in a satisfactory state of cleanliness? - Is vermin systematically exterminated? <ul style="list-style-type: none"> o Are rodenticides, insecticides, disinfectants and any other toxic substance stored in premises or cupboards, which can be locked? o Can these toxic products contaminate the fish products? - Are the working premises used only for fish products? - If not, was the company authorized? - Is potable water used for the designated purposes? - Are the detergents and the disinfecting agents approved? - Are the facilities and equipment cleaned and disinfected at least once per day? 					
<p>2. <u>Personnel hygiene</u></p> <ul style="list-style-type: none"> - Has every worker undergone a medical examination? - Is medical examination periodically carried out on workers handling fish? - Is any person that can contaminate the products excluded from handling them? - Do all the workers wear suitable and clean working clothes? - Do they wear a headgear, which covers completely the hair? - Do they wash and disinfect their hands each time before commencing work? - Are the wounds covered with waterproof bandages? - Does the staff respect the instructions of not smoking, spitting, eating and drinking in the working and storage premises? 					
<p>3. <u>Production and utilization of ice</u></p> <ul style="list-style-type: none"> - Is ice produced from potable water? - Is ice stored in containers designated for this purpose? - Are the ice containers clean and well maintained? 					
<p>4. <u>Containers for fresh fish</u></p> <ul style="list-style-type: none"> - Do they protect fish from contamination? - Do they preserve fish in a hygienic manner? - Do they allow for easy drainage of water? - Does filleting or cutting lead to contamination of fillets? 					

Sanitary and Hygiene Requirements					
Element to evaluate	Mi	Ma	Se	Cr	Score
<p>5. <u>Evacuation of waste</u></p> <ul style="list-style-type: none"> - Is waste evacuated at least once a day? - Are the waste containers and the waste storage premises cleaned and disinfected after each use? - Can the stored waste be a source of contamination for the establishment? 					
<p>6. <u>Fresh products</u></p> <ul style="list-style-type: none"> - Are products that are not immediately processed, iced or refrigerated? - Are iced products re-iced regularly? - Are pre-packed products iced or refrigerated? - Is gutting and heading done hygienically? - Are gutted or headed fish immediately washed with potable water? - Is filleting and cutting carried in a place different from the place where fish is gutted and headed? - Are there delays in processing fillets or steaks? - Are fillets and steaks rapidly refrigerated? - Are the viscera and other undesirable parts of the fish quickly separated from the product? 					

ANNEX 5: CLASSIFICATION OF CONFORMITY AND NON CONFORMITY

In the majority of the following forms, any deficiencies or non-conformities identified by the evaluation should be classified according to their seriousness. The scale used is based on four classifications, which correspond to the definitions of the following table. The abbreviations set out in the brackets on the forms serve as a guide to the inspectors.

Critical Deficiency (Cr): any condition or malpractice observed in the establishment which can lead to the fish becoming unsafe or unwholesome.

Serious deficiency (Se): any condition or malpractice observed in the establishment that can preclude proper implementation of hygienic practices or obtaining appropriate level of hygiene; and thus lead to the production of a contaminated or spoiled fish product, but with no safety implications.

Major deficiency (Ma): any condition or malpractice observed in the establishment, which precludes general hygiene and leads to the spoilage of the product.

Minor deficiency (Mi): any observed condition or malpractice, which does not conform to the sanitary requirements, but is neither major nor serious or critical.

At the end of the audit the overall results should be compiled based on the sum of deficiencies in each category. The following tables shows how the number and nature of the non-conformities in each category can be used to establish an overall rating for the level of risk.

Table 1: Rating of fish handling and processing establishments

Rating of the Establishment	Number of minor deficiencies	Number of major deficiencies	Number of serious deficiencies	Number of critical deficiencies
A	0 to 6	0 to 5	0	0
B	7 or more	6 to 10	1 to 2	0
C	NA	11 or more	3 to 4	0
D (not approved)	NA	NA	5 or more	1

*NA: Not applicable in this case.

ANNEX 6: INFORMATION ABOUT TRAINING ACTIVITIES

a) Title of training course or subject of training	Inspector training
b) Location (City, town, etc)	Freetown
c) Dates (start and finish)	Three weeks: 22.06.09 29.06.09 06.07.09
d) No of days of training delivered (for instance a 5-day course in which training occupied half of each day would be 2.5 days)	4.5 days per week (Friday afternoon prayers)
e) Total number of participants	39
f) Total number of participant-days (normally = d x e, unless there was partial attendance by some participants)	160.5
g) Total number of women participants	2
h) Total number of women participant-days (normally = g x e, unless there was partial attendance by some participants)	9

ANNEX 7: EVALUATION OF TRAINING ACTIVITIES**List of Trainees**

Name	Job Description
Gibrilla T. Bundu	Head Food Unit
Sahr. E. Abu	Public Health Supt
Sellu.K. Dallooli	EHO
David.V. Charlie	EHO
K.K. Dabo	Supervisor of Desk Officers
Thomas. K Kalijah	Dock Observer
Mohamed King	Dock Observer
Khalil O. Bargas	Dock Observer
John Tommy	Unit Head. Env. Health
Hotanga Arnold Robbie	Co-ordinator. CA. EU.
Martha Mani	Env. Health. CA.
Anita Caulkool	EHO
Alusine.S Lovell	EH Division
Samuel Kanu	Marine Officer
Alpha Bangura	Marine Officer
Peter S. Kanu	Marine observer
Osman Fofanah	EHO
Allieu B. H. Kargbo	EHO
Sorie M. Dorubuya	EHO
Abbas T Korma	EHO
Famakani Martyn	EHO
Joseph Mamie	Fisheries Officer
Sheku Sei	Fisheries Officer
Thomas Amara	EHO
Manso Kafko	EHO
Sherriff Kommorra	Fisheries Observer
Bartrand T Fillie	Quality Inspector Sierra Fishing Co
Mohamed Tarawally	Quality Services Co-ordinator
Lahai G. D. Kallon	Fisheries observer
Michael A. Kamara	Fisheries Observer
Foday M. Daboh	Fisheries Observer
Alie M. Kamara	CA EHO MOHS
Simon F. Dumbuyo	EHO CA
Saffa Saibu	EHO
Alhassa Kamara	Alpha Fishing Co.

Sierra Leone Competent Authority Training

Inspection of Fishery Products, Establishments and Vessels

Richard Chivers

richardkchivers@gmail.com

Programme

Monday

Introductions and this week's aims

Procedures and procedure writing

Introduction to inspection skills

Tuesday

Routine Inspections protocol

Development of inspection skills

Inspecting HACCP

Wednesday

Site Inspection

Review findings

Thursday

Principles of risk analysis

Fish quality assessment

Friday

Review weeks findings

12:00 End

Training was carried out in three groups of 12-14 persons over three weeks working Monday to Friday. The format was seminars for the most part, with trainee participation, PowerPoint presentations for support and one day in the field practical inspection experience.

Training was regarded well by the three groups with scores averaging out at 90%.



The consultant considered that future training would benefit from concentrating on a smaller group and more intense work on auditing, document control, evaluation of sanitary conditions, HACCP, risk analysis, aseptic sampling methods and EU legislation.

Training Evaluation

Strengthening Fishery Products Health Conditions in ACP States/ OCTs	
Module 1 - Strengthening National Health Control Capacity	
Training Event - Evaluation Feedback Form	
Page 1	
This form should be filled in by participants in each SFP training activity, and returned to the course coordinator.	
Please give your honest opinions. We will use the feedback tactfully and constructively to help improve the course for	
Course details (to be filled in by the trainer prior to distribution)	
Course title/ Subject	Official Controls Inspection Training Sierra Leone
Date	22.06.09 to 09.07.09
Trainer	Richard Chivers
Location	Freetown Sierra Leone
Participants comments	
What were your objectives for attending the course?	Understanding documented procedures and how to write them, introduction to fish spoilage, inspection protocols, introduction to HACCP basic sanitary evaluation
Were your objectives met?	Yes All <input type="checkbox"/> No <input type="checkbox"/>
If No, please state why not.	
Were there any subjects which you considered unnecessary?	Yes <input type="checkbox"/> No All
If YES, which?	
Were there other subjects you would have liked to see included?	Yes <input type="checkbox"/> No 28
If YES, which?	Microbiology (3), laboratory techniques (1), problems facing fishing industry (1), human pathogens in fish (1), observers'
Were there subjects you would have liked to spend more time on?	Yes <input type="checkbox"/> No 8
If YES, which?	HACCP (11), Quality Control (1), Fish Examination(3), practical inspection and use of equipment (2), establishments and
What did you enjoy most about the course?	Many different comemtns most biased towards enjoying learning HACCP and course as a whole.
What was the least enjoyable aspect?	Several different answers but mostly no parts not enjoyed and the desire for more practical aspects
How could the course and teaching be improved?	Longer training was the general opinion
Would you recommend the course to others?	All said yes
Whose decision was it that you attend this course?	All recommended by the Competent Authority

Strengthening Fishery Products Health Conditions in ACP States/ OCTs						
Module 1 - Strengthening National Health Control Capacity						
Training Event - Evaluation Feedback Form						
Page 2						
Course Objectives (to be filled in by the trainer prior to distribution)						
How well were the objectives met?	Very well	Mostly	Partly	Only a bit	Not at all	N/a
1 Understanding documented procedure	27	7	1			
2 Introduction to fish spoilage	23	10	2	1		
3 Inspection protocols	20	10	2	1		
4 Introduction to HACCP	20	12	1	1		
5 Inspection practice	22	14	1			
Additional comments on course objectives						
How would you rate the trainer/ presenter in terms of the following criteria?						
	Excellent	Good	Average	Poor	Very poor	N/a
Overall knowledge of subject	28	5				
Ability to explain individual topics	21	8	1			
Material presented at an appropriate pace	19	14				
Help in resolving problems	24	9	1			
Attitude and effectiveness	26	7				
Encouragement and motivation	27	5	1			
Flexibility and approachability	25	5				
Instructor's interaction with you	27	5				
Additional comments on trainer(s)/ presenter(s)						
How would you rate the following aspects of the course organisation?						
	Excellent	Good	Average	Poor	Very poor	N/a
Course joining instructions/ preparation	15	20				
Training room	13	16	4			
Accommodation	13	11	1			
Meals	11	14	3			
Refreshments	9	15	4			
Toilet facilities	7	12	9	5		
Other (specify)						
Additional comments on organisation						
Overall assessment						
	Excellent	Good	Average	Poor	Very poor	N/a
Overall quality of course content	24	11			1	
Overall quality of instructor's teaching	24	10			1	
Course objectives defined and achieved	16	19			1	
Course organisation and structure	18	13	2		1	
Integration of theory and practice	13	19	3		1	
Course materials and resources	15	16	3		1	
Any other comments that you would like to make						
Comment by course leader: The comments of very poor followed a front sheet and other scores of excellent-good and so are assumed to have been an error on the participant's part.						



ANNEX 8: PROPOSAL OF TERMS OF REFERENCE**TERMS OF REFERENCE**

 SFP ACP/OCT Programme 8ACPTPS137 	
Assignment name and number	Technical Assistance to the Competent Authority in Sierra Leone to harmonise the legislation and procedures related to the inspection and certification of fishery products exports (CA/001SLE)
Work plan activity	PE7/1.1 Strengthening the Competent Authority (CA)
Supervisor (administrative)	[someone from the consortium]
Technical Supervisor	Oscar do Porto – Expert on Sanitary Conditions of Fishery products – SFP
Background to assignment	<p>The CA001SLE mission of June/July 2009 began the process of upgrading the CA's official control activities through recommendations for changing the law, preparing procedures for control activities and carrying out training in inspection and also identified areas for future interventions.</p> <p>In particular there was a need for further training in Hazard Analysis Critical Control Point (HACCP) procedures, risk analysis, auditing, sanitary evaluation, fish spoilage and aseptic sampling techniques.</p>
Issues to be addressed	<p>In partnership with the CA, the Food Unit of the Environmental Health Department and their inspection services, acting under the Ministry of Health and Sanitation (MHS), the mission will address the need for the primary fish inspectors to be trained to a high level in inspection techniques, especially:</p> <ol style="list-style-type: none"> a) HACCP, familiarisation and auditing b) Risk analysis c) Evaluation of sanitary conditions at landing facilities, in factories and on board fishing vessels d) Auditing of food premises e) Finfish recognition and spoilage f) Aseptic sampling techniques g) Introduction to the EU's legal framework on food and feed
Activities of the Consultant	<p>The consultant will carry out training activities with a group of no more than 10 leading food inspectors from Sierra Leone's CA:</p> <ul style="list-style-type: none"> • Follow up basic training in HACCP awareness with in-depth training on HACCP in fish in the different environments of fishing vessels, landing facilities, transport facilities and processing establishments including raw and ready-to-eat foods. • Train the inspectors in risk analysis to enable them to assess risk in production facilities and to assess the frequency of monitoring needed in establishments, landing sites and the environment. • Train the inspectors in the evaluation of sanitary conditions against a background of hazard and risk analysis. • Provide training in auditing practice. • Provide training in finfish recognition, freshness and spoilage.

	<ul style="list-style-type: none"> • Provide training in aseptic sampling. • Provide training in familiarisation with equipment including but not limited to thermometers and sampling equipment. • Provide basic training in the legislation that affects exporters to the EU, in particular the CAs of the exporting nations. • Provide practical experience of each of the theoretical training elements above on site in factories, at landing sites and on fishing vessels. • Draft Terms of Reference (ToR) for complementary actions to attain full compliance with EU rules, including further training programmes and activities for the inspection service officers and industry technicians. 								
Expected outputs	<p>At the completion of the mission, the expert should present a report demonstrating the activities covering all aspects mentioned above and laying down recommendations for the improvement of the current situation, including practical, feasible ToR as a basis for further interventions to cover any additional need (in terms of training and official testing capacities) regarding unrestricted export of fish and fishery products, including crustaceans and molluscs, to important markets, particularly the EU. These should cover at least the training needed to meet the requirements of EU law.</p> <p>The consultant should present a final report, and annexes containing the records of training and training materials.</p> <p>ToR for feasible practical activities to eliminate the shortcomings encountered should also be included.</p>								
Format of each report	<p>MS Word Styles for SFP Programme Reports and Technical Papers</p> <p>Structure</p> <p>Title pages in model format as per other Programme Reports</p> <p>Table of contents, to three levels, formal format</p> <p>List of annexes</p> <p>Tables of tables, figures and pictures all formal format</p> <p>Abbreviations and acronyms</p> <p>Executive Summary (1 to 2 pages), in English and French</p> <p>Introduction</p> <p>Main body of report divided into different sections as appropriate (up to 20 pages)</p> <p>Conclusions and recommendations (each recommendation must be preceded by a conclusion, that refers to a discussion in the main body of the report)</p> <p>Annex 1 These Terms of Reference</p> <p>Annex 2 Programme and people met (including contacts)</p> <p>Annex 3 Training material used</p> <p>Any other annex(es) as appropriate</p> <p>Format as per PMU indications.</p>								
Report to be reviewed by	Carlos Palin, Programme Manager								
Duration	<table border="1"> <thead> <tr> <th>Action</th> <th>Working days</th> </tr> </thead> <tbody> <tr> <td>Preparation of training materials at home base</td> <td>4</td> </tr> <tr> <td>Briefing at PMU in Brussels</td> <td>1</td> </tr> <tr> <td>Travel to Sierra Leone</td> <td>1</td> </tr> </tbody> </table>	Action	Working days	Preparation of training materials at home base	4	Briefing at PMU in Brussels	1	Travel to Sierra Leone	1
Action	Working days								
Preparation of training materials at home base	4								
Briefing at PMU in Brussels	1								
Travel to Sierra Leone	1								



	Preparation of training materials	2
	Training inspectors	10
	Preparation of recommendations and ToR. Discuss FVO findings with CA and stakeholders	4
	Debriefing to Authorities & Delegation in Sierra Leone	1
	Travel to Europe	1
	Debriefing of PMU in Brussels	1
	Writing of report	2
	Total	27
	Total working days will equal 30 calendar days.	
Start date	September 2009	
Completion dates for Reports and fee payment schedule	Draft report 5 working days after the return to Europe Comments Within 2 weeks of reception Final report 5 working days after reception of comments by SFP/PMU including comments of authorities Final report basis for relevant payments	
Experience and qualification	Expert of category II (at least 10 years of experience) Qualifications and skills: <ul style="list-style-type: none"> - A University degree in veterinary, food technology or related sciences - Knowledge of English is essential. The applicant must be of EU or ACP member state nationality. General professional experience: <ul style="list-style-type: none"> - Profound knowledge of EU regulation relevant to control of fish and fishery product sanitary status. - Long term background in fish and fishery product surveillance Specific professional experience: <ul style="list-style-type: none"> - Long term background in the application of EU legislation and procedures for inspection and certification in third countries; the drafting of procedural manuals for inspection and certification, and the design and setting up of self-control systems, based in the HACCP methodology, by the food industry as well as their audit by the official inspection bodies. 	
Locations and travel	Based in Freetown, 1 travel to Sierra Leone and two to Brussels and up to 19 days per diems	

TERMS OF REFERENCE

 SFP ACP/OCT Programme 8ACPTPS137 	
Assignment name and number	Technical Assistance to the Competent Authority in Sierra Leone to harmonise the legislation and procedures related to the inspection and certification of fishery products exports (CA/001SLE)
Work plan activity	PE7/1.1 Strengthening the Competent Authority (CA)
Supervisor (administrative)	[someone from the consortium]
Technical Supervisor	Oscar do Porto – Expert on Sanitary Conditions of Fishery products – SFP
Background to assignment	<p>The CA001SLE mission of June/July 2009 began the process of upgrading the CA's official control activities through recommendations for changing the law, preparing procedures for control activities and carrying out training in inspection and also identified areas for future interventions.</p> <p>In particular there was a need for further training in the evaluation of sanitary conditions, in this case through experience of factories in foreign countries (e.g. the UK) where benchmarks would be obtained for operational conditions.</p>
Issues to be addressed	<p>In partnership with the CA, the Food Unit of the Environmental Health Department and their inspection services, acting under the Ministry of Health and Sanitation (MHS), the mission will address the need for the primary fish inspectors to be trained to a high level in inspection techniques, especially:</p> <ol style="list-style-type: none"> a. Evaluation of sanitary conditions in factories, landing sites and markets. b. Valuable experience of fish retail in supermarkets.
Activities of the Consultant	<p>The consultant will carry out training activities with a group of no more than five leading fish inspectors from Sierra Leone's CA.</p> <ul style="list-style-type: none"> • Follow up to training provided in Sierra Leone with practical inspection of factories, markets and landing sites. Including visits to: <ol style="list-style-type: none"> a. At least two primary fish processing establishments b. A visit to a mollusc depuration facility c. A visit to a ready-to-eat foods establishment • Require the trainees to carry out assessments and provide written reports on their experience and development.
Expected outputs	<p>At the completion of the mission, the expert should present a report demonstrating the activities covering all aspects mentioned above and laying down recommendations for the improvement of the current situation, including practical, feasible ToR as a basis for further interventions to cover any additional need (in terms of training and official testing capacities) regarding unrestricted export of fish and fishery products, including crustaceans and molluscs, to important markets, particularly the EU.</p> <p>The consultant should present a final report, and annexes containing the records of training and training materials.</p> <p>ToRs for feasible practical activities to eliminate the shortcomings encountered should also be included.</p>
Format of each report	<p>MS Word Styles for SFP Programme Reports and Technical Papers</p> <p>Structure</p> <p>Title pages in model format as per other Programme Reports</p>

	<p>Table of contents, to three levels, formal format</p> <p>List of annexes</p> <p>Tables of tables, figures and pictures all formal format</p> <p>Abbreviations and acronyms</p> <p>Executive Summary (1 to 2 pages), in English and French</p> <p>Introduction</p> <p>Main body of report divided into different sections as appropriate (up to 20 pages)</p> <p>Conclusions and recommendations (each recommendation must be preceded by a conclusion, that refers to a discussion in the main body of the report)</p> <p>Annex 1 These Terms of Reference</p> <p>Annex 2 Programme and people met (including contacts)</p> <p>Annex 3 Training material used</p> <p>Any other annex(es) as appropriate</p> <p>Format as per PMU indications.</p>																						
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Action	Working days																						
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Experience and qualification	<p>Expert of category II (at least 10 years of experience)</p> <p>Qualifications and skills:</p> <ul style="list-style-type: none"> - A University degree in veterinary, food technology or related sciences - Knowledge of English is essential. The applicant must be of EU or ACP member state nationality. <p>General professional experience:</p> <ul style="list-style-type: none"> - Profound knowledge of EU regulation relevant to the control of fish and fishery product sanitary status. - Long term background in fish and fishery product surveillance. <p>Specific professional experience:</p> <ul style="list-style-type: none"> - Long term background in the application of EU legislation and procedures for inspection and certification in third countries; the 																						

	drafting of procedural manuals for inspection and certification, and the design and setting up of self-control systems, based in the HACCP methodology, by the food industry as well as their audit by the official inspection bodies.
Locations and travel	Based in xx, 1 travel to Sierra Leone and two to Brussels and up to 22 days per diems

Sierra Leone		
 		
Capital	Freetown	
Size	71,740	
Population	5,526,000	
Calling Code	+232	
Time Zone	Standard Time +0000 UTC/GMT	
Official languages	English, Krio	
Area of EEZ (km2)	215,611 (28,625) km ²	
Visa Information	Everyone (except members of ECOWAS) needs a visa to visit Sierra Leone	
Voltage	230 V	
Frequency	50 Hz	
Plug	D & G	
Competent authority	Source: Email CA	
	Organization	Foods Unit, Environmental Health, Ministry of Health and Sanitation
	Name	Hotanga Arnold
	Family name	Robbie
	Job Title	Principal Fisheries Officer
	Address	Ministry of Fisheries and Marine Resources, Kissy Dockyard
	Zip Code	Freetown
	Country	Sierra Leone
	Email	hotangaa@yahoo.com
	Telephone	+232 76 617 042/+232 33 45 02 45

Sierra Leone		
EU Delegation in the country	Source: EUD	
	Organization	EU Delegation in Sierra Leone
	First Name	Ritchie
	Family name	Jones
	Job Title	Project Officer (Rural Development Section)
	Address	25 Main Regent Road, Leicester Square, Regent, Freetown
	Country	Sierra Leone
	Email	Ritchie-Peter.Jones@ec.europa.eu
	Telephone	+232-76-727955 / +232-76-520094
	Other contacts from this organization:	
	Matthias Reusing	Head of Rural Development Section
Olive Macauley	Secretary	Olive.Macauley@ec.europa.eu