

Online Advanced Course

ORGANIZATION OF FISHERIES STATISTICS SYSTEMS

9-19 November 2020

1. Objective of the course

There is a global need for timely, reliable and comprehensive fisheries statistics and this need has never been more acutely felt than at present, when most countries are engaged in the implementation of national, regional and international plans aiming at more effective monitoring and management of sustainable capture fisheries. It is recognized that fisheries policy and management objectives need to be based upon timely and reliable data. The most important sources of data include fishing fleet, landings, catch and effort, biological sampling of the catches, trade and other socio-economics information.

The objective of the course is to help professionals of national fisheries administrations and institutions go through a comprehensive learning cycle, starting with the definition of the needs for statistics in support to fisheries management and policy making; continuing with the different types of required data and collection systems; and concluding with the implementation of robust fisheries statistics and management information systems. The course is intended not only to present the theoretical elements of designing and implementing fisheries statistical systems but also to guide participants in the pathway on the why, what and how to put theory into practice, illustrated by concrete examples and detailed case studies. The course goal is to enable trainees to directly use acquired knowledge for improving the performance of national systems in which they are involved.

By the end of the course, the participants will:

- Be able to define required data for statistics in support to fisheries management and evidence based policy making.
- Recognize the need for fisheries statistical systems to be robust and accurate and, at the same time, cost-effective and sustainable.
- Be able to define the most efficient data collection methodology (census or sampled-based approach), according to the country specificities.
- Become familiar with the fundamental principles of sampling that have direct impact on the reliability of the derived statistics.
- Be aware of the importance of the use of international standard classifications, concepts and definitions to enable harmonised information exchange and reporting.
- Acquire knowledge of the growing use of modern communication tools in data collection, processing and reporting.

Consequently, the course will help national experts in fisheries statistics to design, plan and implement regular data collection programmes more easily and effectively.

2. Organization

The course is jointly organized by the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), through the Mediterranean Agronomic Institute of Zaragoza (IAMZ), and the Food and Agriculture Organization of the United Nations (FAO), through the Fisheries and Aquaculture Department. The course will be offered online, with live streaming lectures, given by well qualified lecturers from international organizations and from research centres, administration services and consulting firms in different countries.

The course will be held from 9 to 19 November 2020, over 9 days, 4 hours per day, scheduled from 14:00h to 18:30h (Central European Time).

3. Admission

The course is designed for 25 professionals with a university degree, and is addressed to fisheries managers, statisticians and researchers with responsibilities in fisheries data collection and in the design, production and use of fisheries statistics.

Given the diverse nationalities of the lecturers, knowledge of English, French or Spanish will be valued in the selection of candidates, since they will be the working languages of the course. The Organization will provide simultaneous interpretation of the lectures in these three languages.

4. Registration

Candidates must apply online at the following address:
<http://www.admission.iamz.ciheam.org/en/>

Applications must include the *curriculum vitae* and copy of the supporting documents most related to the subject of the course.

The deadline for the submission of applications is 1 October 2020. The deadline may be extended for candidates not applying for a grant if there are vacancies available.

Applications from those candidates requiring authorization to attend the course may be accepted provisionally.

Registration fees for the course amount to 400 euro.

5. Financial support

Candidates from CIHEAM member countries (Albania, Algeria, Egypt, France, Greece, Italy, Lebanon, Malta, Morocco, Portugal, Spain,



Tunisia and Turkey) may receive financial support covering registration fees. Applications from other FAO member countries may also be considered.

Candidates from other countries who require financial support should apply directly to other national or international institutions.

6. Teaching organization

The course requires personal work and interaction among participants and with lecturers. The different background of lecturers provides participants with diverse points of view that enrich the programme of the course.

Formal lectures are supplemented by illustrated examples and case studies, these activities enhancing the exchange of ideas between lecturers and participants. During the course, participants will work in groups on practical exercises to enable them to put theory into practice.

7. Programme

1. Introduction to Fisheries Statistics (4 hours)

- 1.1. Why Fisheries Statistics?
 - 1.1.1. Growing demand of information, data and statistics
 - 1.1.2. Statistics in support to evidence based national policy making
 - 1.1.3. Statistics in support to national fisheries management
 - 1.1.4. Statistics in support to regional and international fisheries management
- 1.2. What data to be collected for which fisheries statistics?
 - 1.2.1. Overview of data
 - 1.2.2. Indicators and variables
 - 1.2.3. Coordinating Working Party on fisheries statistics (CWP)
- 1.3. How to produce fisheries statistics
 - 1.3.1. From data collection ...
 - 1.3.2. ... to Fisheries Statistics
 - 1.3.3. Need for reporting
 - 1.3.4. Need for stock assessment process
 - 1.3.5. Data policies: security of data, confidentiality, data access and data sharing

2. Fisheries data collection systems (10 hours)

- 2.1. Administrative data
 - 2.1.1. Vessel registry/vessel record
 - 2.1.2. Fishers registry
 - 2.1.3. Licences
 - 2.1.4. Examples of vessel registries: national registries, global vessel records
- 2.2. Census-based data
 - 2.2.1. Common methodological and operational characteristics
 - 2.2.2. Formulation of indicators
 - 2.2.3. Financial and human resources aspects
 - 2.2.4. Case studies
- 2.3. Sample-based data
 - 2.3.1. Methodological aspects and numerical examples

- 2.3.2. Practical guidelines in the design of sample fishery surveys
- 2.3.3. Financial and human resources aspects
- 2.3.4. Comparison with census-based systems
- 2.3.5. Exercises (number of samples needed, confidence interval)
- 2.3.6. Case study: Small Scale Fisheries, Greece

3. Specific fisheries data collections (5 hours)

- 3.1. Biological data and stock assessment
 - 3.1.1. Common methodological and operational characteristics
 - 3.1.2. Stock assessment models
 - 3.1.3. Case study on compliance on requirements for data collection on Blue Fin Tuna fisheries (ICCAT)
- 3.2. Fisheries socio-economic statistics
 - 3.2.1. Fleet and fishers
 - 3.2.1.1. Objectives of socio-economic data collection
 - 3.2.1.2. Setting up a socio-economic survey
 - 3.2.1.3. Sampling design – from variables to sample selection
 - 3.2.1.4. Data collection – training data collectors
 - 3.2.1.5. Data quality checks and raising the sample
 - 3.2.1.6. Calculating indicators
 - 3.2.1.7. Data presentation and utilization – from the field to policy advice
 - 3.2.2. Seafood marketing data
 - 3.2.2.1. Definition and objectives (prices, formats)
 - 3.2.2.2. Type of data and data sources

4. National Fisheries Statistics and Management Information Systems (FISMIS) (3 hours)

- 4.1. Design and implementation of FISMIS
 - 4.1.1. Management of national classifications, mapping with regional and international standards
 - 4.1.2. Data and information domains: administrative data, fishing activities (landing form, logbook, other data flows)
 - 4.1.3. Statistical Working System (data collection and processing) and Data warehouse for dissemination
 - 4.1.4. Statistics, other domains, geographic information systems (GIS)
- 4.2. FAO approach to FISMIS implementation
- 4.3. New tools for data collection, processing and reporting
- 4.4. Case study on FISMIS, Spain

5. Regional and International fisheries statistics (5 hours)

- 5.1. Eurostat statistics
 - 5.1.1. European fisheries statistics framework
 - 5.1.2. Future trends on fisheries statistics
 - 5.1.3. Online database
- 5.2. FAO and fishery statistics
 - 5.2.1. FAO fisheries statistics
 - 5.2.2. Support to Regional fisheries framework (e.g., GFCM, WECAFC)

6. Working groups to carry out practical exercises on the organization of fisheries statistics systems (7 hours)

7. Open discussion (1 hour)

GUEST LECTURERS

J. GEE, FAO, Rome (Italy)
J. GEEHAN, FAO, Rome (Italy)
Y. LAURENT, Fisheries statistics expert, Tarbes (France)
O. GÓMEZ-PRIETO, Eurostat (Luxembourg)

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S. SPYROULIS, ELSTAT, Piraeus (Greece)
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