



CWP

Coordinating Working Party on Fishery Statistics

Progress report of the CWP ad-hoc Task Group on best practices for streamlining statistical data workflow and confidentiality issues

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Rationale for the Task Group

In response to SDG goals including *SDG 14: Life below water*, many organizations are developing initiatives which promote good governance, participatory decision-making processes and best practices in fisheries.

These include:

- **improving the quality and utility** of fishery and aquaculture data such as streamlining of arrangements for improving consistency
- **reducing discrepancies** among published global and regional datasets
- **reducing the reporting burden** for countries

Streamlining statistical data workflow

CWP 26 identified various actions to further streamline the reporting mechanisms and workflow for capture fishery and aquaculture statistics:

- **Aligning annual data calls and reporting calendars** in order to facilitate data sharing (although may potentially result in a synchronous submission of large amounts of data that may result in pressure points within organizations)
- Implementing **consistent statistical concepts**, standards and definitions
- **Developing mainstream data provisions** which can serve multiple reporting requirements of member countries
- **Improving accessibility of data** through the use of harmonized and accessible formats
- Identifying and **resolving data gaps and discrepancies** through collaborative analysis
- **Improving transparency** through systematic processing and documentation of data sources.



Streamlining statistical data workflow

CWP also agreed that the reporting of national statistics may be further streamlined by:

- **Improving collaboration and exchange of data** among CWP parties through the use of CWP and other international standard classifications
- Developing comprehensive and accessible **data validation, metadata and documentation**, and providing data users **timely and transparent information** in relation to those.
- Providing data users with timely and transparent information on data validation rules, metadata and associated documentation
- Encouraging parties to **identify and share statistical data and reporting issues** such as interpretation and application of standard concepts
- Developing and using comprehensive and accessible **Data Collection Reference Frameworks** (e.g. CWP standard for reference harmonization, catch and effort concepts and classification)
- **Using joint questionnaires**, where possible, to reduce the number of different focal points and thus reduce the reporting burden for the national statistical offices
- Developing and implementing FAIR data principles for **making data findable, accessible, interoperable and reusable**.



Data confidentiality

CWP also discussed **data confidentiality issues which may hamper the dissemination and exchange** of statistical data among CWP parties.

In general, statistical data confidentiality requirements **seek to protect individual identities** including, *inter alia*, aquaculture producers. Statistical data confidentiality requirements differ from those of the General Data Protection Regulation (GDPR) and CWP parties use **various rules and procedures** to deal with statistical data confidentiality.

Data confidentiality

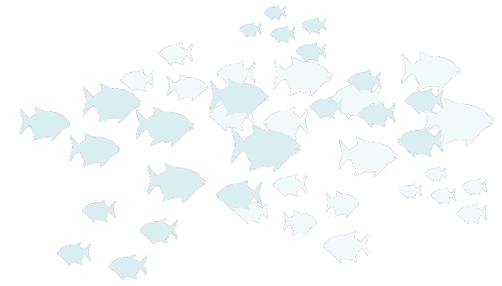
The responsibility for decisions on the dissemination of statistical data are generally well defined in RFMOs, and CWP highlighted the following points for consideration in further developing statistical data confidentiality requirements. These requirements should:

- **allow metadata from masked data to be published** (i.e. flag the existence of masked data in order to facilitate the possible use of such data under specific conditions)
- consider **temporal limitations** on data confidentiality
- **identify aggregation dimensions and levels**, whereby individual entities can be no longer identified
- provide **clear rules of use for each dataset** through published data access and sharing policies
- consider **exceptions to data confidentiality** rules which may be needed if, for example, the dissemination of data from endangered species is limited by requirements for confidentiality.

Objectives of the ad-hoc Task Group

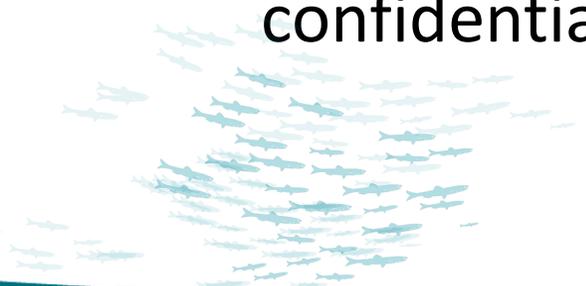
- Review the statistical data workflow of CWP parties and observers and other relevant cases involved in capture fisheries and aquaculture, and **identify general issues and constraints** which may lead to **discrepancies and replications** in statistical data and **undue data reporting burden** on member countries
- **Review statistical data confidentiality** requirements and rules of CWP parties and other relevant organizations
- Develop best practice guidelines for:
 - **streamlining the reporting mechanisms and workflow** for capture fishery and aquaculture statistics
 - **reducing the overall data reporting burden** on member countries
 - the implementation of statistical data **confidentiality requirements** which protect data confidentiality and promote **comprehensive, transparent and timely dissemination and exchange** of statistical data.

Steps agreed at Intersessional Meeting



Two main action points were agreed upon during the CWP Intersessional Meeting:

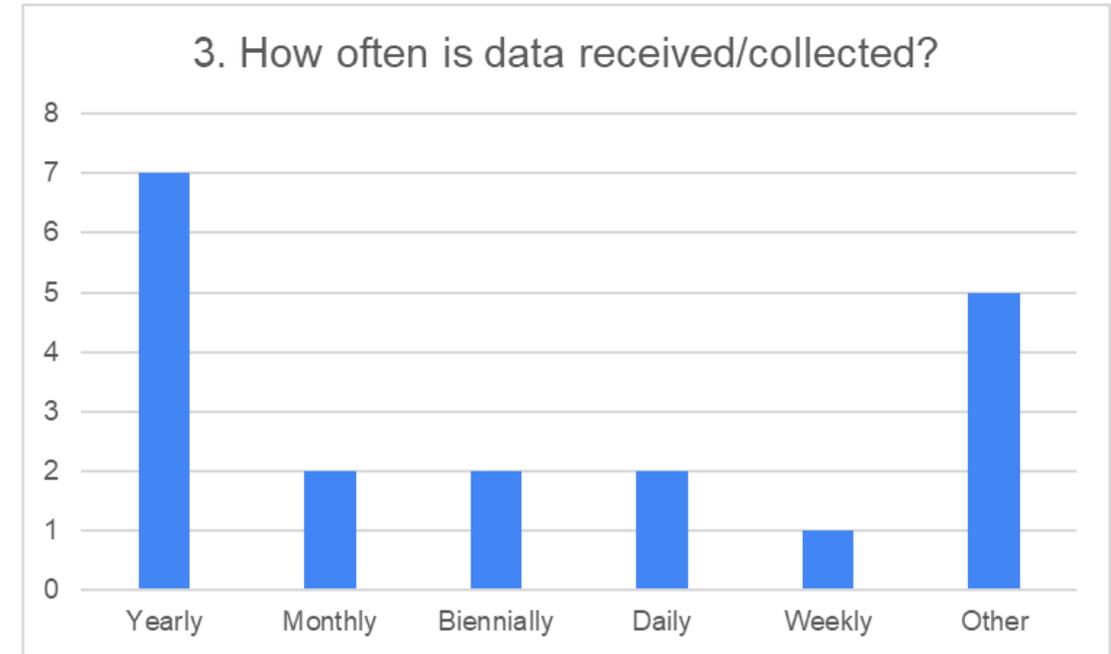
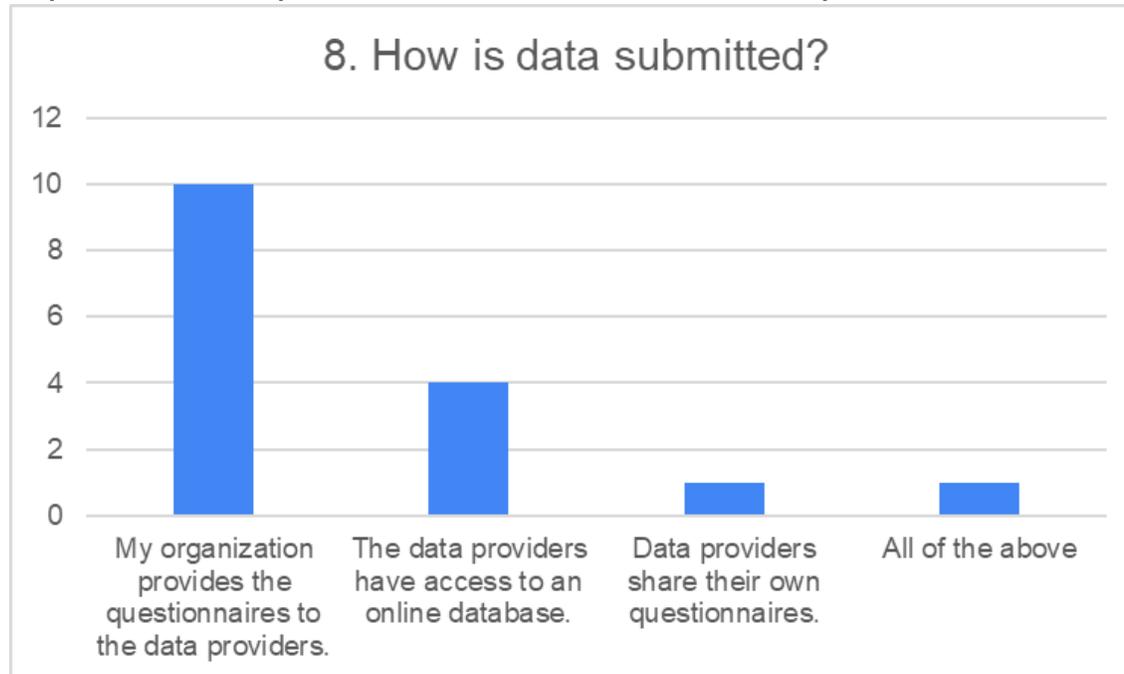
1. Further expand the coverage of the questionnaire in order to obtain a more comprehensive overview of the different practices at place in all CWP member organizations.
2. Analyze these practices in more detail, involving the organizations that display more similarities in terms of data collection and confidentiality procedures.



Questionnaire on Approach to Data Workflow

UPDATED RESULTS:

- Almost all respondents (82 percent) are responsible for data collection and collation.
- In terms of frequency, the majority of respondents receive data yearly or biannually, and 70 percent of respondents make formal data calls (mostly thorough emails), and the majority provide a questionnaire to the data providers.

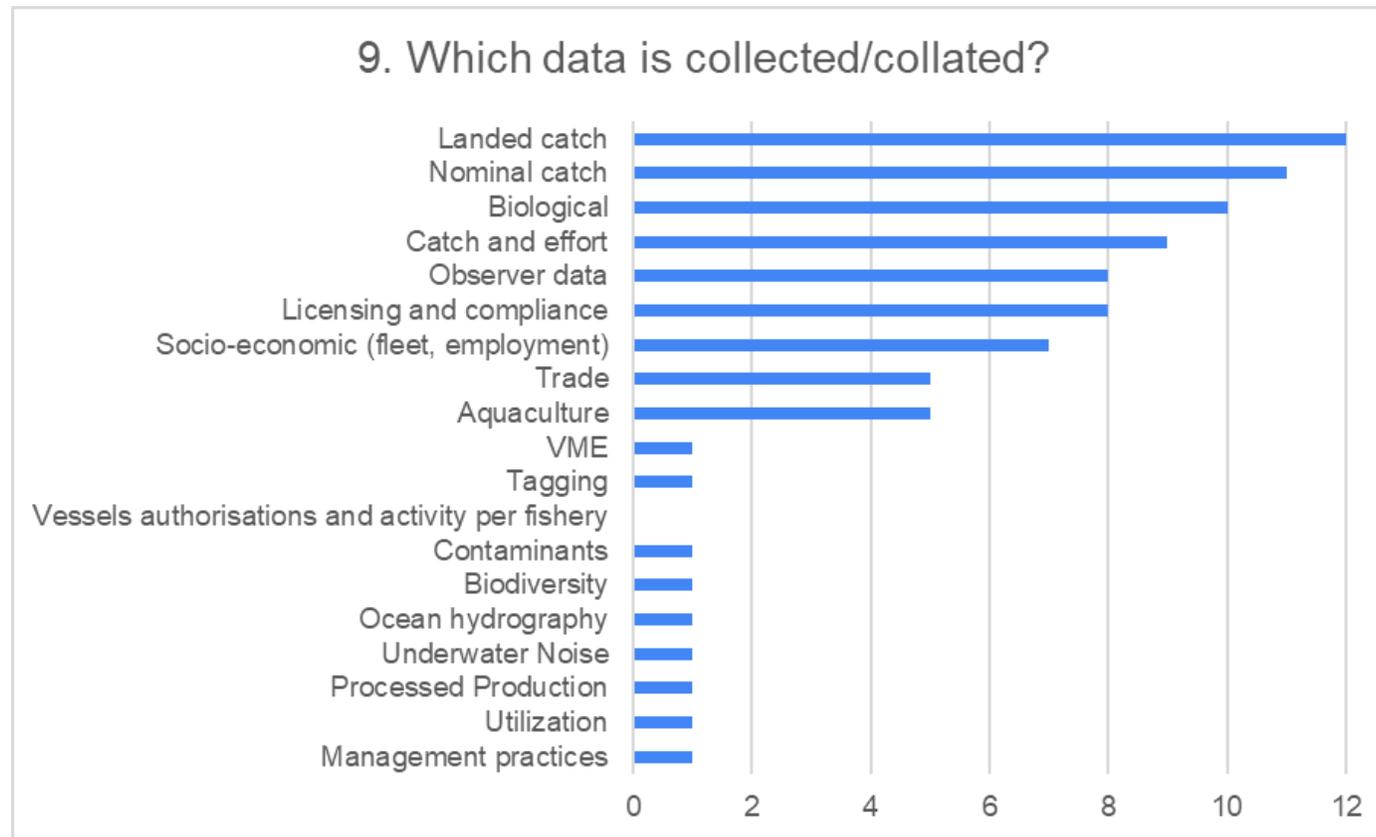


(Allowed more than one answer per respondent)

All figures show the results by number of answers received

Questionnaire on Approach to Data Workflow

- Consumption data is not collected by any of the respondents, while aquaculture data and trade data are only collected and collated by 31 percent. The most widely collected data is that of landed catch (75 percent).

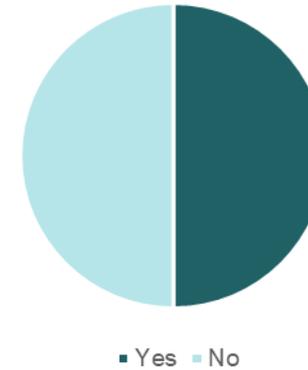


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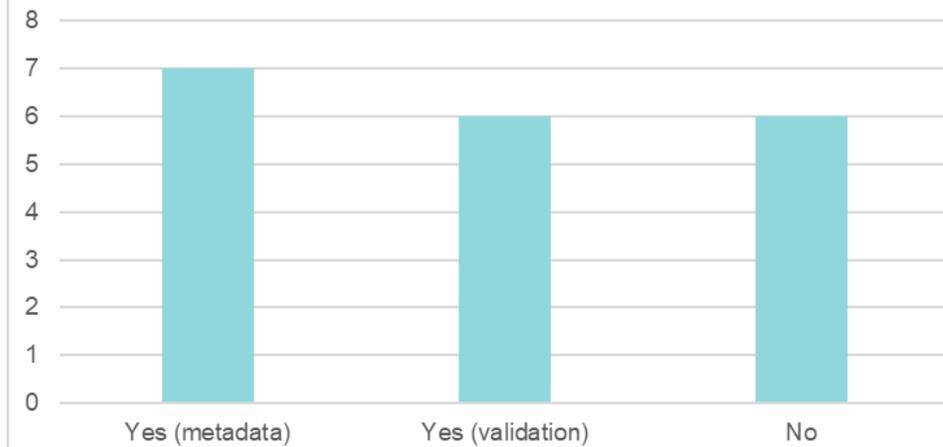
Questionnaire on Approach to Data Workflow

- CWP standard and definitions are widely endorsed (70 percent), while slightly less organizations use other international standards (50 percent). All organizations except one use ASFIS three-alpha codes to categorize species.
- All respondents, except one, indicated that data is shared outside their organization, mostly through online portals accessible to the public, and data goes through a process of validation and standardization before being published
- Most organizations publish either data validation practices or metadata, but only three respondents publish both.

12. Are other international classifications used in the collection and dissemination of data?



18. Do you publish comprehensive data validation practices and metadata?

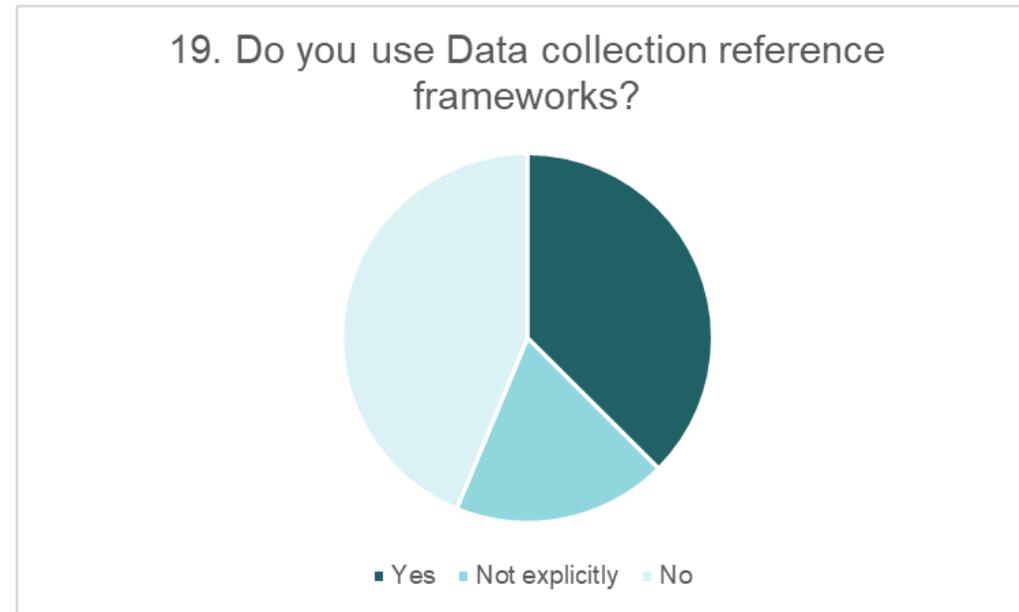


(Allowed more than one answer per respondent)

Questionnaire on Approach to Data Workflow

It is important to highlight how organizations are not aligned on other aspects of data workflow.

- Only 38 percent of respondents use a Data Collection Reference Frameworks.



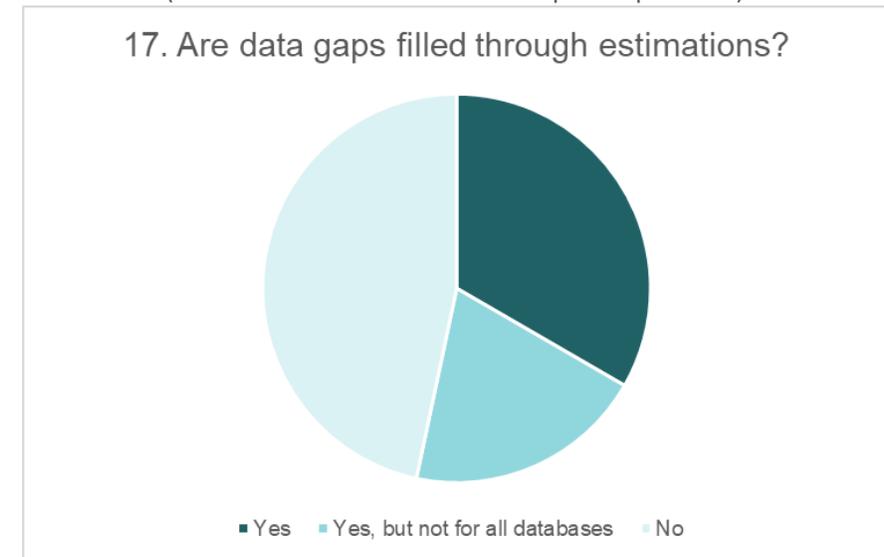
- Most organizations collaborate and/or exchange data with other organizations (75 percent), but a smaller amount (50 percent) uses a joint questionnaire and harmonizes data.

Questionnaire on Approach to Data Workflow

- Over 80 percent of respondents stated that the deadline for data submission is aligned with internal workflows and deadlines.
- The deadlines for the data submissions for each organization are spread throughout the year.
- Regarding the use of estimations to fill data gaps, respondents are almost equally split between positive and negative answers.



(Allowed more than one answer per respondent)

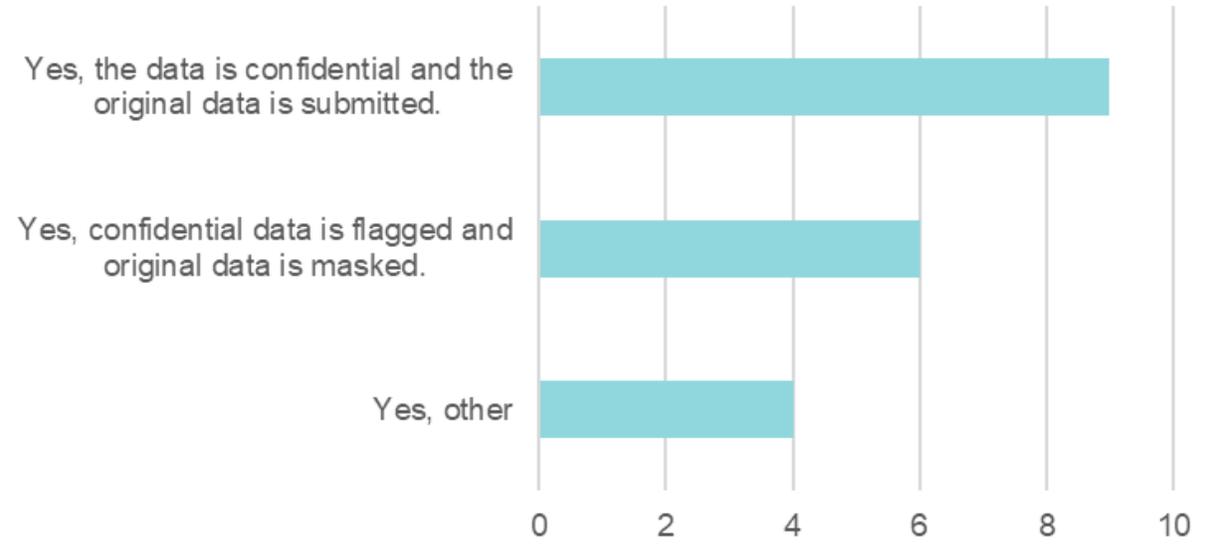


Questionnaire on Approach to Confidentiality

RESULTS:

- All organizations receive confidential data from data providers:
 - with the original data (47 percent)
 - with masked original data (32 percent)
 - with mixed approaches (21 percent).
- Over 80 percent of respondents do not flag data as confidential when the providers did not flag it as confidential.

1. Does your organization receive confidential data from its data providers?

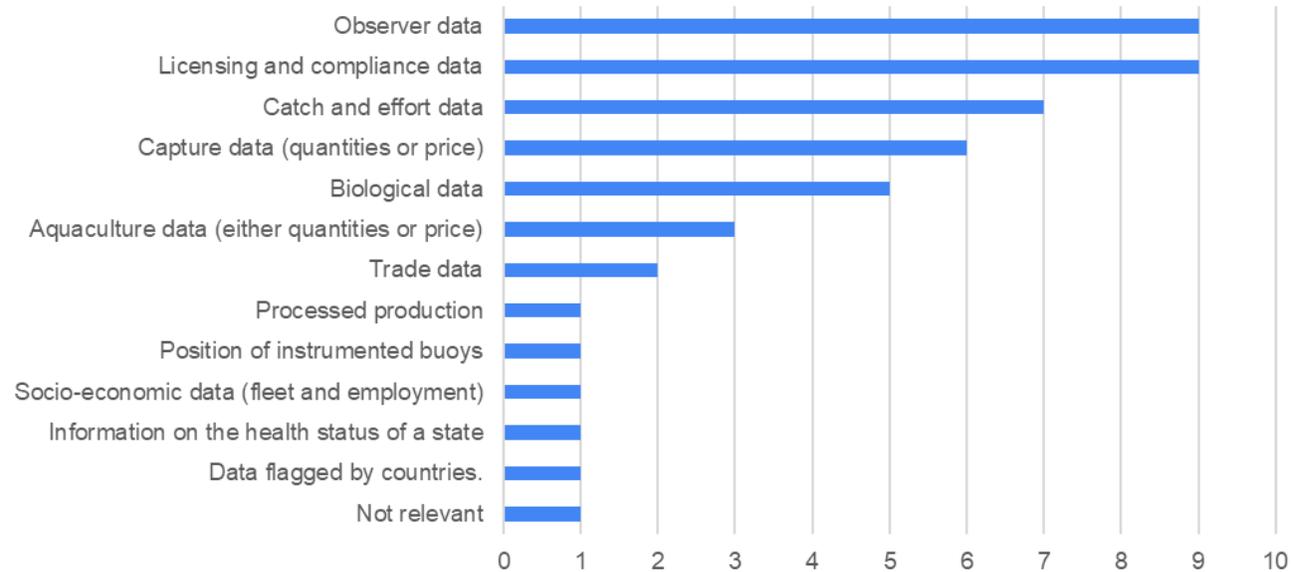


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Questionnaire on Approach to confidentiality

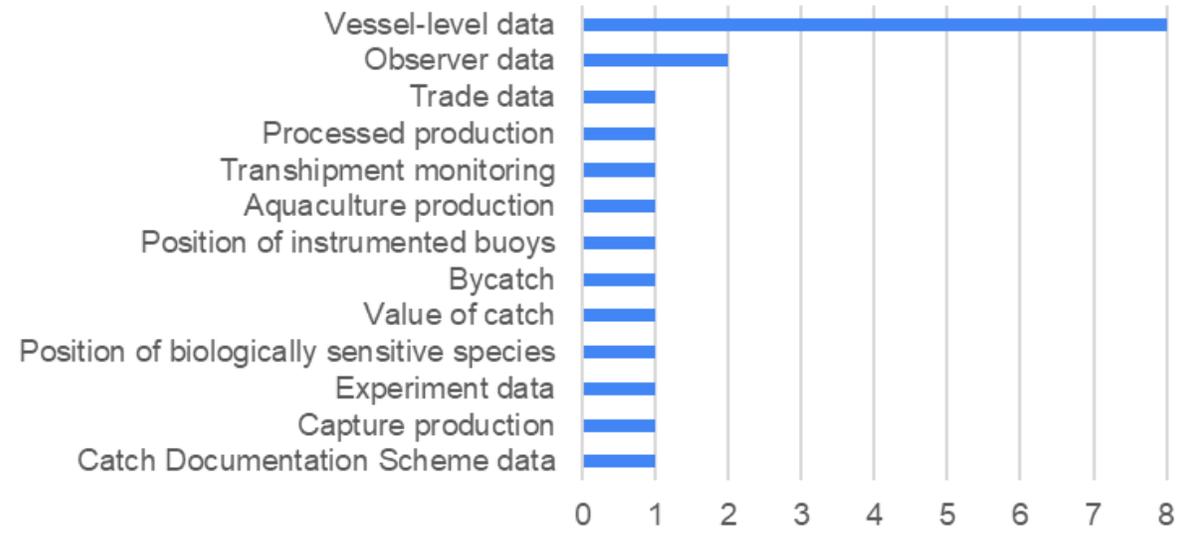
- The data considered most confidential is observer data, licensing and compliance data, and catch and effort data. Aquaculture data, on the other hand, was not significantly flagged as confidential. In particular, vessel-level data was given as a common example of data variables considered as being confidential.

3. Which data does your organization consider as being confidential?



(Allowed more than one answer per respondent)

4. Please provide examples of data variables which are considered as being confidential.

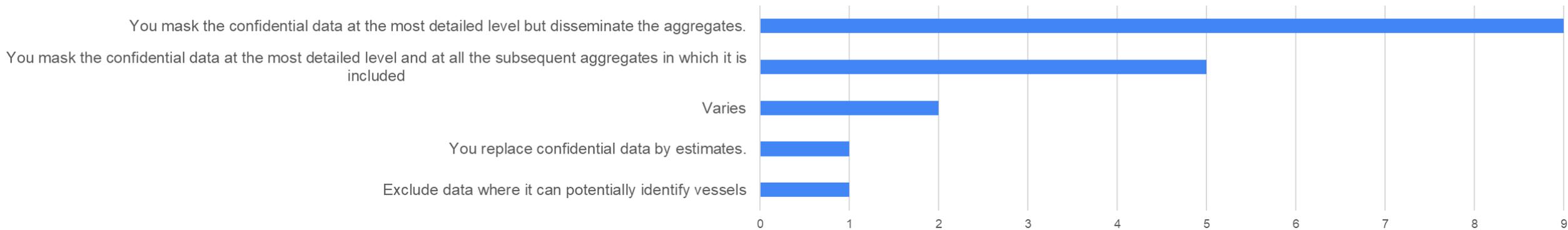


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Questionnaire on Approach to confidentiality

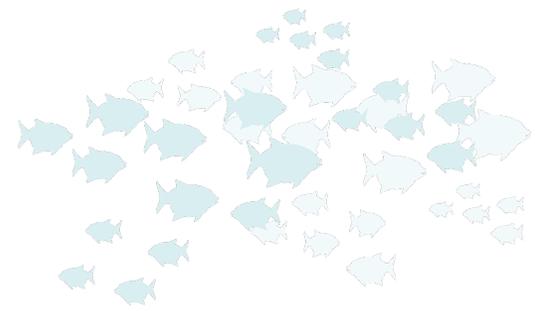
- When disseminating data, 37 percent of the respondents indicated confidential data is masked at the most detailed level and at all the subsequent aggregates in which it is included, while 50 percent mask the confidential data but disseminate the aggregates.
- Overall, no temporal limitations are applied to confidentiality rules.

6. When disseminating data, how does your organization handle confidential data?



(Allowed more than one answer per respondent)

Main outcomes of bilateral meetings

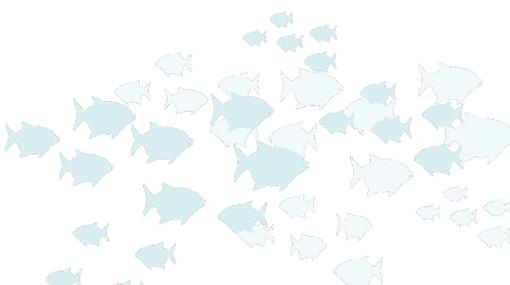


DATA WORKFLOW

HARMONIZATION OF DATA CALLS AND SUBMISSIONS

- To facilitate workflow, reduce overburdening for data providers, and avoid inconsistencies, RFMOs and other agencies could act as **“intermediary”** between data providers and FAO/other CWP parties who require access to the same data. This could apply to specific units such as species of interest (for example in the case of tuna RFMOs).
- When planning deadlines, consider the availability of **national data**, which means deadlines can be constrained by the data providers.
- Learn from current examples, where **joint questionnaires** have been deployed, a good degree of success has been achieved (e.g. FAO-OECD employment questionnaires, which resulted in a higher response rate).
- Overall, it can be a difficult objective as many organizations are tied to **Commissions and subsidiary bodies**.

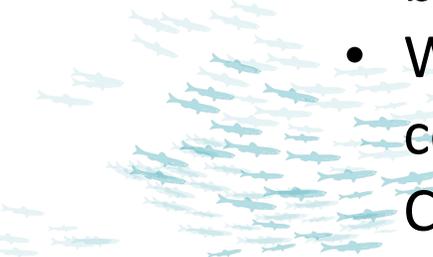
Main outcomes of bilateral meetings



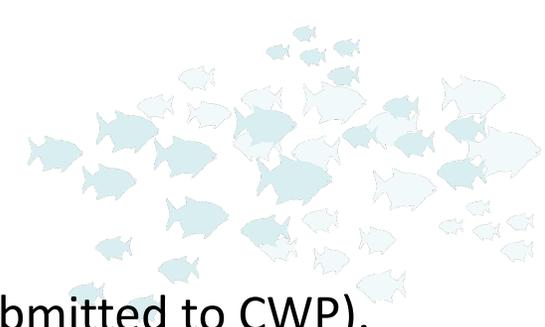
LOW LEVEL OF SUBMISSION FOR CERTAIN DATA

- Analyse the reasons behind **low levels of submissions** (for example low success of country level programmes and initiatives, time consuming/non user friendly questionnaire, overburdened data providers, politically sensitive data, format/level of aggregation not applicable).

STANDARDIZATION OF CWP STANDARDS AND CONCEPTS

- Overcome the **loss of granularity** of the original data that stems from mapping local concepts (for example SSF gear and vessel types).
 - Consider **simplification** of CWP definitions, for better understanding by the data providers.
 - Where **new frameworks** are being developed, include as many CWP concepts and standards as possible. Organizations should reach out to CWP for support and any further discussions if needed.
- 

Main outcomes of bilateral meetings



INTRODUCE NEW CWP CONCEPTS AND STANDARDS

- Standard list of effort units by **gear** for small-scale fisheries (proposal already submitted to CWP).
- Inclusion of standards and definitions for **recreational fishing, discards and slipping, non-commercial catches**.
- CWP Glossaries, terms and concepts should keep into account new **CWP partner specificities**.
- **Employment** concepts (e.g. distinctions between deep-sea and marine coastal fishers as ILO ISCO 08).

VALIDATION AND HARMONIZATION OF ESTIMATES

- Sharing of **estimate methodologies** between CWP parties and investigate potential of adopting a common approach.
- Attempt to identify which approaches each partner uses on **gap completion estimates**.

JOINT QUESTIONNAIRES FOR SHARED DATA

- Although a useful tool, consider the granularity of the data received, and the need to **reduce the resolution** to meet the requirements of some CWP parties, therefore potentially losing detail (for example if data is submitted by gear, but only required by some organizations by species).

Conclusions

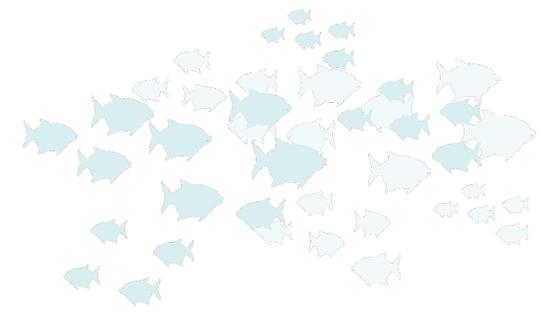


Overall, there is consensus that improved data sharing, reduced burden on data providers and harmonized outputs are important objectives, and there is willingness to work towards their even partial achievement. However, a number of obstacles were highlighted both in the questionnaire as well as in the bilateral meetings, as below:

- **Legal ties** to Commissions and subsidiary bodies/member countries.
- Differences in the **detail requested** by the organizations to data providers.
- Constraints in harmonized deadlines due to national calendars.

There was general agreement that the CWP concepts and standards should be adhered to as much as possible, and that CWP Members should **communicate and coordinate** concerning new data collection programmes/plans, or for overlapping datasets. CWP Members should actively strive for **coherence and comparability** between data collection standards

Main outcomes of bilateral meetings



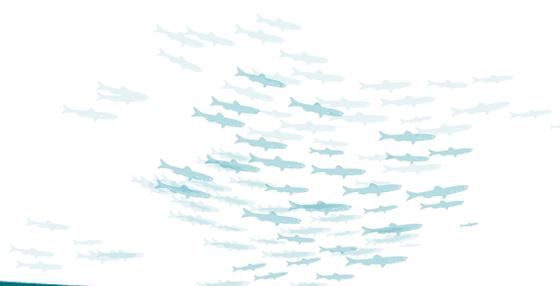
CONFIDENTIALITY

COMMON CONFIDENTIALITY RULES

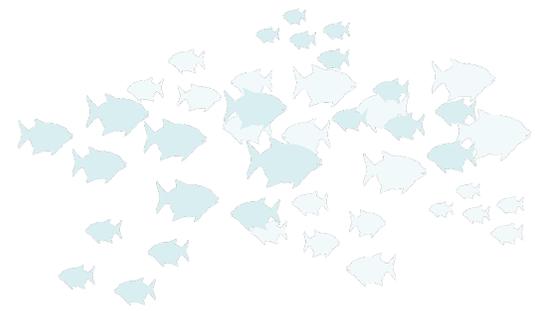
- Most CWP members receive confidential data from their data providers => at least for the TG members, there is **little scope for enforcing** confidentiality rules to the data providers.
- Some data is considered as more sensitive, such as price data, vessel locations, etc.
- Actions and changes are dependant on the **individual confidentiality policies**.

COMMON DATA ESTIMATION APPROACH

- TG members were more interested in finding ways allowing to **disclose confidential data** than in developing common approaches to estimate data gaps related to confidential data points.



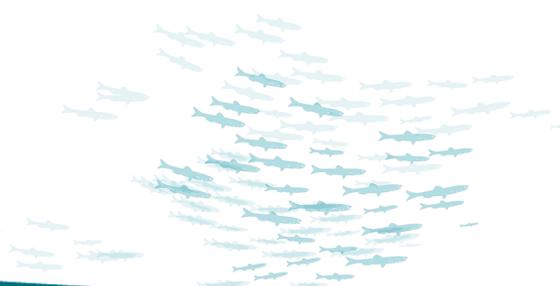
Main outcomes of bilateral meetings



DISSEMINATION OF AGGREGATES WITH CONFIDENTIAL DATA

Sharing of approaches between CWP parties and investigate potential of adopting a common set of approaches. Approaches include:

- Disclosing data at a **higher level of granularity**
- **Aggregating** all confidential data into one group
- **Exclude** confidential data when **negligible**
- Adding **statistical noise** in the data to bypass the confidentiality issue
- Relax confidentiality rules after a **set amount of time** (for example five years)
- If in agreement with the organizations policy, an agreement to **disseminate aggregates with confidential data** is feasible.



Conclusions

The discussions carried out highlighted how confidentiality regulations are tightly linked to the data providers, meaning CWP Members have **little scope for enforcing new standards**. However, overall there is interest in exploring **ways to disclose confidential data** (examples include aggregating all confidential data in one group, or disclosing data at a higher level of granularity), and to **develop common approaches** between CWP Members.

Next steps



The results of the questionnaire and the bilateral meetings will provide a basis for the TG's discussion on the development of best practice guidelines, in particular for **confidentiality standards**, as there seems to be limited scope for workflow guidelines.

In this respect, and as emerged from the conversations with Task Group Members, further discussion is needed to identify potential ways to facilitate and encourage the **dissemination of confidential data**.

In addition, only three CWP have not filled the **questionnaire** on data workflow and confidentiality and they are kindly invited to fill it in order to have a comprehensive overview of all Members.



Thank you ▪ Merci
Благодарю ▪ ¡Muchas gracias!
謝謝 ▪ شكرا

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