

SOUTH WEST INDIAN OCEAN FISHERIES PROJECT (SWIOFP)



SWIOFP/STATBASE WORKING GROUP N°3 7-11 DEC. 2009, MOMBASA, KENYA



DECEMBER 2009

1. INTRODUCTION

The third SWIOFP/StatBase working group (WG) took place in Mombassa, Kenya hosted by KMFRI (Kenya Marine and Fisheries Research Institute). The primary objective of this WG was to physically recover statistical datasets identified during WG 2 (April 2009) and introduce these datasets into StatBase V3.0, a web version. A further objective of WG 3 was to develop a work plan for 2010. All SWIOFP countries were represented by one or two participants. The agenda of the meeting and list of participants are attached as Annex 1 and 2, respectively. Mr Rondolph Payet, the SWIOFP project manager, welcomed the group and wished everyone a productive working session.

2. FINALIZATION OF INVENTORIES

The inventory of datasets and statistical tables by countries was updated (see tables below). This meeting confirmed that the western Indian Ocean countries are data rich. A total of 25 datasets for 25 different fisheries were identified and these dataset incorporate 67 statistical tables for vessel registries, catch and effort. The inventory is comprised mostly of artisanal fisheries statistics but there are statistics for some industrial fisheries and one semi-industrial fishery.

Datasets still need to be identified for Zanzibar which was not represented at the meeting. Zanzibar has a specific fisheries statistics system and the participant from Mainland Tanzania will assist in recuperating these datasets. The Regional Coordinator for Component 1 will also assist in this respect. Historical data on traditional fisheries of Madagascar, are still to be inventoried and recuperated.

Country	Name of fisheries (Dataset)	Type of fishery	Number of statistical table
COM	Artisanal fishery	PA	3
FRA	Pêche artisanale et industrielle de la Réunion	PA&PI	3
KEN	Industrial fishery	PI	1
	Sport Fishing	SF	1
	Semi-Industrial shrimp trawling fishery	PSI	3
	Artisanal Fishery	PA	2
MDG	Note conjoncturelle sur la pêche industrielle et artisanale crevette	PA&PI	3
	Pêche artisanale aux poissons	PA	2
	Pêche crevette industrielle et artisanale	PA&PI	3
	Pêche industrielle aux poissons	PI	2
	Pêche traditionnelle aux langoustes	PT	3
MOZ	Artisanal Fishery	PA	3
	Industrial shallow-water shrimp fishery	PI	3
	Semi industrial line fishing	PSI	3
MUS	Fish Aggregating Devices fishery	PA	3
	Coastal Fishery	PA	4
	Semi industrial Bank Fishery	PSI	3
SYC	Artisanal Fishery	PA	3
	Industrial long line fishery	PI	3
	Lobster Fishery	PA	3
	Sea Cucumber Fishery	PA	3
	Semi Industrial long line fishery	PSI	3
TZA	Tanzanian Artisanal Fishery	PA	2
	Tanzanian Industrial fishery	PI	2
ZAF	KZN Industrial fishery	PI	3
Number of Fisheries and Statitsical Tables		25	67

Country	Artisanal	Industrial	Artisanal and Industrial	Semi industrial	Traditional	Sport	Total
COM	3						3
KEN	2	1		3		1	7
MDG	2	5	3		3		13
MOZ	3	3		3			9
MUS	7			3			10
REU			3				3
TZA	2	2					4
ZAF		3					3
SYC	9	3		3			15
Total	28	17	6	12	3	1	67

3. STATISTICAL TABLE PREPARATION

A guide for preparation of the data was elaborated and given to the participants along with an associated Excel file to use for gathering all the information into the correct format needed before introduction of the datasets into StatBase v3.0.

Alain Damiano presented an example of some vessel registry data and explained how to prepare this type of data. The procedure consists of transforming individual measures of vessel length, power and capacity into the predetermined categories of the corresponding SWIOFP reference nomenclature and then aggregating the number of vessels into the combinations of categories. An Excel spreadsheet with a macro to automatically transform the vessel specifications to the SWIOFP categories was provided to assist in this process. For homogeneity's sake, it was decided that the power of the vessel engines will be expressed only in kilowatts (kW) and the vessel lengths in meters as these are the units used in the nomenclature. As it is not possible to standardize capacity measures, their original units will be kept and documented in metadata.

Datasets were prepared using a preparation excel spreadsheet that included: metadata, data, native nomenclatures and their correspondence to the SWIOFP reference nomenclature. The following modifications were decided for SWIOFP reference nomenclatures:

- Country: "Zanzibar" has been created with code EAZ.
- Maritime zone: The label for zone FAO 51.8 has been modified from "Mozambique" to "Mozambique and South Africa" since it includes parts of both these countries.
- Species categories: The nomenclature uses the ASFIS codes but, while this list is fairly comprehensive, there are some species or species groupings that occur or are used in the SWIOFP region that are not included in the list. A total of 15 new codes were therefore included to incorporate these additional species. The code consists of the letter "I" followed by two numerals to distinguish them from the ASFIS 3 alpha codes. The inclusions are:
 - o (I01) *Anguilliformes*
 - o (I02) *Argyrosomus spp*
 - o (I03) *Galeichthys spp*
 - o (I04) *Lutjanus sanguineus*
 - o (I05) *Muraenesox bagio*
 - o (I06) *Ovalipes iridescens*
 - o (I07) *Pagellus bellottii natalensis*
 - o (I08) *Penaeus indicus/Metapenaeus monoceros*
 - o (I09) *Polyamblyodon gibbosum*
 - o (I10) *Rhabdosargus spp*
 - o (I11) *Sepiidae*
 - o (I12) *Teuthida*
 - o (I13) *Velodona togata*

- (I14) *Zeus spp*
- (I15) Miscellaneous
- Gears: The ISSCFG classification of gears does not incorporate a “Mixed gears” category so this was included following the ISSCFG logic of codification. The new nomenclature is:
 - Mixed gears (12.0.0)
 - Traps and lines (12.0.1)

4. INTEGRATION IN STATBASE V3.0

Norbert Billet presented the preliminary interface of StatBase v3.0 and the assistant for integration of datasets. StatBase v3.0 was installed on a local server rather than connecting to the server at IRD due to the instability of the Internet connection in the KMFRI conference room. This solution was, however, not without problems either. Each national component coordinator was designated as national administrators for the SWIOFP/StatBase database and allocated rights that include insertion, modification and deletion of their own national datasets. A day and a half were dedicated to the introduction of identified and prepared datasets. Some problems concerning the use of periods and commas in numerical data were encountered but were adequately resolved. In addition, some difficulties were also encountered with the logic followed by the assistant but almost all countries completed the upload of at least one dataset providing enough experience to enable them to complete uploading all their datasets in the weeks following the WG.

5. SPECIFICATIONS OF STATBASE ATLAS FUNCTIONS

The next step of StatBase component concerns the conceptualisation and development of an Atlas that incorporates the available fisheries datasets. General specifications of this Atlas were discussed and the following decisions taken.

- Two levels of access in the StatBase/SWIOFP website will be made available:
 - Regional access providing access to the global list of datasets and to regional representations and descriptions of fisheries (maps, graphs, text, presentation of StatBase regional administrator, photo, links...)
 - National access providing access to national list of datasets and to national representations and description of fisheries (maps, graphs, text, presentation of StatBase national administrator, photos, links ...)
- For representation some indicators will be prioritized like number of boats/type/year/region, catch/species/gears/region, effort/gears/region. Suggestions will be considered and discussed once the datasets have all been included in StatBase v3.0.

6. UPDATING STATBASE/SWIOFP

Participants agreed that SWIOFP/StatBase is a very valuable database which should be updated annually with the most recent fisheries statistical data. A time-delay is inevitable for data inclusion due to national procedures in gathering, processing and validation of statistical data as each country has its own process and calendar of producing fisheries statistics. These delays are approximately:

- COM: no statistics produced presently.
- FRA: 6 months
- KEN: 9 months
- MAD: 6 months
- MAU: 12 months depending on the approval procedure

- MOZ: 18 months
- SEY: 6 months
- TAN: 12 months
- ZAF: 18 months

From the above information it appears that it is possible to update the database 18 months after the calendar year concerned. Thus statistical data for the year 2008 should be available for inclusion by June 2010 for all countries but some countries will be able to update their datasets earlier. Updating the database should be relatively easy as it will only incorporate the addition of one year's data unless any important changes occurred in the datasets. Deletion of datasets will only be permitted by the national administrators for the first 6 months (until June 2010) after which deletions will need to be requested from the regional database administrator. This is standard database practice which protects the integrity of the database.

Participants recommended a follow-up StatBase meeting after the trial period which ends in April 2010. This meeting will also provide the forum for discussions regarding the data atlas.

7. INSTALLATION AND MAINTENANCE

StatBase v3.0 needs some infrastructure and personnel for proper operation and maintenance. Infrastructure includes a server installed with Java and Postgres and a permanent Internet connection. Stability is a more important criterion than the speed of the connection when setting up the server. At present, the Internet connection at KMFRI does not appear suitably stable but it is foreseen that connectivity through a new fibre optic cable will become available in the first quarter of 2010. Connectivity will be made progressively available to users and testing on the suitability of the connectivity will be undertaken once the SWIOFP IT person has been appointed. A decision on the location of the server will be undertaken on the conclusion of the testing phase. In the interim, StatBase will be made available on the IRD server in Montpellier, France. The URL of SWIOFP/StatBase v3.0 is:

http://vmstatbase-dev.mpl.ird.fr/statbase_3

For any question please contact Norbert Billet at norbert.billet@ird.fr.

Ideally StatBase should be maintained by two persons: one specialized in computer science for server and database administration and the other from a fishery science background to provide thematic advice on fisheries statistics. Mr Rondolph Payet indicated that only one person is foreseen in this position in 2010 and the profile will be predominantly fishery science.

8. HOW TO INTEGRATE THESE TOOLS

Different tools are being designed or implemented in the framework of SWIOFP and Mr Rondolph Payet expressed concern about the diversity of databases and requested the working group to provide some advice on the issue of their integration. The bibliography will be managed through Endote, scientific survey data with the Nansis system, an observer database will be designed and StatBase will be used to collate fisheries statistics. It is foreseen that GeoNetwork will play a major role in the integration of these different tools through its function as a metadatabase. It will provide the means to search for available data on specific topics, particular species and/or particular geographical areas. Once a data source has been identified, the user will be guided to the specific data tool that manages that data (e.g. bibliography, survey, statistics ...) It will also indicate the physical locality of the data and the contact person/organisation in order to gain access to the data. . Geonetwork, or any other metadata manager, may therefore be seen as the main integration keystone of SWIOFP information system.

9. CONCLUSION

This meeting was a very important step in the progress of Component 1 and for SWIOFP/StatBase. Participation and organization were good. National participants are now able to integrate their own datasets in the system and keep StatBase updated. The development of the data atlas functions were specified and key issues in maintenance were discussed.

The follow actions need to be undertaken by the national component coordinators by the end of March 2010:

- Continue uploading fisheries statistics from the StatBase inventory onto the server
- Formulate suggestions for the data atlas functionality

The meeting was closed on Friday 11 December 2009 by Mr Rondolph Payet and Harrison Ong'anda.

ANNEX 1

SWIOFP/STATBASE WORKING GROUP N°3 7-11/12/2009, MOMBASA, KENYA

AGENDA

MONDAY 7

- Welcoming address, Organizing the session
- Actualization of the inventory
- The register dataset case

TUESDAY 8

- Metadata preparation
- Datasets preparation

WEDNESDAY 9

- Datasets preparation (following)

THURSDAY 10

- Integration of datasets in StatBase v3.0
- Visualization of datasets through StatBase v3.0

FRIDAY 11

- Specifications of the atlas functions
- Discussions around actualization of SWIOFP/StatBase
- Preparation of the installation and maintenance at KMFRI

SATURDAY 12

- Day left if additional work is needed for some participants

ANNEX 2

List of participants

**SWIOFP REGIONAL STATBASE WORKING GROUP MEETING HELD ON
7TH – 11TH DECEMBER, 2009 AT KMFRI CONFERENCE HALL, MOMBASA**

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