EWG1204 ToRs discussion
(20120522EJ)

ToR 1) To discuss the concept of "surplus", based on the definition given in UNCLOS and taking into account the specific context of:

1.1) shared stocks (e.g. small pelagic species on the Western African coast);

1.2) transitional periods of time, before having reached reference management points (e.g; how to consider the surplus if indicators of a specific fishery are still not at the management reference values agreed by fisheries policy makers and managers ?);

The issue with the computation of "surplus" is well described on UNCLOS and it can be boiled down to: 1) define MSY, 2) compute coastal state catches (C), 3) surplus is the difference between the two, S=MSY-C.

In Brussels during the STECF Spring plenary we've identified three problems with this formulation that should be considered:

(a) How well can MSY and partial catches be estimated, if at all possible (see 3 below).

(b) If the stock is over-exploited how can the transition phase be managed. Does the coastal state keeps the catches and third countries reduce their own ? does the coastal state and third countries reduce proportionally ? what if the coastal state catches are already above MSY ? The idea here is to present options and not so much to give advice, it's mainly a political problem.

(c) The notion that taking the surplus does not affect the coastal state. We may simulate some scenarios and try to get some insight into this subject. We need to have a set of clear questions we'd like to reply, e.g. if the third country takes its share before the coastal state starts fishing what will happen in terms of CPUE for the coastal state ?

JRC is developing an MSE with a biomass dynamic model on the management procedure that may help understand some of the insights of this definition. In particular we're interested on test the effect of underestimation of catches and poor estimates of MSY.

ToR 2) To discuss assessment models, indicators and management references points used for stocks of small pelagic and demersal species distributed in Western African Waters or in Waters of the Gulf of Guinea.

ICES did a very detailed report on stock assessment models, where it's described which data each model uses and which results it provides. For this task is a matter of adjusting the ICES report to the reality of CECAF in terms of stocks, data and human resources. I've contacted Steve Cadrin and Mark Dickey-Colas on the 16th of May, who's chairing the group working on the categorization, and they are happy to contribute (see mail transcript below).

> *Dear Steve and Mark,*
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> *I will chair a STECF meeting on the UNCLOS "surplus" concept and it's application on the CFP (see ToR below or at http://stecf.jrc.ec.europa.eu/web/stecf/ewg04). One of our tasks is to advice on stock assessment methods and my idea is to use the categorization you're preparing under SISAM and adjust it to the CECAF, GFCM realities.*
>
> *My problem is that I don't see it published and I'd like to reference it properly and give the credits to those who deserve them. How can we do it ?*

Best
EJ

Hi Ernesto:

[…] from my perspective, the SISAM categorization was developed to encourage appropriate application of methods, so we should welcome such references. As you wrote, it has not been published yet, but I suggest that you reference ICES Strategic Initiative on Stock Assessment Methods (SISAM) and the symposium website (http://ices.dk/iceswork/symposia/wcsam.asp) to credit the people involved and help advertise the symposium.

Thanks,
Steve

Another interesting result could be a recommendation on best practices to report stock assessment analysis. May be through such document we could help CECAF improving their reports.

ToR 3) To suggest possible methods to evaluate surplus values, depending on:
3.1) the type of data available
3.2) the type of assessment models used (e.g. such methods should distinguish between poor-data stocks and stocks where assessment would have been delivered using surplus production models or analytical models).

The real problem is not so much the method to estimate surplus (see 1) but the quality of the estimate. If MSY is not well estimated due to assessment uncertainty, or if catch of the coastal state is not well estimated do to poor statistics, what should be done ? This can be simulated and tested to get some insights on the impact uncertainties may have on the surplus estimate.

One major issue is the fact that often EU contracts include number of licensed vessels, not directly the surplus as tonnes. The share of the total catches that can be taken by the fleet may be variable and difficult to evaluate in advance, at the time contracts are made. MARE's expectations are that implementing e-logbooks will sort out the problem of effort/catch management. But there will always exist agreements based on effort, so the floor for discussion is open.

Another important issue are the long gaps between the provision of stock assessment and its use for management, *i.e.* the estimates provided may not be relevant for management anymore. In EU coastal fisheries there is timely machinery to provide estimates and to use these, but this may not be the case in all international forum where EU fleet operates.

Additionally there is the problem of the link between EU activity and other third country industrial fleets, this is in fact a management issue and MARE has been addressing the subject in the agreements. Check the EU Com on the external dimension of the CFP, reinforce transparency on the global fishing effort (http://ec.europa.eu/fisheries/reform/proposals/index_en.htm) to get more insights about it.

ToR 4) To deliver some first calculations, particularly for mixed FPAs of the Western African area.

DGMARE suggests we focus on *Sardinella aurita* and a demersal stock. However, the most important ones are shrimps and octopus, which may not be easily dealt with due to problematic data. The alternative is to focus on horse mackerel (*Trachurus trecae*).