



CCSBT-ESC/0509/10

## 9. Indonesian Catch Monitoring

### Purpose

To develop advice to the Extended Commission on the Indonesian catch monitoring program for consideration at CCSBT12.

### Discussion

The Extended Commission will be considering future financing of the Indonesian catch monitoring program at CCSBT12 in October 2005. Advice from the Extended Scientific Committee on the scientific need and structure of the program is required to inform discussion by the Extended Commission.

The latest scientific advice on the Indonesian catch monitoring program was provided from the 9<sup>th</sup> Meeting of the Scientific Committee in September 2004. That advice was:

“The meeting agreed that the data resulting from this monitoring program were essential to understanding the impact of the Indonesian fishery on the SBT spawning ground, and providing assessment inputs on the adult (spawner) component of the stock. Sampling at Indonesian ports was also providing the main source of otoliths for determination of age-at-length and age composition of the adult stock.

“The ESC noted that various shortcomings remained in data collected from Indonesian fisheries, and that improvements were required to facilitate separation of changes in catches from changes in CPUE indices. Australia noted that there is an ACIAR funded program under development by CSIRO and RIMF to evaluate additional observer records that may provide insights into these CPUE changes. The various current monitoring and data collection activities provide different data:

- The IOTC / RIMF / CSIRO / OFCF program is adequate for providing catch and size data.
- The IOTC program does not collect otoliths, but these have been collected by CSIRO / RIMF.

- Neither of these current activities provides adequate information on changes in fleet dynamics and fishing patterns to understand the relationship between recent changes in catch and CPUE.

“It was recognised that Indonesia does have the capacity to continue these activities, in terms of trained and experienced port samplers. However, there are serious concerns that monitoring will not continue or may produce inadequate data if external funding sources are withdrawn. The ESC specifically considered the importance of Indonesian monitoring data to the SBT assessment and management process, and what would be lost to the process if monitoring were to discontinue. The table below summarizes the key outputs from the monitoring and their role in SBT stock assessments:

“Regarding the evaluation of what CCSBT would lose if the Indonesian monitoring were to be discontinued, or downgraded, the ESC noted that the major impacts of this would be:

- As the vast majority (>95%) of catch taken by CCSBT members is of sub adult fish, the CCSBT would have no reliable information on the size and age composition of the SBT spawning stock with which to gauge the impact of current and future management measures on the spawning stock composition;
- There would be limited or no information on removals from the spawning stock by the Indonesian fishery. Catch levels in this fishery over the last ten years have been between 300-2500 t. At the estimated current spawning stock biomass this level of fluctuation in removals has the potential to appreciably affect the accuracy of stock assessments;
- The CCSBT would have limited ability to validate the catch by Indonesia against any quota agreed as a national allocation;
- Lack of monitoring would prevent assessment of changes in operations of the Indonesian fleet and foreign fleets operating under the Indonesian flag;
- Lack of information on age structure of the SBT catch as a direct input into the stock assessment would induce increase uncertainty in estimated recent changes in the spawning stock and predictions about impact of future catches;
- Lack of data for estimating the age at maturity and relative spawning potential and possible changes in these over time;
- A break in the continuity of size/age monitoring would significantly compromise the tracking of cohorts recently recruited into the spawning stock, cohorts that will likely be the principal source of recruits into the future (representation of the 70’s and 80’s cohorts is very low); and

- Termination of this program would result in loss of accumulated experience and infrastructure in Indonesia necessary for collecting this information.

“The ESC therefore considers the continuation of monitoring activities in Indonesia is an essential element of the CCSBT SRP catch characterisation.

“Regarding responsibility for such monitoring, the ESC noted the importance of collecting information on all tuna species in the Indonesian fishery, particularly in the light of recent Indonesian SBT catch declines and indications of shifts in targeting to yellowfin or bigeye.”

The Extended Scientific Committee is invited to consider whether this advice should be updated or amended in the light of developments over the last twelve months.

**Prepared by the Secretariat**