

Comprehensive resource assessment and associated research for socio-economically sustainable small pelagic fish fisheries in the dynamic ecosystem along northwestern African coast of the Atlantic Ocean

Naoki Tojo*, Azeddine Ramzi**, Tadanori Fujino**, Shunji Sugiyama*, Kazushi Miyashita***

*JICA

**Institut National de Recherche Halieutique

***Hokkaido University

Abstract

The Northwestern African coast of the Atlantic Ocean is the one of the most productive coastal areas in the world's oceans. Small pelagic fishes, sustaining more than 80% of the Moroccan fisheries, highly depend on the productivity of the Canary Current and enhanced coastal upwelling by seasonal winds. On the other hand, the unique spatio-temporal dynamics of the environment in the area drives the uncertainty of these fishing targets with high dependency upon the surrounding. Since July 2010, "Capacity development of fisheries resource monitoring for sustainable management of small pelagic resources" has been progressing by Institut National de Recherche Halieutique (INRH), Morocco and Japan International Cooperation Agency (JICA). In this project, scientifically collected data using reinforced acoustic technology will be analyzed with the supplemental information affecting the small pelagic resources, such as fisheries parameters and regional/global environmental indices. Socio-economic consequences are expected to be taken into consideration in the assessment and associated analysis process. Experiments to seek practical indices based on the ecology of target fishes have been conducted based on the consensus in the data and information sharing among scientific sectors. Through the classic cycles of scientific researches, project members aimed to attain the objectives while improving the capacity of the resource monitoring and assessment. From a, "comprehensive-approach" perspective, dynamics of stocks and the socio-economic consequences are being incorporated for the Moroccan and regional sustainable resource allocation. In this presentation, project activities will be presented with the part of results using spatio-temporal modeling.