

IMPLEMENTATION OF THE BRAZILIAN NATIONAL PLAN OF ACTION FOR THE CONSERVATION OF ALBATROSSES AND PETRELS NPOA-SEABIRD/BRAZIL

Tatiana Neves¹, Patricia L. Mancini¹, Leandro Bugoni^{1,2},
Luiz Eduardo Bonilha³, Onildo J. Marini-Filho⁴

SUMMARY

Brazil is close to ratifying the Agreement on the Conservation of Albatrosses and Petrels-ACAP. As a signatory nation to the treaty, Brazil held the Second Meeting of the ACAP Advisory Committee in Brasilia, 5-8 June 2006, when IBAMA (Brazilian Institute of Environment and Natural Renewable Resources) announced the launching of the NPOA-Seabirds/Brazil. The NPOA aims to reduce seabird bycatch in Brazil and to assure the viability of Procellariiformes' breeding colonies within Brazilian territorial boundaries. Actions already being developed to achieve these goals include research on seabird bycatch and development of new technologies to avoid incidental caught seabird. Educating fishermen in order to implement fisheries mitigation measures are also planned. Incentives such as certification processes are currently under evaluation. To implement the NPOA, the Brazilian government initiated partnerships between SEAP/PR (Special Secretariat of Aquiculture and Fisheries of the Presidency of the Republic) and two non-governmental organizations (Projeto Albatroz and NEMA). These partnerships are promoting tests on mitigations measures and awareness in the fishing sector about fisheries practices compatible with seabird conservation. Also, a partnership between Projeto Albatroz, BirdLife International and Save-Brazil (BirdLife's partner in Brazil), has been established to develop the Albatross Task Force project in Brazil, which aims to encourage the introduction of mitigation measures in the Brazilian longline fleet through an educational approach.

RESUME

Le Brésil est sur le point de ratifier l'Accord sur la conservation des Albatros et des Pétrels (ACAP). En tant que nation signataire du traité, le Brésil a tenu la deuxième réunion du Comité consultatif de l'ACAP à Brasilia, du 5 au 8 juin 2006, lorsque IBAMA (Institut Brésilien de l'Environnement et des Ressources Renouvelables Naturelles) a annoncé le lancement du NPOA-Oiseaux der mer/Brésil. Le NPOA vise à réduire les prises accessoires d'oiseaux marins au Brésil et à garantir la viabilité des colonies d'élevage des Procellariiformes à l'intérieur des frontières territoriales brésiliennes. Les mesures déjà mises au point pour atteindre ces buts comprennent la recherche sur les prises accessoires d'oiseaux marins et le développement de nouvelles technologies visant à éviter les captures accidentelles d'oiseaux marins. Il est également prévu de dispenser une formation aux pêcheurs afin de mettre en œuvre des mesures d'atténuation au sein des pêcheries. Des encouragements, tels que les processus de certification, sont actuellement en évaluation. Afin de mettre en œuvre le NPOA, le Gouvernement brésilien a établi des partenariats entre SEAP/PR (Secrétariat spécial d'Aquaculture et Pêcheries de la Présidence de la République) et deux organisations non-gouvernementales (Projeto Albatroz et NEMA). Ces partenariats favorisent les essais sur les mesures d'atténuation et la prise de conscience dans le secteur de la pêche sur les pratiques des pêcheries compatibles avec la conservation des oiseaux marins. En outre, un partenariat entre le Projeto Albatroz, BirdLife International et Save-Brazil (partenaire de BirdLife au Brésil) a été établi afin de développer le projet du groupe de travail sur l'albatros au Brésil, lequel vise à

¹Projeto Albatroz, Av. Rei Alberto I, 450 sala 05, Ponta da Praia, Santos-SP, Brazil; tneves@projetoalbatroz.org.br.

²University of Glasgow.

³Special Secretariat of Aquiculture and Fisheries of the Presidency of the Republic-SEAP/PR.

⁴Brazilian Institute of the Environment and Natural Renewable Resources-IBAMA.

encourager l'introduction de mesures d'atténuation dans la flottille palangrière brésilienne par le biais d'une approche éducationnelle.

RESUMEN

Brasil está a punto de ratificar el Acuerdo sobre la Conservación de albatros y petreles-ACAP. Como nación firmante del tratado, Brasil acogió la segunda reunión del Comité consultivo de ACAP, en Brasilia, durante los días 5 a 8 de junio de 2006, momento en el que el IBAMA (Instituto Brasileño de Medio Ambiente y Recursos Naturales Renovables) anunció la puesta en marcha del NPOA-Aves marinas/Brasil. El NPOA tiene como objetivo reducir la captura fortuita de aves marinas en Brasil y garantizar la viabilidad de colonias de cría de Procellariiformes dentro de los límites territoriales brasileños. Las acciones que ya se han puesto en marcha para alcanzar estos objetivos son investigaciones sobre captura fortuita de aves marinas y desarrollo de nuevas tecnologías para evitar la captura incidental de aves marinas. También se prevé realizar sesiones de educación de los pescadores para implementar medidas de mitigación en las pesquerías. Actualmente se están evaluando los incentivos como procesos de certificación. Para implementar el NPOA, el Gobierno de Brasil inició una asociación entre la SEAP/PR (Secretaría Especial de Acuicultura y Pesquerías de la Presidencia de la República) y dos organizaciones no gubernamentales (Proyecto Albatros y NEMA). Estas asociaciones están fomentando pruebas de medidas de mitigación y la concienciación del sector pesquero sobre prácticas pesqueras compatibles con la conservación de aves marinas. También se ha desarrollado una asociación entre el Proyecto Albatros, BirdLife International y Save-Brazil (socio de BirdLife en Brasil) para desarrollar el proyecto del Grupo de trabajo sobre albatros en Brasil con el fin de impulsar la introducción de medidas de mitigación en la flota palangrera brasileña mediante un enfoque educativo.

KEYWORDS

Seabirds, by-catch, longline, mitigation measures

1. Introduction

Brazil adopted, voluntarily, to develop its own National Plan of Action for the Conservation of Albatrosses and Petrels. Since then, several sectors have been working to accomplish this important task, which involves governmental areas, private companies and Non-Governmental Organization (NGOs). Supported by FAO, the Projeto Albatroz and BirdLife International - Brazilian Programme investigated necessary actions for the conservation of albatross and petrel species within national territorial boundaries and their relationships with fisheries. The National Plan of Action for the Conservation of Albatrosses and Petrels – NPOA-Seabirds/Brazil was launched by IBAMA (Brazilian Institute of Environment and Natural Renewable Resources) during the Second Meeting of the ACAP (Agreement on the Conservation of Albatrosses and Petrels) Advisory Committee in Brasilia on 5-8 June 2006. The document was produced in Portuguese and English and is available at: <http://www.projetoalbatroz.org.br/planacap/PLANACAP%20INGLES.pdf>.

The main aim of the NPOA-Seabirds/Brazil is to compile information on all the results achieved in Brazil so far, in order to stimulate and support researches, management and governmental actions to reduce seabird bycatch in Brazil. The Plan presents information about the biology of this particular group, identifies the threats they are facing and proposes measures that need to be implemented, identifying potential agencies and establishing time scales and priorities for long term conservation of these species. The essential NPOA goals are to assure the viability of the Procellariiform breeding colonies within Brazilian territorial boundaries and to reduce the incidental capture of seabirds by longline fisheries to minimum levels, equal to or lower than 0.001 birds/1,000 hooks, This would make Brazil a significant agent for the conservation of albatrosses and petrels that occur inside and outside its territorial limits. The actions regarding seabird bycatch reduction as described in NPOA are based on four main approaches: establishing rules for the compulsory use of mitigation measures; creating incentives for the adoption of such measures; monitoring their adoption by consistent onboard observer programs and developing educational activities directed at offshore fishermen.

The implementation of these actions will be accomplished by partnerships between government and non-government institutions in Brazil and has the support of BirdLife International to develop the Albatross Task Force project in Brazil, together with Projeto Albatroz and Save-Brazil. The Albatross Task Force addresses the

effective introduction of mitigation measures on longline vessels. IBAMA is close to establishing a partnership with Projeto Albatroz for the implementation of actions in the fishing harbors and is concentrating efforts in preparing studies about research guidelines, compiling information about educational actions aimed at fishermen in Brazil, supporting the creation of laws to make mitigation measures mandatory and creating incentives such as a certification process for longline fishing products. In addition, Special Secretariat of Aquaculture and Fisheries of the Presidency of the Republic (SEAP/PR) through partnership with two non-governmental organizations (Projeto Albatroz and NEMA) is carrying out controlled tests on the effectiveness of mitigation measures for both seabird bycatch reduction and the maintenance of fishery production. SEAP/PR intends to use the results of these tests to support the creation of effective laws to implement these measures and to facilitate their adoption by the fishing community.

2. Implemented actions

The NPOA-Seabirds/Brazil consists of two parts: the first is an assessment of albatross and petrel species in Brazil, fisheries techniques that caught birds, incidental capture of seabirds by the domestic longline fleet and the available information on mitigation measures. The second part is the conservation plan which details the goals and actions for the conservation of species that breed in Brazil and of migratory species that interact with fisheries in Brazilian waters.

This report presents the objectives and actions that are being developed as a national effort for the NPOA implementation for species that interact with fisheries. These actions are divided into two sections: management and research as outlined below.

3. Management

Objective 1

To provide legal assistance for the mandatory use of mitigation measures aimed at avoiding the incidental capture of seabirds by the longline fishery.

- a) To develop and promulgate rules regulating the use of mitigation measures by all longlines vessels. The legislation must include combined methodologies for vessels that do not use artificial baits. Such measures must be mandatory for both national and leased fleets, and consider the specifics of each fishing method. For Pelagic Longline (swordfish and tuna) this comprises blue dye baits and night setting combined with one or more of the following measures: *toriline*, side setting, and configurations of the secondary lines which maximize its sinking and limitation of offal discharges.

Actions in preparation and/or already implemented

IBAMA prepared a report compiling information on the legislation required to implement the obligatory use of mitigation measures in longline fisheries. This will be discussed by the permanent Working Group for Bycatch issues that was created under IBAMA auspices.

Planned Actions

Bottom Longline – a combination of two or more of the following measures: thawed bait, configuration of the secondary lines to maximize its sinking, *torilines*, blue bait, side setting and limitation of discharges.

Actions in preparation and/or already implemented

*On 6 October 2005, the Normative Instruction No 37 from the Brazilian Environmental Ministry prohibited the fishery for Wreckfish, *Polyprion americanus*, which were caught by bottom longline, due to the 90% population decrease. Consequently, this particular fleet has been greatly reduced in Brazil (IBAMA, 2005).*

Planned Actions

Surface Longline for dolphinfish – an evaluation and description of the fishery was carried out and mitigation measure trials must be conducted.

Actions in preparation and/or already implemented

Studies about longline fleet are being developed by two NGOs in Brazil that are addressing seabirds and sea turtle bycatch (Projeto Albatroz and Projeto Tamar). In these studies it was observed that this fleet operates in a very wide area and use different fishing gears depending on fishing area, season and vessel size. Scientific

reports are being prepared in order to facilitate future management action, and a draft was presented during this CCAMLR meeting.

Planned Actions

- b) To incorporate into the policy for constructing new vessels in the national fleet the adoption of underwater setting or side setting for longline vessels, as well as the construction of a device for the discharge of fish waste at the opposite side to the longline setting.

Actions in preparation and/or already implemented

SEAP/PR has a National Program for the Improvement of the Brazilian Fishing Fleet (PROFOTA). The Technical and Environmental Manual of PROFOTA establishes the compulsory use of underwater setting devices for any new tuna longline vessel to be built with the support from that program. Moreover, the extent to which methods for the reduction of seabird by-catch are foreseen in the ship building project has been one of the qualifying criteria for the concession of financial support. The mitigation measures required will be explicitly included in the vessel fishing license, once it is built, so that enforcement will be made easier and more efficient. Up to now, 20 projects for the construction of tuna longliners have been approved, all of them include measures for the reduction of seabirds and/ or sea turtle by-catch.

Objective 2

To investigate incentives for the adoption of mitigation measures by certification and possibly increasing the value of fish sold by vessels using mitigation measures.

Planned Actions

- a) As an incentive for certified fisheries using mitigation measures, attributing to them a label with “seabird friendly” or “captured without harming seabirds”.

Actions in preparation and/or already implemented

IBAMA prepared a report which compiled information about the certification processes that will be discussed by the permanent Working Group for Bycatch issues that was created under IBAMA.

Objective 3

To implement a national onboard observer program using personnel trained in bycatch issues and with a legal recognition of its function. This provides a mechanism to control and evaluate the use of mitigation measures and their efficiency, according to the Observers on Board National Program – ProBordo, from SEAP/PR.

Planned Actions

- a) To legalize the observer onboard function, defining observer roles, obligations and activities.
Priority: essential

Actions in preparation and/or already implemented

SEAP/PR, in partnership with IBAMA, developed the Normative Instruction that establishes the National Program of Observers of Fishing Fleets- PROBORDO. This Normative Instruction, establishes the rules and procedures to be followed by the observers onboard fishing vessels under ProBordo.

Planned Actions

- b) To develop training courses for onboard observers and Onboard Observer Manual, that incorporate specific topics about the identification and sampling of seabirds and sea turtles, as well as the fishery certification process.

Actions in preparation and/or already implemented

Observer training courses promoted by SEAP will continue to be carried out, in cooperation with the Projeto Albatroz and Projeto Tamar, and will include aspects related to the bycatch of seabirds and sea turtles. During these courses, observers are trained in sea turtle and seabird species identification, techniques for the collection of biological samples and measures to reduce their incidental catches.

Planned Actions

- c) To promote institutional courses through SEAP/PR and IBAMA, where observers will be trained to accomplish work following the concept observer/educator. The observer’s credentials will be awarded by the SEAP/PR, seeking a legal recognition of its function.

Actions in preparation and/or already implemented

The ProBordo will make environmental education and training mandatory for all observers, as well as issues related to health and security on board.

Planned Actions

- d) To maintain a unified information system about the observers and the monitored fleet, along with the data collected by observers. SEAP/PR, through ProBordo partners and IBAMA, must conduct the management of the system. A unified and integrated information system must be developed.

Actions in preparation and/or already implemented

The Brazilian Observer Program has an Executive Management Board, consisting of the Director of Fisheries Development, of the Secretariat of Fisheries and Aquaculture, and by the Director of Fauna and Fisheries Research, of the Brazilian Institute for the Environment and Renewable Natural Resources - IBAMA. This Management Board has the responsibility of coordinating the collection and dissemination of data collected by the ProBordo.

Planned Actions

- e) To create the obligation to the fishermen to provide data on the incidental capture of species listed under 'threatened species official lists' (seabirds, sea turtles, cetaceans and others), including the retention of seabird carcasses, biological data and the dissemination of this material and information to research institutions/museums. The IBAMA, via COFAU, must receive the collected data.

Actions in preparation and/or already implemented

This action has been accomplished. The data on sea turtles have been available for one year and the seabird data have been collected more recently. However, to improve data collection, especially for seabirds that occur in several different species, the observer should be closed accompanied specially during the time where they are on land.

Planned Actions

- f) To create an intergovernmental body (committee or council) to address the requirements of the ProBordo on the Brazilian fishing fleet (national and leased vessels). This body must have representatives from IBAMA, MMA, SEAP/PR, fishing sectors, Working Group for the conservation of albatrosses and petrels, Conservation Projects, Scientific Committees for the management of fishing resources, Observers on board Association legally constituted, Research and Educational institutions and NGOs.

The role of such a body will be to help the SEAP/PR on the management of the subjects related to the ProBordo, with the following objectives:

- To evaluate strategies, priorities and monitoring actions on board and suggest changes when necessary.
- To support the definition of the operational strategies and the observer's qualifications, suggesting selection criteria.
- To analyze the data and information gathered and produce technical reports about the program.

Actions in preparation and/or already implemented

To accomplish this action SEAP/PR published a legislation at September 29th, 2006, to determine the lines of action to the elaboration and implementation of ProBordo, where is foreseen the creation of an advisory committee thought a further legislation.

Objective 4

To achieve 100% observer coverage of the longline leased fleet, as recommended by ProBordo, immediately after the publication of the NPOA-Seabirds, and a percentage of the national fleet coverage to be defined by the ProBordo Managing Committee.

- a) To develop rules defining the criteria and mechanisms for the selection of the national fishery that must be monitored through on board observers.

Observation: The forecasted actions in this item depend on the implementation of the ProBordo, as mentioned in Objective 3.

Actions in preparation and/or already implemented

A similar action has been adopted in the SEAP official notification n° 5, from 12/01/2005, where one of the criteria for the selection of vessels is the inclusion of mechanisms to reduce seabird and sea turtles incidental captures. These measures for pelagic longline vessels include the use of dyed baits and/or circle hooks in all Brazilian waters and toriline or underwater settings devices for the areas south of 20°S.

Objective 5

To evaluate the interaction between seabirds and fisheries, (other than those already documented above)

Planned Actions

- a) To carry out cruises with onboard observers to evaluate caught rates and determine species composition of seabird bycatch.
- b) To compile the information already obtained by the observers.
- c) Based upon the obtained information, propose management actions.

Actions in preparation and/or already implemented

Cruises with Projeto Albatroz observers on board are being developed for fishing vessel operations with different kinds of fishing gear. Very high capture rates have been found rising the national concern about the impact caused by trolling fisheries, handline, baitboats (lived baits) and different kinds of longline, including the surface longline for dolphinfish. The report compiling this information is in preparation.

Objective 6

To establish mechanisms for the development of educational activities and raising the awareness about the importance of the conservation of seabirds, especially for the longline fishery fishermen.

Planned Actions

- a) To develop environmental educational programs at the following action lines: along the following lines:
 - Creation of a specific environmental education methodology for all sectors involved in the longline fishery.

Actions in preparation and/or already implemented

This action was addressed through a Masters Degree thesis entitled "Awareness directed to fishermen for the reduction of seabird incidental capture in longline fisheries in Brazil", with the collaboration of Aveiro University, Portugal and Projeto Albatroz (a Brazilian Non Governmental Organization). The aim of this study is to characterize several aspects of two Brazilian longlines fleet, propose new methods of raising awareness and Educating fishermen towards their working environment and also propose the implementation of educational observers on board these vessels. As one of relevant results was the proposal to train observer to work in the Educational approach in order to stimulate fishermen for the adoption of mitigation measures.

Planned Actions

- Incentives for longline fishermen using mitigation measures;

Actions in preparation and/or already implemented

As explained in the action implemented under Objective 2 of NPOA, IBAMA prepared a report with compiled information about the certification processes and other incentive measures that will be discussed by the permanent WG for Bycatch issues created under IBAMA. Also, Projeto Albatroz is placing a sticker on the hulls of vessels to identify those that are using mitigation measures. This may encourage other vessels to also employ mitigation techniques. Also a partnership was established between Projeto Albatroz and BirdLife International to develop the Albatross Task Force project in Brazil, with the objective of introducing mitigation measures in the Brazilian longline fleet through an educational approach.

Planned Actions

- To promote the formal education and alphabetization among the fishermen from the fishing companies based at the main Brazilian ports;

- Improve skills of people working in fisheries, aiming to develop ethical values toward environmental conservation and citizenship;
- To promote the maritime mentality within the imaginary Brazilian collectiveness, amplifying the sight of the economical and social environmental potentials, alerting society for the necessity of a responsible and sharing administration of the areas and marine resources.

Actions in preparation and/or already implemented

Projeto Albatroz developed a project, which investigated social aspects of two Brazilian crews working in pelagic longline fisheries. Cruises were made in southeast Brazilian waters between May and August 2004. Daily working schedules, habits, as well as leisure habits while onboard were observed and registered. A questionnaire was designed to investigate the social and professional profile of each crew member. Overall, the results show a low formal education level among these professionals. The implementation of a new concept of a fisheries and biological observer is suggested. The Educational Observer could be used as an informal teacher focusing on environmental issue. This would allow improvement of educational levels, ethical values and awareness towards the surrounding environment among crews.

Research

Objective 1

To improve knowledge about critical areas related to seabird capture by longline fisheries, in which the use of complementary mitigation measures is required.

Actions

- a) To carry out research on the oceanic distribution of threatened albatrosses and petrels, identifying the preferred feeding areas where seabird concentrations occur, the dynamics involved in the concentration and the overlap with fishing grounds.

Actions in preparation and/or already implemented

A review of all bycatch data on longline fisheries in the Southwestern Atlantic Ocean with emphasis on the Spectacled Petrel has been produced by the project entitle “Assessing the Conservation Status of the Spectacled Petrel”, developed in conjunction by RSPB (Royal Society for the Protection of Birds) and UCT (University of Cape Town), FURG (Federal University of Rio Grande/Brazil) and Projeto Albatroz.

Analysis of seabird bycatch and abundance data collected during pelagic longlining from 2000-2005. Results were presented at the SCRS Plenary meeting of ICCAT, Madrid, October, 2nd to 6th and ad hoc WG IMAF of XXV CCAMLR Meeting, Hobart, October, 9th to 13th, both in 2006.

Submission for publication of a volume with the results of studies carried out under the EZZ Live Resources Program of the Brazilian Government about seabird distribution and abundance in southern Brazil, interaction of seabirds with pelagic and bottom longline fisheries and foraging behavior of four main species of Procellariiformes in Brazil (the black-browed and yellow-nosed albatross and the white-chinned and Spectacled Petrel).

Objective 2

To study biological aspects of seabirds and their vulnerability to fisheries.

Planned Actions

- a) To develop research programs about the ecology and feeding behavior of albatrosses and petrels, identifying, areas and seasons of occurrence and vulnerability to fisheries.

Actions in preparation and/or already implemented

A study on the abundance, bycatch and genetics of the spectacled petrel, Procellaria conspicillata, was carried out in cooperation with Projeto Albatroz/Brazil, Federal University of Rio Grande/Brazil, RSPB/UK, and University of Cape Town/South Africa.

A study on the trophic structure of the Procellariiformes community off Brazil, based on stable isotope signatures, was initiated in cooperation with the University of Glasgow and Projeto Albatroz.

A review of all historical records of albatrosses and petrels in Brazil was carried out as part of an MSc Thesis at Federal University of Rio Grande/Brazil – FURG. The study involved a review of data available in the

literature, museums in Brazil and other countries, data from birds collected dead on the beaches and it also addressed identification problems in some species.

Objective 3

To develop effective mitigation measures (or improve existing ones) evaluating their efficiency.

Planned Actions

a) To initiate research to develop simple mitigation measures which are easily applicable.

Actions in preparation and/or already implemented

SEAP/PR in partnership with Projeto Albatroz and NEMA (Nucleo de Educação e Monitoramento Ambiental) is testing mitigation measures on longline fishing vessels during 12 cruises with trained onboard observers with the intention of introducing these measures in fishing operations. Also, scientific cruises will be carried out in order to test torilines and blue dye baits in a controlled experiment in order to produce more accurate data. The results of this study will be available in a final report that will be published at the end of 2007.