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**Sixteenth Session of the IOC-FAO Intergovernmental Panel**

**on Harmful Algal Blooms**

Rome, 27-29 March 2023

Item 4.6.4 of the Provisional Agenda

**REPORT OF THE IOC REGIONAL WORKING GROUP ON HARMFUL ALGAL BLOOMS IN SOUTH AMERICA (FANSA)**

Members of IOC-FANSA group met virtually recently, 15 February 2023, during approximately two hours. The following members assembled to discuss the action plan of FANSA group for the next two-year term:

* Argentina: Nora Montoya (INIDEP)
* Brazil: Luiz Mafra Jr. (UFPR)
* Chile: Leonardo Guzman (IFOP)
* Ecuador: Gladys Torres (INOCAR)
* Peru: Sonia Sanchez (IMARPE)
* Uruguay: Ana Martinez (DINARA)

The group, which had not met presentially since October 2016 during the International Conference on Harmful Algae, in Brazil, recognized the lack of funding for in-person meetings as one of the main reasons for the inactivity over the past years. In fact, lack of funding has constituted an historical difficulty for sustaining this working group in full operation, as manifested in previous IPHAB meetings. In spite of the funding absence, several members are actually working together on different initiatives that did not require financial support (joint articles, proposals, etc.).

Future attempts to obtain financial support should also target:

* Organization of regional training sessions for graduate students, post-doc researchers and technical staff, including technicians from regional monitoring laboratories;
* Support for regional initiatives toward the incorporation, dissemination and validation of new technologies for toxin detection, and the application of remote sensing and modeling for early detection of HABs in South America.

In addition to regional initiatives, it is also imperative to encourage and support the participation of FANSA experts in global task teams and panels on key subjects such as biotoxin detection methods and regulatory limits, as well as taxonomy and ecology of harmful phytoplankton, and HAB dynamics.

The IOC-FANSA members agreed to maintain a regular agenda of virtual meetings every semester, and to strengthen on-line contact from now on. In the next virtual meeting, an expanded action plan for the 2023-2025 term should be elaborated.

The IOC-FANSA regional group will seek strategies to contribute towards achieving the United Nation’s Sustainable Development Goals for 2030, especially Goal 14 (“life below water”). In this sense, the group acknowledges the importance of initiatives like the technical cooperation projects and research programs coordinated by the International Atomic Energy Agency (IAEA) for strengthening the regional capacity related to oceanographic research. In particular, the IAEA’s regional project RLA7025, with participation of some countries members of FANSA and several counterparts from the Caribbean region, will support improving the regional capability and expertise for detecting HAB events and assessing coastal eutrophication using nuclear and isotopic techniques.

Despite the limited coordinated actions during the past years, HAB research has advanced considerably in South America, especially in Chile, with regular monitoring activities covering from 36° to 55° S, plus different groups established along the chilean coastline considering different scientific studies, but the biggest group of researchers is located in the northern area of the Chilean fjords. These groups have detected several blooms caused by species of *Alexandrium, Karenia, Heterosigma, Protoceratium, Dinophysis, Pseudo-nitzschia, Leptocylindrus, Chaetoceros*, among others; most of it along the fjords and channels. Successive episodes (more intense) of bivalve contamination with lipophilic toxins from *Dinophysis* in Argentina, Uruguay, Peru and southern Brazil; the high diversity of toxigenic benthic dinoflagellates in northeastern Brazil, and its possible spread to the south due to sea warming; whale and seabird mortality in Argentina associated with *Alexandrium;* massive fish kills by *Chattonella* and *Karenia*; a northward shift in *Alexandrium* blooms in southern Chile and northern Peru, as well as the registration of new species and emergent toxins all constitute increasing threats in the continent. As an example of integrated activity, a review article on Benthic HABs in South America, co-authored by IOC-FANSA members and other South American colleagues, is being prepared for submission in the upcoming weeks.

All members expressed their contentment and enthusiasm with the continuity of the IOC-FANSA group, and wished to express their gratitude to the IOC IPHAB for the encouragement and support.