JOINT STANDING COMMITTEE ON THE NATIONAL CAPITAL AND EXTERNAL TERRITORIES
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Canberra, 08 of September, 2017

Submission by the Embassy of Uruguay to Australia to the inquiry the adequacy of Australia's infrastructure assets and capability in Antarctica.

The Embassy of Uruguay very much welcomes the opportunity to make a submission to the inquiry into the adequacy of Australia's infrastructure assets and capability in Antarctica. This submission will only refer to the item 3 of the terms of reference: international engagement, including collaboration and resource sharing with other countries.

Uruguay has a long history of commitment research efforts on Antarctic Territory. In 1975, Uruguay's Department of Defence founded the Uruguayan Antarctic Institute (UAI), with the aim of developing scientific activities, technology and logistics in Antarctica in accordance with the Antarctic Treaty System. Uruguay became a Consultative State within the Antarctic Treaty System in 1985, and has run the Artigas Base on King George Island since 1984. The UAI conducts a research that covers a range of topics, including geophysics, biology, chemistry, meteorology, oceanography and mapping and continues to run multiple projects and activities on monitoring the ozone hole and the impact of waste and pollution on wildlife. At present, Uruguay has coordinated projects with Chile and Argentina and hopes to further promote collaborative efforts in Antarctica. We believe this comply to the Southern Hemisphere policies that both countries are looking into.

The Embassy of Uruguay, after consulting with the UAI, would like to propose the following cooperation items:

Item 1: Memorandum of Understanding between Uruguay and Australia for collaboration in Antarctic Research

Uruguay proposes further collaboration with Australia in Antarctic research, operations and science. Uruguay proposes a Uruguay-Australia Memorandum of Understanding (MOU) to promote cooperation and encourage commitment to the Antarctic Treaty System. Uruguay recommends that this MOU mirrors the framework of the China-Australia MOU on Cooperation in the Field of Antarctic and South Ocean Affairs, adopted by Australia, Tasmania and China in November 2014. Uruguay seeks to improve the rate and quality of Antarctic research through cooperation with Australia. It is worthy to note Uruguay's commitment to the Antarctic Treaty System following

the recent election of Albert Lluberas as Executive Secretary of the Antarctic Treaty, becoming the first Latin American to hold an executive position in a body of the Antarctic Treaty System.

Specifically, within the framework of this proposed memorandum, Uruguay recommends collaboration with Australia:

- To develop a national central database similar to the 'Australian Antarctic Data Centre', created by the Australian Government: https://data.aad.gov.au/;

- To facilitate the exchange of information and material in relation to tourism and bioprospecting in Antarctica;

- To facilitate the collaboration of information and material regarding the investigation of renewable energies in Antarctica;

- To collaborate with the UAI to develop an Antarctic Training Centre; and

- To collaborate with Uruguay in the investigation on the effects of environment change on key Antarctic and subantarctic terrestrial and coastal ecosystems, and to provide the scientific basis to guide enhanced environmental protection for these ecosystems (http://www.antarctica.gov.au/science/australian-antarctic-science-strategic-plan-201112-202021/theme-2).

To date, Uruguay has finds challenging to conduct an inspection per Article VII of the Antarctic Treaty and Article 14 of the Protocol on Environmental Protection, to due financial and logistical limitations. However, should there be collaboration of resources with Australia, Uruguay would be in a position to undertake an inspection, should they be designated to do so by the Antarctic Treaty Consultative Party.

Item 2: From East to West Initiative
The Embassy of Uruguay invites Australia to participate in the *From East to West* Initiative. This initiative seeks to foster international scientific and logistic collaboration in Antarctica. Utilising Uruguay's own transport capabilities, the initiative invites staff and scientists operating in East Antarctica to the Uruguayan bases in the West. This initiative takes into consideration the differing conditions in the Eastern and Western areas of Antarctica and seeks to minimise the Please see attached, annexure 1, which provides further details of the *From East to West* initiative.

Item 3: Project for the Mitigation of Mercury Pollution to Cetaceans in South America
The Embassy of Uruguay further invites Australia to participate in the 'Cetaceans and Health of the Oceans in South America: Banner Species as Bio-indicators of Mercury Pollution' Project. In accordance with articles 18, 19, 20 and 21 of the *Minamata Convention,* the aim of this project is to mitigate the effects of mercury pollution to cetaceans, and other marine ecosystems in South America, through the development and adoption of monitoring programs. The project seeks to further generate awareness

and social mobilisation to combat the impact of mercury pollution on living ecosystems. Please see attached, annexure 2, which provides further details of this project.

The Embassy of Uruguay avails itself of this opportunity to renew to the Join Standing Committee on the National Capital and External Territories the assurances of its highest consideration.

IP 125

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¨From East to West¨ initiative

IP 125

¨From East to West¨ initiative

Uruguay´s contribution to a broader knowledge of Antarctica by sharing own facilities intra regions

At ATCM XXXVII, Uruguay proposed to work towards a more inclusive and cooperative Antarctic Treaty System as an additional priority issue of the Multiyear Strategic Work Plan. Our objective was not only to achieve enhanced cooperation among Parties and the effective participation of all Parties in Antarctic Treaty Consultative Meetings, but also to propose and participate in collaborative scientific projects.

The results of surveys of National Antarctic Programs on international scientific and logistic collaboration in Antarctica reveal that a significant and high degree of international cooperation amongst programs is ongoing. A substantial part of this cooperation is based on regional activities performed by operators coordinating national program plans and support for scientific activities.

The ATCM, with the expert advice of the Scientific Committee on Antarctic Research (SCAR) and the Council of Managers of National Antarctic Programs (COMNAP), has adopted many measures on scientific cooperation and operational matters such as telecommunications, meteorology, transportation and other subjects of importance to Antarctic research programs.

Within this framework and considering that:

- there are different scientific and operational conditions in the Eastern and Western areas of Antarctica;
- in addition to the exchanges of information and discussions carried out at the ATCM aiming to promote collaboration in science, conducting field operations in all areas will provide further information for decision making;
- sharing facilities has been found to be a useful tool for reducing the human footprint on the environment and can contribute to a wider knowledge in science and operational matters of the Antarctic as a whole;

Uruguay has decided to contribute towards these goals by announcing and actively promoting the ***"From East to West" Initiative.***

This is intended to be done by inviting staff and scientists operating in East Antarctica to the Uruguayan Bases in West Antarctica, at no cost to the invited Party, with transportation offered from South America to the aforementioned facilities using Uruguay's own transport capabilities.

Lengths of stay, fields of research, associated logistical support and requirements will be arranged at the National Program level of the Parties involved.

Uruguay encourages other Parties to join this initiative and offer similar opportunities to visit and conduct scientific research at their own Antarctic facilities.

PROJECT CONCEPT NOTE

PCN No. CAF-01/17

Project Name	'Cetaceans and Health of the Oceans in South America: Banner Species as Bio-indicators of Mercury Pollution'
Region	South America
Countries	**Countries confirmed**: Oriental Republic of Uruguay Republic of Chile **Countries to be confirmed**: Federative Republic of Brazil Republic of Argentina Republic of Colombia
Implementing Agency	Development Bank of Latin America (CAF)
Sector (s)	Multi-sectorial
Subject (s)	Environment, Natural Resources, Marine Ecosystems, Marine Pollution, Banner Species of Global Importance, International Waters
Local Counterparts	GEF Operational Focal Point of Participating Countries Civil society organizations Scientific Research Centers / Laboratories
Implementation Period	4 years
Sources of Funding	Global Environment Facility - GEF (Multi-Focal) National Governments Civil society organizations Scientific Research Centers / Laboratories

I. CONTEXT OF THE PROJECT

According to the definition given by the GESAMP Group, and adopted by the international community in the United Nations Convention on the Law of the Sea (Art.1.4), "pollution of the marine environment means the introduction by man, directly or indirectly, of substances or energy in the marine environment, including estuaries, which produce or can produce harmful effects such as damage to living resources and to the marine life, hazards to human health, hindering maritime activities, including fishing and other legitimate uses of the sea, and deterioration of the quality of the sea water for its use and impairment of the places of leisure." Many of the world's coastal zones have been affected by pollutants, threatening biodiversity and the health of human populations, which has been studied to a greater or lesser extent in much of the northern hemisphere, but still with large knowledge gaps in the southern hemisphere. In Latin America and the Caribbean, pollution comes mainly from discharges from urbanized industrial and residential areas, followed by mines, and according to the UN Environment Program (former UNEP), they constitute a much-varied mix of substances and compounds representing between 90 and 95 percent of the pollution that reaches the sea indirectly. It was estimated (UNEP, 1999) that only 2% of the discharges are treated.

There is a great variety of substances that have the capacity to act as hormones and alter the functioning of the endocrine system, which can trigger adverse effects on exposed organisms. Among the substances with hormonal activity are chlorinated aromatic compounds (organochlorine pesticides and polychlorinated biphenyls), heavy metals and organometallic compounds. Many of them are considered global contaminants of the planet for their enormous ubiquity.

The best known toxic heavy metals are mercury, lead, cadmium and thallium. Also usually included is a semi-metal such as arsenic and, rarely, a non-metal like selenium. According to the UN, some 6000 tons of mercury enter the environment each year. Mercury is one of the most toxicologically studied elements, and industrial mercury contamination becomes a serious threat when it is released into the air, mainly by chemical plants, factories and other industries. The best estimates to date of human activities suggest that the amount of mercury in the atmosphere has doubled or tripled, and the atmospheric electrical charge is increasing by about 1.5 percent per year. This mercury then settles in oceans where it accumulates in the food chains that reach up to man.

The absorption route in marine vertebrates is through diet, which together with a) low rate of excretion and b) longevity, leads to the increase in accumulation. Marine mammals, and within them, cetaceans, present a series of physiological peculiarities that favor the accumulation of environmental contaminants. These animals have a large layer of hypodermic fat (blubber) that covers their entire body and efficiently stores lipophilic compounds. They also have a limited ability to metabolize and excrete these compounds. In addition, they are usually species that live many years in the marine environment, where the concentrations of these pollutants are increasing. So they can be exposed throughout their lives to high concentrations of contaminants,

from their conception through exposure in the uterus, during lactation and throughout their adult life through the marine food chain. Thus, marine mammals can be used as sentinels of environmental health related to mercury or indicators of the flow of pollutants in aquatic ecosystems. That is to say, as biological monitors of the alterations of the environmental characteristics from pollution. Bearing in mind that cetaceans and humans exhibit similar ecological roles in their consumption of marine organisms, they can therefore serve as monitors of the flow of mercury in aquatic food chains.

But in addition to their potential as bio-indicators for monitoring mercury, cetaceans are banner species of immeasurable social recognition as ambassadors of the oceans, and the risks and impacts of human activity on them awaken almost universal interest and concern, in the face of which authorities and important social actors are called to action to protect them from these risks and impacts. Not surprisingly, many of the countries of South America have programs and projects to monitor and conserve these species today. Therefore, the use of cetaceans as a key in a project of monitoring, awareness-raising and promotion of changes in public policies for the health of the oceans adds social value to the project and its products, *inter alia* facilitating the understanding of the problem of mercury in the environment and the need to adopt mitigation measures. Furthermore, when data from mercury contamination in cetaceans is complemented by data derived from coexisting contaminants from other species in the trophic chain, the basis for decision-making might become substantially more robust.

II. JUSTIFICATION OF THE PROJECT

The countries participating in this project have made significant global commitments as signatories to the Minamata Convention, joining efforts to address rising levels of mercury in the environment that cause irreversible, and often serious, effects on human health. The objectives of the project will directly address Articles 18, 19, 20 and 21 of the Minamata Convention, with considerations and activities addressing key aspects of the management of mercury pollution: information, public awareness and education; research, development and monitoring, implementation Plans; and Minamata Convention reports. Likewise, during the recent 65th meeting of the International Whaling Commission, Resolution IWC 66/14 Rev. 3, which was approved in plenary by member countries and those who had signed the Minamata Convention as well as the Declaration of Kumamoto, urged taking into consideration the articles of the aforementioned Convention and to initiate work to assess the impacts of mercury on all populations of whales and other cetaceans. Currently, with the exception of some isolated studies, the situation of mercury and whales in Latin America, especially in coastal populations, where the diet based on fish is much larger, is unknown, so it is extremely important to generate a regional baseline on the presence of mercury in aquatic ecosystems, and particularly in marine products. It is also important to note that the project contributes directly, as a regional contribution, to what is required by the United Nations Sustainable Development Goal 14 for the oceans.

The proposed project enhances the knowledge about mercury and its effects on the marine ecosystem through an emblematic figure among humans, which are cetaceans and in particular whales, species that are undisputed symbols of conservation and the health of the oceans. It promotes integration and collaborative work among the countries of the Pacific and Atlantic basin in South America that are important areas for mating, breeding and in some cases, feeding of

many species of cetaceans that are at the top of the marine food chain, able to bio-accumulate and bio-magnify pollutants, and thus cover large coastal and high seas working areas.

The project will also strengthen capacities in the scientific and technical sector, the public sector, local communities and the private sector in the monitoring, surveillance and observation of cetacean populations, reporting of stranding's, as well as the detection and analysis of mercury contamination in cetaceans. It will contribute to knowledge for the management of mercury through the non-lethal and non-extractive use of "cetacean resources" in the region, an option for managing that resource that is reaffirmed by the countries participating in the project and in the *Buenos Aires Group* in the International Whaling Commission, promoting practices of sampling that respect bioethical and animal welfare standards. Besides, the project will provide flexibility to extend such analyses to other species in the trophic chain and to widen mercury evaluation in other environmental frameworks of coastal and oceanic environments by participating countries of their own free will.

Project achievements will directly contribute to the technical, scientific and institutional capacity needed to achieve a reduction of mercury pollution in coastal and marine areas of South America, and a greater likelihood of compliance with commitments under the Minamata Convention by the participating countries.

III. PROPOSED OBJECTIVES

i. Promote the health of the marine ecosystem through the detection of mercury contamination in cetaceans as indicator species and evaluated vis-a-vis other, complementary contributions to regional monitoring, thus strengthening the capacities and regional integration of South American countries.

ii. Strengthen the capacity of countries in the Latin American region to establish the baseline of mercury pollution and other contaminants in marine environments as an input to taking plausible measurements and generating public policies on this environmental impact.

iii. Generate awareness and social mobilization for the protection of human health and the environment against mercury pollution through the use of banner species and the direct participation of regional civil society organizations.

iv. Contribute to the reduction of mercury pollution in the marine ecosystems of Latin America through the development and adoption of strategies and plans for the mitigation of mercury pollution.

IV. DESCRIPTION OF THE PROJECT: COMPONENTS AND EXPECTED RESULTS

Component 1 - Program to Monitor the Contamination of Cetaceans

This component of the project seeks to strengthen sampling activities to ensure the traceability and integrity of the scientific information required to establish the national and regional baseline of sources, quantities and distribution of mercury in cetacean species, with emphasis on the

consolidation of regional cooperation structures and programs. Using academic and civil society actors from the participating countries with experience and programs on cetacean research and common standardized methodologies, an extensive program of field sampling will be conducted of previously determined cetacean species, and samples taken to national laboratories. This will constitute, in addition to the product of the analyzes, a regional sample bank (with national physical sectionals in the participating countries) unpublished in the region and accessible to evaluations of contaminants beyond this initial project. The scientific information generated by the sampling will be evaluated with other contributions of sampling of regional and other biodata that permit the composition of an interpretive picture of mercury pollution in coastal and marine areas.

The main activities of the component include planning and implementing field trips / biopsy cruises (cruises to Antarctica, breeding and feeding areas, Abrolhos Archipelago, etc.) and monitoring of long stretches of coast for sampling from beachings; the acquisition of scientific equipment and materials; intercalibration exercises among the laboratories involved; the unification of cetacean reference material; analyzing reference material that is certified by the laboratories and the preparation of scientific reports and academic publications, with the latter being important inputs for project components 2 and 3.

Component 2 - Strengthening the Management of Mercury Pollution

This component aims to strengthen and create national capacities and exchange experiences, knowledge and technical information among peer scientific and research institutions. The component will also contribute to institutional strengthening through capacity building and inputs for decision-making in national and regional plans on mercury pollution in coastal and marine environments.

Sub-component A: Regional Technical Capacity Building - The activities in this sub-component will focus on increasing technical and information capacity to obtain recommendations that lead to effective interventions in the management and eventual elimination of the use of mercury. Personnel will be exchange among institutions, and technologies and experiences among participating countries, in order to build capacities, share best practices and standardize protocols, manuals and procedures for the collection and analysis of field data; technical personnel will be trained in the application of standardized protocols; and coordination workshops conducted for the participating countries' sampling and analysis teams (at least three workshops - 1. Sampling, 2. Analysis, and 3. Sampling and Analysis together). In addition, a bank of regional samples will be generated that is accessible to institutions in the region, whether or not they are participants in the project, for analysis of mercury and / or other pollutants.

Sub-Component B: Institutional Strengthening - This sub-component will conduct a baseline analysis of the countries' existing institutional capacity in the management of mercury pollution and the implementation of measures to strengthen the identified weaknesses. The institutional strengthening must be accompanied by national and regional strategies and policies that are harmonized at the regional level, regulations that strengthen the power and actions of the supervising authorities to harmonize the phasing out of the use of mercury, and training of regulatory and judicial body officials in the countries' commitments and obligations in the management of mercury. National policies and plans will be designed on the basis of project

results and will serve to facilitate the implementation of the Minamata Convention in the project's participating countries. Likewise, as an important element for the sustainability of the project initiatives and for the benefit of the region, inputs will be developed to establish an institutional framework that will serve as the countries' coordination mechanism in the management of the issue of mercury.

Component 3 - Knowledge Management

This component aims to achieve changes in the stakeholders of participating countries through the dissemination and societal ownership of the information generated. Social Communication and Environmental Education activities will be developed in each country and at the regional level through a Project Communication Plan, with the objective of raising awareness on the problem of mercury pollution, its causes and possible solutions. Based on these activities, the participating institutions will organize workshops, symposiums and roundtables in their respective countries with the most relevant players in the matter, in particular from the business sectors and public authorities, as well as community leaders, seeking to establish consensus on the actions needed to reduce mercury in coastal and marine environments.

The component will also include activities to systematize information generated by the project: workshops / dialogue meetings with leaders / industrial organizations involved in the mercury chain; implementation of the project's web page / web portal, including an interactive virtual forum on the topic mercury; implementation of a Regional Scientific Forum to present the monitoring results and interpretations, and the contribution of inputs in the form of project experiences to relevant forums with the CoPs of international agreements.

Component 4 - Regional Project Coordination and Management)

This component aims to coordinate project field activities in support of implementation, including its monitoring, advocacy and communications. The component will create coordination mechanisms at the different working levels and generate synergies among the different participants and implementers and among the various activities, products and results, facilitating coordination with national and regional authorities, the private sector, civil society and the local community.

Sub-component A: Regional Project Coordination and Management - The human and logistical resources required to carry out the project will be implemented through this sub-component. It considers obtaining the minimum amount of personnel and property required for the efficient management of the project, ensuring close coordination with project stakeholders in all the participating countries and at the regional level. It will generate qualitative and quantitative information that enables timely reporting of information on the implementation of project activities, thus helping to make management decisions in a timely manner.

Sub-component B: Monitoring and Evaluation - This sub-component aims to ensure the ongoing evaluation of project activities and progress according to GEF and CAF standards. To ensure the quality, reliability and transparency of the project, this sub-component will include measures that permit the analysis of the project's strategic objective, the definition of detailed goals and

indicators, the regular monitoring and evaluation procedures of the project during its implementation period, as well as the corresponding impact evaluations.

IV. FINANCING

An analysis of the project proposal and its thematic approach suggests that the project has a good chance of gaining funding from the Global Environment Facility (GEF) as a multi-focal project. According to GEF priority strategies, this project is aligned with the strategies of 'Chemicals & Waste (CW)' and 'International Waters (IW)', specifically with CW1-Program 1 and Program 2, CW 2-Program 6 and IW1 and IW3. A total GEF grant of ……is estimated for the four years of project implementation, with a 4:1 co-financing ratio estimated at a minimum of **US$ ……**.

V. PROJECT IMPLEMENTATION

CAF will have overall responsibility for implementing the project through a Regional Project Implementation Unit (UREP for its name in Spanish), which will be installed in one of the countries participating in the project. The UREP will coordinate implementation at the national level through an institution that will function as a national focal point in each participating country, and each of these institutions will identify a person with high technical capacity who will be responsible to act as the National Coordinator. Likewise, the project will have a Regional Steering Committee and a national technical advisory committee in each participating country, with representatives of civil society organizations, scientific and academic institutions, important analytical laboratories, national authorities as well as community and gender representation. The project will be implemented under the technical and administrative supervision of CAF / UREP, following the rules and procedures of CAF in financial management, for the acquisition of services, supplies and works, and respecting the environmental, social and gender safeguards established in the Manual of CAF / GEF Projects, always with the participation of the Regional Steering Committee.