



**COLLABORATION AGREEMENT
BETWEEN**

**CARNEGIE INSTITUTION OF WASHINGTON
AND**

COMISIÓN NACIONAL PARA EL CONOCIMIENTO Y USO DE LA BIODIVERSIDAD

Carnegie Institution of Washington (hereinafter referred to as "CARNEGIE INSTITUTION"). The Carnegie Institution is a private, non-profit organization (as specified by sections 501(c)(3) of the Internal Revenue Service (IRS) of US with a tax ID number: 53-0196523) that conducts basic research for the benefit of humanity with its head office located at 1530 P Street NW, Washington DC, 20005 USA.

Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (hereinafter referred to as "CONABIO") is a permanent interdepartmental commission of the government of Mexico, with head office located at Liga Periferico - Insurgentes Sur 4903, Delegación Tlalpan, Código postal 14010, Ciudad de Mexico. México

Herein refer to jointly and severally as the "Parties" and "Party", as the context may reasonably indicate or require.

RECOGNIZING THAT:

- a) The mission of CARNEGIE INSTITUTION is to encourage, in the broadest and most liberal manner, investigation, research, and discovery and the application of knowledge to the improvement of mankind.
- b) The mission of CONABIO is to promote, coordinate, support and carry out activities aimed at increasing knowledge of biodiversity and its conservation and sustainable use for the benefit of society; and
- c) The Parties acknowledge the benefits that each may derive from their collaboration hereunder towards the fulfilment of their respective missions.

THE PARTIES AGREE TO COLLABORATE UNDER THE FOLLOWING TERMS:

OBJECTIVE

The objective of this Collaboration Agreement is to establish the basis according to which the Parties will carry out the project titled "**Mapping and assessment of mangrove composition in Mexico: Linking high resolution airborne data to satellite monitoring for restoration and management**", hereafter called the PROJECT.

Specific objectives of the PROJECT

The Parties agree that the specific objectives of the project are as follows:

- a) Establish and test the ability to map the composition of mangrove species and other coastal properties using spectroscopy and Light Detection and Ranging (LiDAR) measurements collected by the CARNEGIE INSTITUTION of Washington and by its division the Carnegie Airborne Observatory; and
- b) If successful, use these data to inform and refine satellite monitoring and mapping already in progress by CONABIO.

PRINCIPLES OF COLLABORATION

1. The Parties will support each other in working toward the achievement of the Objective and the fulfilment of their respective missions, by building on elements of their respective programs and by pursuing effectiveness while avoiding unnecessary duplication of efforts.
2. To ensure the harmonious implementation of the Parties' collaboration and the successful achievement of the Objective of this Agreement, the Parties undertake actively to support each other in the performance of agreed tasks, activities and to take all reasonable steps to make the most effective use of the collaboration hereunder in furtherance of their respective missions.

ROLES AND RESPONSIBILITIES OF THE PARTIES

A) CONABIO shall undertake:

1. Collaborate with CARNEGIE to accomplish the PROJECT's objectives
2. Define with CARNEGIE the airborne data that will be collected during the flight campaign.
3. Plan with CARNEGIE the dates and location in México where the flight campaign will be carried out for the PROJECT.
4. Support CARNEGIE with the preparation of permissions, permits and approvals with the Mexican government, which are required for the PROJECT.
5. Deliver to INEGI (Instituto Nacional de Estadística y Geografía) LT05 Tapes of the airborne data collected 15 days after conclusion of the flights for recordkeeping purposes.
6. Interpret the information of the LT05 tapes that contain data collected during the flight campaign of the PROJECT in collaboration with CARNEGIE.
7. Support CARNEGIE with assistance and logistics for the PROJECT.
8. Collaborate with CARNEGIE INSTITUTION to integrate Carnegie Data (defined below) into CONABIO's satellite-based mangrove monitoring system.

B) CARNEGIE INSTITUTION shall undertake:

1. Coordinate the PROJECT in collaboration with CONABIO.
2. Define with CONABIO the airborne data that will be collected during the flight campaign.
3. Plan with CONABIO the dates and location in México where the flight campaign will be carried out for the PROJECT.
4. Process all the permits that are required by the Mexican government for the PROJECT with CONABIO's support.
5. Provide the airplane and the on-board laboratory to collect airborne data, in the areas previously agreed with CONABIO. Such on-board collection to be collected by Carnegie staff and their agents only.
6. Provide the crew of the plane and technical staff for flights
7. Process airborne data collected during the flight campaign.
8. Deliver to CONABIO, LT05 tapes that contain the Carnegie Data comprised of the aerial data in raw, format that was collected in the flight campaigns within 15 days following the flight campaign.
9. Publish results in peer-reviewed journal and facilitate outreach in collaboration with CONABIO.

Neither Party shall have any financial obligation to the other under this Collaboration Agreement.

Project Supervisors

The following persons have been named to supervise the commitments acquired by the Parties involved and to agree upon other aspects related to the PROJECT throughout its development:

On behalf of CARNEGIE INSTITUTION, Director of the CARNEGIE INSTITUTION Spectranomics Program and Project Coordinator for the Carnegie Airborne Observatory, Dr. Roberta Enders Martin, will act as the responsible person.

On behalf of CONABIO, the General Director of the Department of Geomatics Dr. Rainer Andreas Ressler, will act as the responsible person.

Data Use

CARNEGIE INSTITUTION authorizes CONABIO to use the information contained in the LT05 tapes generated by the campaign flight within the PROJECT. Any additional potential use of the data besides the joint PROJECT between CARNEGIE and CONABIO requires the prior written authorization of CARNEGIE.

Intellectual Property

CARNEGIE INSTITUTION owns Carnegie Data and owns all rights, title to and interests in any and all results from the PROJECT that are created, conceived or, reduced to practice or authored solely by the CARNEGIE INSTITUTION ("CARNEGIE INSTITUTION Research Results"). The CARNEGIE INSTITUTION and CONABIO will jointly own all rights, title to and interest in any and all results that are created, conceived of, reduced to practice or authored jointly by CARNEGIE INSTITUTION and CONABIO ("Joint Research Results").

Modifications

This Agreement will only be able to be modified by mutual agreement between the Parties.

Indemnification

The parties shall indemnify, hold and save harmless and defend at its own expense to its counterpart, their officers, agents, servants and employees from and against all suits, claims, demands and liability of any nature or kind, including costs and expenses, arising out of acts, omissions, negligence or misconduct of other Party or its officers, agents, servants, representatives or employees, in the performance of this Agreement. This requirement shall extend to claims or liabilities in the nature of workmen's compensation and to claims or liabilities arising out of the use of patented inventions or devices. The obligations under this paragraph do not lapse upon termination of this Agreement.

Term

This Agreement shall be deemed to be effective from the date of its signature by both Parties up to 31 December 2020.

Force Majeure

Force Majeure as used herein shall mean acts laws or regulations, industrial disturbances, civil disturbances, explosions, extreme weather events and any other similar event of equivalent force not caused by nor within the control of other Party and which neither Party is able to overcome. As soon as possible after the occurrence of any event constituting Force Majeure, and if any of the Parties is thereby rendered unable, wholly or in part, to perform its obligations and meet its

responsibilities under this Collaboration Agreement, shall give notice and full particulars thereof in writing to the other Party . In this event, the following provisions shall apply:

- (a) The obligations and responsibilities under this Agreement shall be suspended to the extent of its inability to perform them and for as long as such inability continues.
- (b) The term of this Collaboration Agreement shall be extended for a period equal to the period of suspension taking, however, into account any special conditions which may cause the time for completion of the PROJECT be different from the period of suspension.
- (c) If any of the Parties is rendered permanently unable, wholly or in part, by reason of Force Majeure, to perform its obligations and meet its responsibilities under this Collaboration Agreement, CONABIO or CARNEGIE INSTITUTION shall have the right to terminate this Agreement

No Agency

No legal partnership or agency is established by this Collaboration Agreement. Neither Party is authorized or empowered to act as an agent, employee, or representative of the other, nor transact business or incur obligations in the name of the other Party or for the account of the other Party. Neither Party shall be bound by any acts, representations, or conduct of the other.

Dispute Resolution

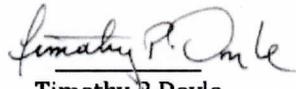
Amicable Settlement:

The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of, or relating to this Agreement or the breach, termination or invalidity thereof.

In witness whereof, the undersigned, being duly authorised to do so, have executed this Agreement, in English language by two (2) counterparts,

On behalf of the CARNEGIE INSTITUTION

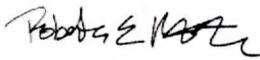
On behalf of CONABIO



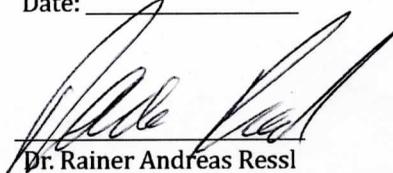
Timothy P. Doyle
Chief Operating Officer
Date: 6/18/2018



Dr. José Aristeo Sarukhán Kermez,
National Coordinator
Date: _____



Dr. Roberta Enders Martin
Director of Carnegie Spectranomics
Program and Project Coordinator for
Carnegie Airborne Observatory
Date: 14 June 2018



Dr. Rainer Andreas Ressler
General Director of the Department of
Geomatics
Date: 19/06/2018
June