



Al contestar por favor cite estos datos Radicado No.: 20165000007111 Fecha: 26-09-2016

Bogota D.C., September 26, 2016

RICHARD TIPPER Executive Chairman Ecometrica London, UK

Re: Forests 2020: collaborative programme to advance Earth Observation applications to forests

Dear Mr. Tipper,

Greetings from the Institute of Hydrology, Meteorology and Environmental Studies of Colombia (IDEAM). Through this Letter of Intent, I wish to express IDEAM's support for Ecometrica's application to the UK's International Partnership Programme (IPP), managed by the UK Space Agency (UKSA).

We understand that Ecometrica's collaborative forestry programme "Forests 2020", aims to advance the application of Earth Observation to improve forest governance, forest restoration and the sustainable livelihoods of forest dependent people, in line with current UK priorities in this sector. In this sense, we are particularly interested in participating in the following areas:

- Improving forest change detection methods from EO improving the accuracy and speed of national forest monitoring products by incorporating data from Sentinels and automating some procedures. This involves setting up calibration validation areas where new methods / processes could be tested. These efforts are likely to be focused on specific parts of the country where forest changes are difficult to estimate, such as small scale agriculture or forest degradation, or in areas where there is high cloud cover.
- Improving risk of deforestation/degradation, forest fires monitoring and priority mapping for restoration.
- Improving digital infrastructure for forest monitoring integrating the Colombian Data Cube with an Ecometrica Sentinel 1 data cube to provide additional data flows into forest change detection.

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|-------------|-----------------|---------------------|-----------------|-----------------|-------------|------------------------|
|             | Nov 16 – Mar 17 | Apr 17 – Mar 18     | Apr 18 – Mar 19 | Apr 19 – Mar 20 | Total costs | Requested<br>from IPP* |
| Salaries    | \$65.789        | \$160.421           | \$165.474       | \$169.263       | \$560.947   | \$360.421              |
| Overheads   | \$10.526        | \$ 42.342           | \$ 43.632       | \$ 44.921       | \$141.421   | \$141.421              |
| Travel      | \$ -            | \$ 26.316           | \$ 28.947       | \$ 31.579       | \$ 86.842   | \$ 86.842              |
| Materials   | \$31.579        | \$ 71.053           | \$ 71.053       | \$ 71.053       | \$244.737   | \$118.421              |
| Other costs | \$ -            | \$123.158           | \$123.158       | \$123.158       | \$369.474   | \$-                    |
| Total       | \$52.632        | \$211.711           | \$218.158       | \$224.605       | \$1.403.421 | \$707.105              |

# IDEAM Proposed Budget:

Calle 25D No. 96B - 70 Bogotá D.C. PBX (571) 3527160

Fax Server: 3075621 - 3527160 Opc.2

Línea Nacional 018000110012 - Pronóstico y Alertas (571) 3527180 Sede Puente Aranda: Calle 12 No 42B – 44 Bogotá D.C. PBX: 2681070 *www.ideam.gov.co* 









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This budget includes salary for eight (8) FT researcher, four (4) funded by IPP and four (4) funded by IDEAM, research costs including materials, fieldwork and one visit to the UK per year for the four (4) researchers.

We understand that Ecometrica and UKSA are not bound to accept the proposed activities or financial plan and that final budgets and activities will be subject to contract negotiations with UKSA.

We eagerly anticipate collaborating on this project.

Yours sincerely,

ÓMAR FRANCO TORR **General Director IDEAM** 

|                         | Nombre                                  | Cargo Finpa,   |
|-------------------------|---|--|
| Proyectó                | Pilar Lozano Rivera                     | Contratista SMBYC  |
| Revisó                  | Edersson Cabrera                        | Coordinador SMBYC  |
| Revisó                  | Diana Maria Quimbay Valencia            | Asesora Despecho Dirección General – Cooperación y Asuntos Internacionales 👔 🗸 🖊               |
| Aprobó                  | Maria Saralux Valbuena                  | Subdirectora de Ecosistemes e Información Ambiental Ourality (                                 |
| Los arriba firmantes de | claramos que hemos revisado el presente | documento y lo encontramos ajustado a las normas y disposiciones legales y/o técnicas vigentes |

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# PARTNER DETAILS

| Name of organization   | Institute of Hydrology, Meteorology and Environmental Studies (IDEAM) |  |  |  |  |
|--|---|--|--|--|--|
| Legal Status of Organization   | Governmental organization   |  |  |  |  |
| Address  | Calle 25D No. 96B – 70 Bogotá D.C.                                    |  |  |  |  |
| Website  | www.ideam.gov.co  |  |  |  |  |
| Main contact name  | Omar Franco Torres  |  |  |  |  |
| Email  | ofranco@ideam.gov.co  |  |  |  |  |
| Phone<br>And the state of the | +57(1) 3527160  |  |  |  |  |
| ADDITIONAL CONTACT FOR SPI   | ECIFIC ACTIVITIES:  |  |  |  |  |
| Contact 1 Name:  | Diana Quimbay Valencia  |  |  |  |  |
| Email  | dquimbay@ideam.gov.co   |  |  |  |  |
| Phone  | +57(1) 3527160 Ext. 1124  |  |  |  |  |
| Activity   | Cooperation and International Affairs Adviser                         |  |  |  |  |
| Contact 2 Name:  | María Saralux Valbuena  |  |  |  |  |
| Email  | mvalbuena@ideam.gov.co  |  |  |  |  |
| Phone  | +57(1) 3527160 Ext. 1700  |  |  |  |  |
| Activity   | Deputy Director for Ecosystem and Environmental Information           |  |  |  |  |
| Contact 3 Name:  | Edersson Cabrera  |  |  |  |  |
| Email  | ecabreram@ideam.gov.co  |  |  |  |  |
| Phone  | +57(1) 3527160 Ext. 1704  |  |  |  |  |
| Activity   | Head of Forest and Carbon Monitoring System                           |  |  |  |  |

# Description of organisation's background expertise and activities relevant to the project (up to 200 words):

IDEAM is a governmental institution ascribed to the Colombian Ministry of the Environment and Sustainable Development, which is in charge of producing and managing the scientific and technical information on the environment. IDEAM generates knowledge, produces reliable, consistent and timely information on the status and dynamics of natural resources and the environment, to facilitate the definition and settings environmental policies and decision-making by the public, private and the public sectors in general. The Forest and Carbon Monitoring System (SMBYC), leaded by IDEAM, begins at 2009 through the implementation of information systems and capacity building processes to reduce emissions from deforestation and forest degradation. Through these initiatives, were generated methodologies to establish periodic forest monitoring based on satellite digital image processing. In 2010 and 2011 distribution and changes forest maps were generated at scale of 1: 500.000 (2000 and 2007) and scale 1: 100.000 (1990, 2000, 2005 and 2010). Nowadays, change forest maps are generated systematically year by year at 1:100.000. In 2015, supported by CSIRO and NASA, IDEAM started the process of implementing a Data Cube, which is intending to manage big data for satellite imagery, and allow accessing and analyzing of this information.









IDEAM works with the University of the Andes implementing the first version of Landsat Data Cube, and also works with The Nature Conservancy (TNC, Colombian office) in the development of a spatially explicit tool for deforestation detection at local levels that will link the contribution of projects to reduce deforestation with Payments for Ecosystem Services (PES) in the Amazon region of Colombia.

For Forest 2020, we propose a cooperative work scheme led by IDEAM, and articulated with the academy and NGOs working in local areas (e.g. University of the Andes and/or The Nature Conservancy or other national partner to be defined).

# List of experts with 1 paragraph resume (max 200 words):

**Edersson Cabrera**: Forest Engineer with postgraduate studies in Remote Sensing and GIS, more than 14 years of work experience in monitoring ecosystems, mainly in forest. Experience and capacity for the geo-spatial analysis, mapping products, digital image processing of remote sensing and databases. Extensive professional experience in research and characterization of the country's ecosystems. Ability to coordinate interdisciplinary teams to schedule, plan, direct, manage, implement and evaluate in the areas of monitoring, management, utilization, management and ecology of natural forest. Author, co-author of scientific and technical publications associated with forest monitoring.

**Gustavo Galindo**: BSc. In Biologist and Postgraduate studies in Geographic Information Systems and Remote Sensing. Gustavo has experience of over 10 years in forest ecosystems monitoring and remote sensing for monitoring land and forests changes. In addition, he has expertise in monitoring carbon and forest ecosystems. Currently, he is leading the implementation of protocols to update information on forest changes and forest degradation; and to consolidate the official indicators on these issues, as support of projects for Reducing Emissions from Deforestation and Forest Degradation (REDD).He has participated as an author, for scientific and technical publications associated with forest monitoring.

**Pilar Lozano-Rivera**: BSc. In Geodesic and Cadastral Engineering and Master of Science in Geoinformation Science and Earth Observation with more than 10 years of experience in image processing for environmental monitoring.

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