



## Call for tender

### **Technical support for the project of “Regional Ecosystem Services Observatory on the Guiana Shield” ECOSEO aiming the development and use of methodologies enhancing the assessment of ecosystem services.**

**Client:** WWF France foundation – World Wildlife Fund

French Guiana office in Cayenne (Address: 2 avenue Gustave Charlery, 97334 Cayenne )

**Duration of contract:** 16 months

**Contract to be fulfilled on:** the Guiana Shield (French Guiana, Amapá, Suriname and Guyana)

**Maximum sum for this contract:** 190 000 € (any included tax)

This call for tender is valid for a period of 4 weeks, until 15.06.2018. The results of this call for tender will be announced publicly after analysis by the project technical committee in June 2018.

#### **DEADLINE OF DELIVERY OF THE PROPOSALS:**

15.06.2018 on midday (Cayenne local time)





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### **1. CONTEXT**

#### **1.1. Presentation of the executive of the service**

The Amazon biome is internationally recognised as a priority in terms of sustainable management because of the many services it provides in global terms (climate regulation, storage of 10% of the world’s carbon, hydrological cycles, etc.). In the northeast of Amazonia is the shield of the Guianas, one of the least disturbed forest zones in the world. The forests of the Guiana Shield contain approximately 10% of the planet’s freshwater reserves, absorb 340 million tonnes of CO2 every year (equivalent to half of the amount produced by France) and are home to a significant part of global biodiversity. They also have a rich cultural heritage, and are the home of numerous indigenous peoples, some of them isolated, whose way of life depends largely on resources provided by the ecosystems.

Like other regions of Amazonia, the Guianas territories are faced with the twin imperatives of preserving biodiversity and sustainable development in socioeconomic terms. These regions have enormous natural renewable wealth, which can serve as a lasting foundation on which socioeconomic structures can be developed. From this point of view, so that the most appropriate balance can be achieved, it is important to assemble the best possible information about the zones which provide the most important “ecosystem services”.

This concept of ecosystem services emerged at the end of the last century, based on initial assessments of the contribution made by the natural environment to well-being and to the economy. In 1997, for the first time, a scientific publication proposed a means of estimating the annual





contribution of ecosystem services to the global economy<sup>1</sup>. Subsequently, the *Millennium Ecosystem Assessment*<sup>2</sup> substantially contributed to the acceptance of this concept.

However, these ecosystem services are still not highly valued in the region, either in French Guiana or in the Guianas as a whole. This is particularly true of the cross-border regions, where various forms of interdependence may exist, without always being recognised.

In this context, the reinforcement of cooperative links on the Guiana Shield, in terms of our understanding of ecosystem services and methods of analysing them, can make it possible to provide a collective resource for decision-making, which will enable challenges to be shared on a transnational scale, consistent with the objectives of each of the policy-makers involved.

As provided by international conventions (the Aichi biodiversity targets under the Convention on Biological Diversity or CBD; the European Union's Biodiversity 2020 programme; and the United Nations' Sustainable Development Goals or SDG) the priorities from now until 2020 are to achieve a better understanding of ecosystem services, to prepare national ecosystem accounts, and to identify the relationship between biodiversity, the economy and human well-being.

However at present it is not always possible for informed decisions to be made, given the low level of understanding and valuing ecosystems and the tangible socio-economic benefits derived from them.

Thus, the ECOSEO project (Ecosystem Services Observatory) intention is, to put in place a transnational network or observatory, to support those bodies responsible for decision-making in respect of the Guiana Shield in reaching a better estimate of the wealth of the terrestrial ecosystems which they share, by producing collective data, and by emphasizing various links which connect good quality ecosystems with a good quality of life and cultural life, as well as links to the sustainable development of various sustainable socioeconomic activities.

To set an appropriate scale for this type of analysis and discussion, the territories benefitting from the project are Suriname, Guyana, the Brazilian state of Amapá, and French Guiana. The work will be carried out in partnership with the forestry and environmental services of these four territories (the "national focal points")<sup>3</sup> with the University of Hanover (the European Commission's lead university on these subjects); and the University of French Guiana, which will host a postgraduate student to work on this subject and ensure that its teams are aware of the results of the project.

By setting up a transnational observatory, the project is intended to ensure that the value of ecosystems is reflected in the process of decision-making and planning; and to foster a collective drive towards the sustainable management of the ecosystem services of the Guiana Shield.

<sup>1</sup> Costanza, R. et al., Nature 387, 1997, The value of the world's ecosystem services and natural capital., 253–260 pp

<sup>2</sup> Millenium ecosystem assessment: <http://www.millenniumassessment.org/>

<sup>3</sup> The national focal points will be our partners amongst the public services for forestry and for the environment in each of the four territories: The Guyana Forestry Commission – GFC (Guyana); StichtingvoorBosbeheer en Bostoezicht - SBB (Suriname); the Office National des Forêts - ONF (French Guiana); and the Secretaria de Estado do MeioAmbiente do Amapá - SEMA (Amapá) for Brazil.





## 1.2. Definition of needs

The objective of the project, in setting up an observatory, is to highlight and promote the real benefits provided by ecosystems, to allow transnational cooperation and the best collective strategy for protecting the main ecosystem services.

Within the context of this main objective, we will pursue the following two subordinate objectives:

- *To promote, on a transnational level, the tangible benefits produced by good management of natural capital and of ecosystem services, and the monetisation of some of them.*
- *To enable a joint transnational strategy to be put in place, to ensure the sustainable management of ecosystem services on the Guiana Shield.*

**In order to attain these objectives, we will expect the successful contractor to play a major role in terms of technical support with the following deliverables listed below:**

- Writing of a report on the state-of-the-art of the initiatives and stakeholders connected with the concepts of ecosystem service and renewable natural capital management in the region;
- Production of a first transnational map of natural cover and land use for the Guianas and Amapá - this database will be used, among other things, to extract sectoral data enhancing the update of maps, including the mapping of the impacts of gold activities for the period 2016- 2017;
- Elaboration of the first accounts of natural capital of ecosystems in the region based on a method supported by the Convention for Biological Diversity (ENCA<sup>4</sup> method);
- Support for the development of a regional strategy to protect and value the services provided by shared ecosystems in the 4 territories;

Those deliverables will be executed under the general direction of the project's leader, the WWF, French Guiana office in collaboration with all the project's technical partners: Hanover's university, University of French Guiana, forestry services, environmental services, WWF Guianas, WWF Germany and WWF Brazil. The development of a regional strategy for the preservation and enhancement of ecosystem services will be lead with the contributions of public institutions responsible for the management of the entire targeted region (in the case of French Guiana, the *Collectivité Territoriale de Guyane, Direction de l'Environnement, de l'Aménagement et du Logement* and the *Parc Amazonien de Guyane*).

The successful contractor is expected to have a noteworthy track record on the Guiana Shield in terms of the coordination of projects combining field missions with innovative technical work, and combining remote sensing with knowledge and sustainable management. of Amazon forest environments.

In the context of this project, it is important that the members of the partnership elaborate a shared vision of ecosystem services at a regional level, and the means to discuss, at the level of the four territories, the preparation of a joint roadmap to tackle the challenges of conserving ecosystem services. This being so, **the chosen contractor will engage with the national focal points (the forestry and environmental services of the four territories concerned)** to produce a coordinated analysis of land cover and land use. This project will also provide an update on human impact (in

<sup>4</sup> ENCA : Ecosystem Naturel Capital Account. More information can be found here : <https://www.cbd.int/doc/publications/cbd-ts-77-en.pdf>





particular, the impact of mineral extraction, distinguishing as far as possible between the effects of legal impacts and illegal impacts) at a transnational level, applying a standardised basis which the contractor will be responsible for developing, based on previous experiences.

Additionally, the partners will need a joint database to share data, reports, geographical and other information. Thus the contractor will contribute to acquire, produce and build this database.

Finally, the contractor will be responsible for producing a set of transnational geographical maps representing natural capital under an internationally-recognised methodology, thus positioning the Guiana Shield as a leading territory in terms of highlighting the importance of tropical and Amazonian forest ecosystems for the international community.



## 2. DESCRIPTION OF THE SERVICE

### 2.1. Deliverables expected

Period	Deliverable	Details of deliverable
July 2018 – August 2018	R1 - 1	<p><b>Inventory of existing data concerning ecosystem services and natural capital across the four territories of the project.</b></p> <ul style="list-style-type: none"> <li>Statistical and geographical database of raw data collected within the region and on a global scale on the themes of “ecosystem services” and “natural capital” starting from the reference year (2000) and until 2017. (A description of the architecture of the database, the sources of this data across the four territories, and the method of collecting the data shall be provided in the contractor’s technical proposal);</li> <li>Report analysis on the availability and quality of data, and recommendations for processing of existing data and the future production of information;</li> <li>Proposal for a data and information sharing agreement submitted to all the project partners who wish to have access to or supply information to this database. This data sharing agreement will cover the overall data and results from the ECOSEO project.</li> </ul>
July 2018 – November 2018	R1 - 2	<p><b>Gap analysis of the concepts of ecosystem services and natural capital over the Guiana Shield, including the survey of stakeholders and determining the extent of progress in the initiatives (CBD, EU, SDG) per territory.</b></p> <ul style="list-style-type: none"> <li>Report of presentation of stakeholders, past and present initiatives in the region and internationally, concerning the research and development and promotion of concepts of ecosystem services and natural capital. This deliverable will be accompanied by a SWOT analysis of the concept of ecosystem services on the Guiana Shield.</li> </ul>
August 2018 – October 2018	R3 - 5	<p><b>Participation in the organisation of a kick-off workshop to coordinate the preparation of a precise project schedule jointly with all the partners of the project (location: Paramaribo, Suriname)</b></p> <ul style="list-style-type: none"> <li>Elaboration of the event’s agenda by the successful contractor jointly with the ECOSEO project manager and the overall partners of the project;</li> <li>Organization and production of an activity report including the conclusions.</li> </ul>
July 2018 – March 2019	R3 - 6	<p><b>Production of the first trans-national map of land cover and land use for two different time series.</b></p> <ul style="list-style-type: none"> <li>Cartography of Land Use and Land Cover (LU/LC) in the four territories inspired from internationally-accepted methodological standards. The maps will be produced jointly, supplied in HD format and made available. The raw data (shapefiles and rasters) will be made available on the project’s cloud platform;</li> <li>Set up and animation of a specific remote training about innovative remote sensing methods useful for this deliverable in close collaboration with the national focal points (training material, webinars, tutorials and reporting) and other</li> </ul>



		potential technical and institutional partners.
September 2018 – March 2019	R3 - 7	<p><b>Production of updated maps of the gold mining impacts in the Guianas for the period 2016-2017.</b></p> <ul style="list-style-type: none"> <li>Update of regional maps of the impact of gold mining for the period 2016-2017 according to an already elaborated methodology, with eventual proposals for improvements;</li> <li>Report presenting the methodology and study results and produced with the project's partners;</li> <li>The maps will be supplied in HD format and the raw data (shapefiles and rasters) are made available on the project's cloud platform.</li> </ul>
December 2018 – February 2019	R3 - 8	<p><b>Participation to the organization of a workshop focused on the production of regional maps of land cover and land use, the evaluation of human impact and the modelling of changes in ecosystems.</b></p> <ul style="list-style-type: none"> <li>Elaboration of the event's agenda by the successful contractor jointly with the ECOSEO project manager and the overall partners of the project;</li> <li>Organization and production of an activity report including the conclusions.</li> </ul>
July 2018 – July 2019	R4 - 9	<p><b>Production of ecosystem accounts of natural capital (ENCA method) by processing data for two different time series, making it possible to produce all the necessary maps and indicators.</b></p> <ul style="list-style-type: none"> <li>Production of indicators (non-exhaustive list): ecosystem accounts of biomass / carbon, ecosystem accounts of water, accounts of the integrity of biodiversity and infrastructure, and finally an assessment of total ecosystem capacity;</li> <li>Production of associated cartography.</li> </ul>
February 2019 – June 2019	R5 - 11	<p><b>Preparation and presentation of a diagnostic workshop about the data produced on the concepts of natural capital and ecosystem services for the four territories of the project.</b></p> <ul style="list-style-type: none"> <li>Elaboration of the event's agenda by the successful contractor jointly with the ECOSEO project's leader and the overall partners of the project;</li> <li>Incorporation to the basic accounts of the ENCA method of qualitative data collected at the diagnostic workshop and update of the set of map produced. The data produced by the University of Hanover in French Guiana using the MAES method will be taken into account and included in the natural capital accounts;</li> <li>Update of the data (shapefiles, rasters, Excel files, presentations, database, etc) which will be supplied in HD format and made available to the partners on the project's cloud platform;</li> <li>Co-production with the ECOSEO project's leader, the project's partners and the institutions of the Guianas of a regional cooperation roadmap for the conservation and valorization of most important ecosystem services of the Guiana Shield;</li> <li>Final report and summary cartography of the regional accounts, incorporating quantitative and qualitative data on the state of health of the ecosystems of the two reference periods (general diagnosis, recommendations and roadmap).</li> </ul>







May 2019 – September 2019	R5 - 12	<p><b>Participation to the event of elaboration of a regional strategy for the conservation of ecosystem services in the Guiana Shield</b></p> <ul style="list-style-type: none"> <li>• Participation to the elaboration of a regional cooperation roadmap for the conservation of the most important ecosystems of the Guiana Shield;</li> <li>• Preparation of at least 4 scientific posters, presenting the works carried out across the whole Guiana Shield between the various forestry and environmental services (content and form of the posters to be approved jointly);</li> <li>• Establishment of a platform of the institutional stakeholders in charge of the management of ecosystems and ecosystem services.</li> </ul>
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## 2.2. Duration of contract

The service will last 16 months from the 1st of July 2018.

## 3. TECHNICAL EXECUTION

The technical assistance of the ECOSEO project will be composed by at least one person with a positive track record in the region covered by the project, in terms of both the sustainable management of ecosystems and production of scientific content, and also in the use of innovative tools for remote sensing (optical and radar satellite imaging, handling GIS data).

The successful contractor makes a commitment to implement the service according to the rules and the best way they can. The contractor will have to be capable, within the time limits allowed, of executing each of the deliverable with excellence, in association with all the partners and national focal points of the project, so as to reach the goals defined by the project ECOSEO.

The workshop's expenses as well as the mission expenses (accommodation, regional travel on a case by case basis, food) of the participants invited to this workshop project will be covered by the ECOSEO project's leader (except for *per diem* expenses).

The raw data used produce the deliverables (shapefiles, rasters, Excel files, database, etc.) will be made available on the project's cloud platform and produced using open source software and programs wherever possible. Maps will be provided in HD format and made available to partners.

## 4. METHODOLOGY AND PROCEDURES

The methodology of production of the deliverables expected by the project ECOSEO (including the projected timetable) as well as the ways to implement them are for the discretion of the candidates for this call for tender and will be the object of a technical notation on behalf of the technical committee of ECOSEO.

Selection criteria:

- Prior experience in regional cooperation with all the territories concerned with the project;
- Level of details provided for the different deliverables including budget elements;
- Quality of the team made available for this project (previous experience on similar projects, knowledge level about the Guiana Shield);







- Prior experience in the creation, sharing and trans-national valorization of remote sensing tools;
- Proved mastery of the ENCA/CBD methodology;
- Mastery of the languages of the cooperation area.

## 5. FOLLOW-UP AND CONTROL OF THE SERVICE

The follow-up and the control of the service will be supervised by the project's leader of ECOSEO.

## 6. DEADLINE OF DELIVERY OF THE PROPOSALS

The offers are to send at the latest on 15.06.2018 at midday (Cayenne local time), for the attention of the representative of WWF-France, bureau Guyane.

### For more information :

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Mail: [guyane@wwf.fr](mailto:guyane@wwf.fr) untitled "ECOSEO project"

