



Ministerio  
de Ganadería,  
Agricultura y Pesca



Ministerio  
de Ambiente

**REDD + UY**  
Reducción de emisiones por  
deforestación y degradación  
del bosque nativo

# REDD+ READINESS PACKAGE URUGUAY FOR THE FOREST CARBON FUND

October 2022

## Disclaimer

Uruguay prepared the Readiness Package in Spanish. The English translation is provided by the FCPF Facility Management Team for viewers' information.

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# ACRONYMS

AMRU	Association of Rural Women in Uruguay
ANFB	Native Trees Outside of Forests
AP	Protected Area
Bank	World Bank
BM	World Bank
BN	Native Forest
C	Carbon
CDN	Nationally Determined Contribution
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMNUCC	United Nations Framework Convention on Climate Change
CO <sub>2</sub>	Carbon dioxide
CONACHA	Council of the Charrúa Nation
COP	Conference of the Parties in the United Nations Climate Change Conference
DGF	General Forestry Directorate
DINABISE	National Directorate of Biodiversity and Ecosystem Services
DINACEA	National Directorate of Environmental Quality and Evaluation
DINAGUA	National Directorate of Waters
DINOT	National Directorate of Land Planning
DNCC	National Directorate of Climate Change
EEI	Invasive Alien Species
ENBN	National Strategy for Native Forests
ENREDD	National Strategy for the Reduction of Emissions by Deforestation and Degradation of Native Forests
FAO	Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
EF	Emission Factor
FREL	Forest Reference Emissions Level
FRL	Forest Reference Level
GHG	Greenhouse Gases
Ha	Hectare
IFN	National Forest Inventory
INIA	National Institute of Agricultural Research
IPCC	Intergovernmental Panel on Climate Change
LE	
LGPA	General Environmental Protection Law
LOTDS	Land Planning and Sustainable Development Law
MA	Ministry of Environment
MARC	Grievance and Conflict Resolution Mechanism
MGAP	Ministry of Livestock, Agriculture and Fisheries
MGAS	Environmental and Social Management Framework (ESMF by its acronym in English)
MVOT	Ministry of Housing and Land Planning
MRV	Monitoring, Reporting and Verification
ODS	Sustainable Development Goals

OFBN	Other Native Forest Formations
OPYPA	Livestock and Agricultural Planning and Policy Office
OSC	Civil Society Organization
PNCC	National Climate Change Policy
PO	
REDD+	Reducing Emissions from Deforestation and Forest Degradation
R-PP	Readiness Preparation Proposal
ROAM	Restoration Opportunities Assessment Methodology
SAT	Early Alert System
SESA	Strategic Environmental and Social Assessment
SFM	Structure From Motion
SIS	Safeguards Information System
SNAP	National System of Protected Areas
SNMF	National Forest Monitoring System
SNRCC	National Climate Change Response System
SSEE	Ecosystem Services
TLS	Terrestrial Laser Scanning
Tn	Tons
UGP	Project Management Unit

## I. Introduction

As part of the global efforts to mitigate climate change within forest areas, the United Nations Framework Convention on Climate Change (CMNUCC, by its acronym in Spanish) agreed upon a framework to drive political focus and positive incentives related to the reduction of emissions by deforestation and forest degradation, and the role of conservation, sustainable forest management and the increase of carbon stocks in developing countries, known as REDD+<sup>1</sup>.

The case of Uruguay is unique within the REDD+ framework, different from the majority of REDD+ countries. Uruguay is a country with low native forest coverage and these forests are protected by law, so there is minimal deforestation. The principal problem is associated with degradation processes and the opportunity for REDD+ in Uruguay lies within the increase of carbon stocks, restoration and sustainable management of the forests.

In 2016, Uruguay began to implement the donation from the Forest Carbon Fund to support preparation for REDD+. The Forest Carbon Partnership Facility (FCPF) put forth an evaluation process to measure a country's progress in preparing for REDD+, which has as a central element the participatory self-assessment of activities taken during this stage and the progress made toward the finalization of this phase.

The evaluations results must be compiled into a readiness package for REDD+ (R-Package), which must include a summary of the country's preparation process, a report on the self-evaluation on behalf of multiple interested parties and the results of it, as well as references to specific products of the process of preparation that could be used in the evaluation.

The readiness package and evaluation must have a national scope and cover all the basic preparation activities, independent of their funding sources, including the organization of REDD+ activities, the REDD+ readiness and national strategic consultation, the establishment of

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<sup>1</sup> Decision 1/CP.16 Paragraph 71 establishes the following general requirements for countries that want to implement REDD+: Develop an Action Plan or National REDD+ Strategy; establish national reference levels to know the current status of the balance of emissions related to deforestation and forest degradation; have a national monitoring, reporting and verification system (MRV); and a system to report the way in which the social and environmental safeguards are upheld.

reference levels and system monitoring and following, as well as those related to institutional arrangements, governance, and environmental and social safeguards.

Therefore, the purpose of this document is to report the status of REDD+ readiness in Uruguay by means of a summary of the most relevant aspects of the process, a summary of the principal results under each component, and to present the results of the participatory self-assessment.

## II. Summary of the REDD+ Readiness Process in Uruguay

Uruguay submitted a Readiness Plan Idea Note to **The Forest Carbon Partnership Facility (FCPF)** on January 31, 2013, in which it was looking for “full FCPF membership for the complete range of support, including **financial and technical support for preparation for REDD+, and to formulate a Readiness Preparation Proposal (R-PP)...**” (option iv of the Supplement of the Readiness Plan Idea Note in FCPF affiliation).

It should be noted that the process of REDD+ readiness in Uruguay started with the **Ministry of Housing, Land Planning and Environment (MVOTMA, by its acronym in Spanish)**, with the key participation of the **Ministry of Livestock, Agriculture and Fisheries (MGAP, by its acronym in Spanish)**. In 2020, the **Ministry of Environment (MA, by its acronym in Spanish)** was created <sup>2</sup> and the environmental responsibilities assigned by law to MVOTMA were transferred to the MA by the law that created it, including REDD+ (details of the national mechanisms of REDD+ management in the country are presented in the sub-component “1a. National Coordination Mechanisms of Project REDD+”).

In addition to the participation of the MA (former MVOTMA) and MGAP, during all stages of REDD+ Readiness (Figure 1) the country sought to involve stakeholders from different sectors of society, some of them connected to the country’s forested ecosystems (e.g., civil society, rural production societies, educational institutions, etc.), including groups self-identified as indigenous (details about the consultation processes are presented in the sub-component “1b: Consultations, Participation and Dissemination”).

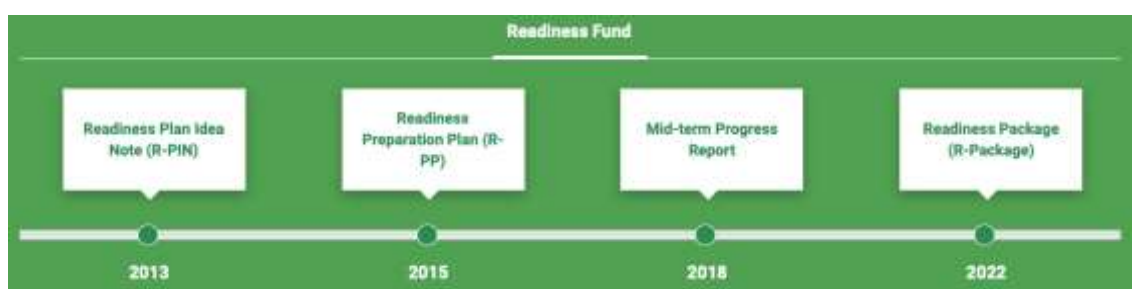


Figure 1 – Main advances of Uruguay in the Readiness Package for REDD+ FCPF

<sup>2</sup> Law No. 19.889/2020. Available at: <https://www.impo.com.uy/bases/leyes/19889-2020/291>

As a result of this inclusive and participatory process, the country achieved progress in the 4 (four) principal components supported by FCPF and the 8 (eight) subcomponents, described in detail in the following sections:

- Component 1: Readiness Organization and Consultation
  - 1a. National REDD+ Management Arrangements
  - 1b. Consultation, Participation, and Outreach
- Component 2: REDD+ Strategy Preparation
  - 2a: Assessment of Land Use, Land-Use Change Drivers, Forest Law, Policy and Governance
  - 2b: REDD+ Strategy Options
  - 2c: Implementation Framework
  - 2d: Social and Environmental Impacts
- Component 3: Reference Emissions Level/ Reference Levels
- Component 4: Monitoring Systems for Forests, and Safeguards
  - 4a: National Forest Monitoring System
  - 4b: Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards

## Component 1: Readiness Organization and Consultation

### 1a. National REDD+ Management Arrangements

*Corresponds to Indicators 1 to 5 of the FCPF Assessment Framework:*

All activities for the making of the REDD+ Readiness Package were co-implemented by the Ministry of Environment (MA) and the Ministry of Livestock, Agriculture and Fisheries (MGAP) in the framework of their respective responsibilities established by law, and as described below:

The **Ministry of Environment (MA)** is responsible for, by Law No. 19.889/2020<sup>3</sup> and Law No. 16.112/1990<sup>4</sup>, “the formulation, execution, supervision and assessment of national plans for protection of the environment and the instrumentation of the national policy on the subject”. Additionally, in accordance with what was established in Law No. 17.283/2000<sup>5</sup>, it is also responsible for “the exclusive coordination of environmental governance integrated by the State and of public entities in general”. In particular, “as national authority responsible for the effects of the instrumentation and application of the United Nations Framework Convention on Climate Change (CMNUCC, 1992), will establish the mitigation measures of the causes and adaptation to the consequences of climate change, in particular, will regulate greenhouse gas emissions”. And “when applicable, will coordinate with sufficient power the tasks and functions of other public and private entities that have relationships with those stipulated in this article”. The MA, through the **National Climate Change Directorate**, is the Focal Point of the CMNUCC and,

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<sup>3</sup> Available at: <https://www.impo.com.uy/bases/leyes-originales/19889-2020>

<sup>4</sup> Available at: <https://www.impo.com.uy/bases/leyes/16112-1990>

<sup>5</sup> Available at: <https://www.impo.com.uy/bases/leyes/17283-2000/27>



therefore, responsible for the following of the different commitments made by the country as Party to said Convention. The MA, through the DINACC, presides over the **National Climate Change Response System (SNRCC, by its acronym in Spanish)**<sup>6</sup>, coordinating the majority of the Working Groups that it is comprised of, among them the REDD+ Roundtable.

The **Ministry of Livestock, Agriculture and Fisheries (MGAP)**, for their part, through their **General Forest Directorate (DGF, by its acronym in Spanish)**, by Forest Law No. 15.939/87<sup>7</sup> is the national authority on forestry matters and leads the execution of the National Forest Policy, including the protection and management of the soils, native forests and plantations, and has within its power the native forest registry and management plans. At coordination level for forest management, the General Forest Directorate fulfills a core role with ministries, autonomous, decentralized and municipal entities.

For the purpose of implementing the REDD+ Readiness Preparation Proposal (R-PP), a specific Ministerial Agreement was signed on May 8 2015 by the MA (former MVOTMA) and the MGAP, in which the institutional agreement to monitor the project was signed, which was carried out by the designated policy coordination and technical designation (Policy Committee and Technical Committee). The coordination policy was carried out jointly and under the responsibility of the DGF of the MGAP as national authority on forestry matters and of the DINACC of the MA, as national environmental authority and in their capacity as UNFCCC Focal Point.

Additionally, a REDD+ Technical Committee was formed, composed of experts from the Forest Management and Assessment Division and Information Division of the DGF of the MGAP and the National Climate Change Directorate (DINACC) and the National Directorate of Biodiversity and Ecosystem Services (DINABISE, by its acronym in Spanish) of the MA. This Committee also acted in a broad manner integrating the technical coordination team of the Project and the Manager of the Project Management Unit (UGP, by its acronym in Spanish) of the MGAP to the Agricultural Unit of Sustainability and Climate Change of the Office of Agricultural Programming and Policies (OPYPA, by its acronym in Spanish) of the MGAP.

The fiduciary management of the project was under the direction of the MGAP UGP, who was in charge of the link with the BM technical team in these matters and of producing financial reports during the entire implementation of the readiness project. This allowed for taking advantage of the UGP's expertise in the management of World Bank projects, their human relations, and infrastructure. At the same time, the UGP strengthened their responsibilities regarding the administrative management of a project co-executed by two Ministries (MGAP and MA), since it was the first experience with a project with these characteristics. It is important to mention that Uruguay did not receive additional financing from any other source during the implementation of the REDD+ Readiness Preparation Proposal. This guaranteed a transparent, effective and efficient management of the donation funds (**Indicator 5**).

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<sup>6</sup> For more information about SNRCC, see: <https://www.gub.uy/ministerio-ambiente/tematica/sistema-nacional-respuesta-cambio-climatico-snrcc>

<sup>7</sup> Available at: <https://www.impo.com.uy/bases/leyes/15939-1987/17>

This institutional framework policy allowed for the coordinated advancement of different readiness project activities, with a clearly defined structure and mandate and with the necessary institutional support at the policy level, technical level, and institutional infrastructure level (**Indicators 1 and 2**). This framework will be the foundation that will guarantee the sustainability of the process in the different phases of the REDD+ Program in Uruguay. At the same time, the integration and mainstreaming of the REDD+ activities and actions in the framework of the environmental and productive policies of the country was facilitated by the fact that the Ministry of Environment and the Ministry of Livestock, Agriculture and Fisheries were those that led the implementation of the Readiness Preparation Proposal (**Indicators 3 and 4**). Nevertheless, in Appendix II an action plan proposal is presented to deepen the identification of inconsistencies between the sectoral policies and the ENREDD+ lines of action.

This has been, without a doubt, one of the strengths in the implementation of the REDD+ Uruguay Readiness Project, with the support of FCPF and the World Bank. It is expected that these institutional agreements are maintained and strengthened for the implementation stage.

Accordingly, Appendix II presents a proposed plan of action for the strengthening and redefining of the necessary institutional agreements for the future operationalization / implementation of the ENREDD+ action lines.

Furthermore, on December 7 2018 the REDD+ Roundtable was held, in the SNRCC framework, as a space for exchanges and participation from diverse civil society stakeholders, including academic, the private sector, and the government. More details about the REDD+ Roundtable are included in item 1.b. of this document.

Figure 2, below, presents a diagram with the institutional agreements implemented for the execution of the REDD+ Uruguay readiness proposal.

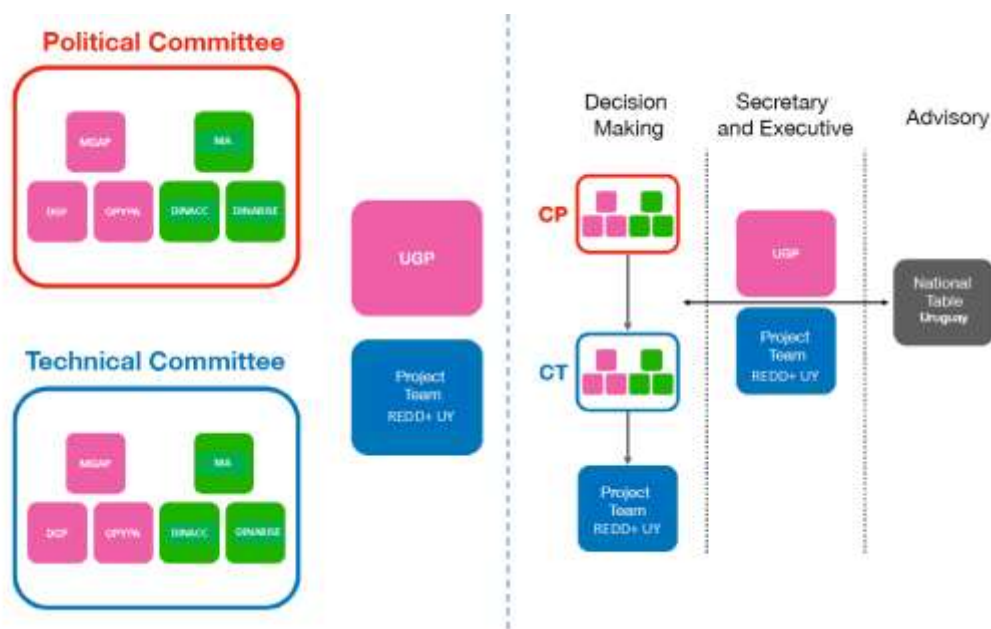


Figure 2 - REDD+ Uruguay Institutional Agreements

## *Grievance and Conflict Resolution Mechanism (MARC)*

### ***Corresponds to Indicator 6 of the FCPF Assessment Framework:***

As part of the transparency and access to information processes, a mechanism based upon the agreements and existing institutional channels was developed, which permits its adequate implementation (**Indicator 6**).

The goal of this procedure is to effectively manage, in accordance with national standards and addressing the corresponding international principles, potential complaints and conflicts that could arise from the future implementation of the REDD+ National Strategy.

The specific goals of the procedure, in agreement with the standards and national circumstances of Uruguay, and taking into consideration the requirements of FCPF, are:

- Identify and resolve implementation problems in a timely manner and cost effective way.
- Identify systemic problems.
- Contribute to the achievement of REDD+ goals and improve the results.
- Promote REDD+ accountability.
- Contribute to promoting the participation and empowerment of relevant stakeholder.

Its reach and responsibility will be of an administrative character. The REDD+ grievance and conflict management mechanism is envisioned as a group of services introduced in a coordinated way in the institutions related to REDD+, which will objectively determine the facts and will reach conclusions about them with the goal of making a final decision (resolution).

It is important to highlight that this mechanism is not meant to substitute the roles of judicial power nor other mechanisms of conflict resolution present in Uruguay, rather it seeks to complement them and contribute to better practices in matters related to dealing with complaints and resolution of conflicts in the realm of REDD+. The aggrieved parties will be able to direct their complaints and utilize all of the existing and relevant mechanisms according to the role of each one. It should be noted that, in case the conflicts are counter to a resolution issued by the government institutions in charge of REDD+ actions, the user must make use of the administrative resources regulated in the law<sup>8</sup>.

The MARC procedure is as presented in the following figure:

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<sup>8</sup> Administrative resources provided for in Articles 317 and 318 of the Constitution, Decreed Law No. 15.524 (available at: <https://www.impo.com.uy/bases/decretos-ley/15524-1984>) and Law No. 15.869 (available at: <https://www.impo.com.uy/bases/leyes/15869-1987>).

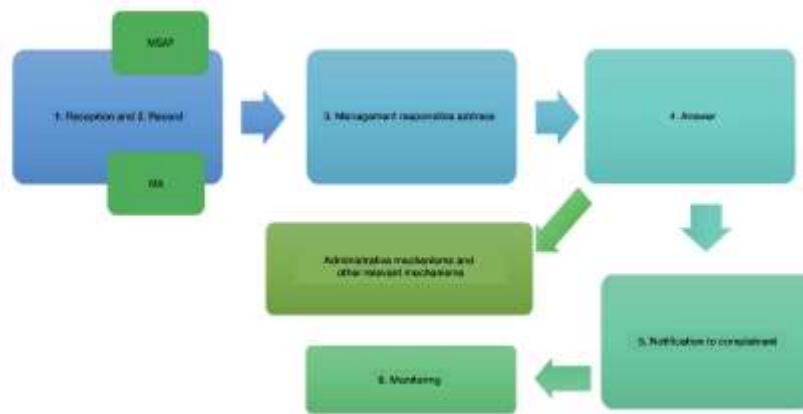


Figure 3 – REDD+ Uruguay's MARC Procedure MARC

Both MGAP and MA have a system for complaints on their websites, although the complaints can also be made in person or by telephone to the territorial leaders of each ministry. Complaints may be made anonymously, in which case they will not receive any information with regard to the process.

Upon receipt of the complaint, the system will consider information about the place of the complaint, the reason reported, in order to be able to redirect the complaint to the person responsible for its management, indicating its destination. Complaints related to native forest in rural areas, or related to the transportation of wood from the forest are channeled to the DGF responsible for that type of complaint situation. In the case of activities connected to the coastal zone, if the complaint is related to psammophile forest it handled within DGF and if it is related to psammophile scrub, it is directed to the Ministry of Environment. In the cases in which the complaint deals with a protected area, the National System of Protected Areas of MA is also included in the matter. In the case of activities in suburban areas, the complaint handled by the corresponding City Council (departmental government).

In each case, the investigation and results reached after the complaint process are communicated to the complainant; as long as they have provided their contact information. Each complaint possesses a code, which can be used to follow up on the complaint and its results.

The following describes the platforms currently in place for MARC:

a) Website method: the website complaint method is through the MGAP<sup>9</sup> and MA<sup>10</sup> platforms. In each page, complaints can be processed directly, and information to complete a telephone consultation is provided. In the case of MGAP, the matters are referred to the territorial level in the interior of the country.

<sup>9</sup> Available at: <https://www.gub.uy/tramites/denuncia-corta-bosque-nativo>

<sup>10</sup> Available at: <https://www.gub.uy/ministerio-ambiente/tramites-y-servicios/servicios/sistema-atencion-denuncias-ambientales>

b) Email: the complaint or request for information can also be sent directly to REDD+ by email. This email address is available on the MGAP and MA websites ([red@mgap.gub.uy](mailto:red@mgap.gub.uy)) and is answered by a member of the project technical team. The email sent to REDD+ will be channeled to the departments in both ministries, which enter it into the complaint system for follow up and response for each case. The DGF Forest Management Division of the MGAP also receives complaints through its email: [bosquenativo@mgap.gub.uy](mailto:bosquenativo@mgap.gub.uy)

c) Telephone method: complaints and requests for information can also be made by MGAP and MA telephone numbers for receiving complaints that will be used by the REDD+ mechanism, they are available on the MGAP and MA websites. The information gathered from the call will be utilized to complete a form, and a copy of the form will be sent to the complainant. Interested parties that have problems with writing can use this method which allows for greater access to the system, in order to submit a complaint and obtain a follow up on the complaint in the same way.

d) In-person method: MGAP has regional headquarters in Durazno, Tacuarembó, Paysandú and Rivera, in addition to Montevideo, where DGF employees serve the public in person. MA does not yet have this geographical spread, but it has in-person customer service for complaints in their offices in Montevideo (Galicia 1133) and hopes to incorporate regional offices in the City Councils across the country for the REDD+ implementation stage.

As of the completion of this document, no complaints that are directly related to the REDD+ process in Uruguay have been received.

The number of interventions undertaken by DGF, product of complaints made by different methods was 862 for the period 2000-2021, resulting in an annual average of 39 actions, with a maximum of 60 in 2013 and a minimum of 20 in 2018 and 2019.

## 1b: Consultation, Participation, and Outreach

*Corresponding to Indicators 7 to 10 in the FCPF Assessment Framework:*

### *Coordination Meetings and Institutional Dialogue*

It is important to note that both MGAP and MA have a vast track record of work based on participation at a national level for the development of their programs and policy instruments, both productive and environmental, combining resource conservation elements and ecosystem services. In the participation spaces of each ministry, different stakeholders from different sectors of society converge, some of whom are connected to the forested ecosystems of the country (ex., civil society, rural production societies, educational institutions, etc.). For this reason, it was a priority to take advantage of its dynamics in order to channel participation actions, communication, and consultations in the REDD+ process, as identified in early dialogue in the preparation of the Readiness Preparation Proposal (R-PP). In the following section the different consultation spaces, coordination and dialogues that took place during the REDD+ readiness process are presented (**Indicators 7 to 9**):

- Technical Committee and Policy Committee of Project REDD+ meetings;

- Consultation workshops about the drivers of deforestation, degradation and forest benefits;
- Dialogue with groups self-identified as indigenous;
- REDD+ Roundtable;
- Coordination group for the National Climate Change Response System (SNRCC);
- Inter-institutional dialogues;
- Working group on characteristics of the different phases of REDD+; and
- Inter-institutional working group for the design of the National Forest Monitoring System.

### *Technical Committee and Policy Committee of Project REDD+*

As part of the aforementioned institutional agreements, a Technical Committee and a Policy Committee operate, which accompanied the whole REDD+ readiness process in Uruguay. The monitoring meetings by both Committees allowed for a continuous exchange of information related to REDD+ goals. In this way it was assured that the management mechanisms for REDD+ activities were coordinated in an integrated manner with the general frameworks of existing national and sectoral policies and those in development (in sub-component 2a the “List of the Framework of Policies and Laws related to REDD+” is presented.

Accordingly, during the preparation stage between 2006-2021, 35 meetings of the Technical Committee and 13 meetings of the Policy Committee took place (**Indicator 7**).

### *Consultation workshops on drivers of deforestation, degradation, and benefits of the forest*

In the preparatory and dissemination stage before the ENREDD+ consultation, five consultations at territorial level were held about benefits, and drivers of degradation and deforestation of native forest. This also added the identification of training needs and strengthening of diverse key stakeholders identified in the readiness framework for REDD+ Strategy. Two of the consultation meetings were focused on the coastal forest near the River Plate and the Atlantic Ocean (West Coast and East Coast). These workshops took place in September and October 2017 and in all, 50 representatives of civil society, local municipalities, and City Council experts from the six subnational governments on the coastal front gathered.

In 2018, during April and May, three new participation and consultation meetings in relation to causes and benefits were held. This time the activities were from the departmental court and took place in Rivera, Paysandú and Rocha, looking for a territorial balance that would take into account distinct zones and types of forest in Uruguay (**Indicator 8**).

In all, these meetings convened more than 140 stakeholders linked to diverse sectors of civil society and public and private institutions: environmental organizations, members of organizations self-identified as indigenous, rural development societies, agrarian cooperatives, forestry businesses, as well as university members, departmental government representatives, and national representatives of various ministries, like the Planning and Budget Office (**Indicator 7**).

Table 1 –Participant numbers by type of stakeholder, broken down by sex.

Stakeholder	Number of participants	Men (%)	Women(%)
Organization self-identified as indigenous	15	53.3	46.7
Academia	4	0	100
Institutional	56	62.5	37.5
NGO	46	65.2	34.8
Women's organization	3	0	100
Private Sector	1	100	0
Family producers	21	47.6	52.4
Total	<b>145</b>	<b>57.2</b>	<b>42.8</b>

The workshops began with a presentation about REDD+ Uruguay by the project team, including: the definition of REDD+, its international context, the goals and expected principle products for the implementation of the project, the implementation phase, a timetable of the preparation phase and the process of developing the Strategy for Uruguay (**Indicator 9**). Following that, the goals of each activity were presented:

- Obtain input about multiple benefits, degradation and deforestation drivers specific to the department;
- Improve the understanding of the relationship between different stakeholders and sectors to the native forest;
- Local contributions to the first version of the REDD+ strategy.

Then, by means of a presentation by the REDD+ team, definitions of multiple benefits of the native forest were explained, with international and national examples. Afterwards the same was done for the concepts of degradation and deforestation. A brief session for questions and contributions was then held (**Indicator 9**). Then, to finalize the first stage of the workshop, the stages of group work were defined:

- Exchange about multiple benefits of native forests: identification and prioritization;
- Exchange about the drivers of deforestation and degradation: identification and prioritization;
- Plenary for sharing group work.

Then the participants were randomly divided to work in subgroups of approximately 10 people. Each work subgroup had two facilitators to guide the dialogue around the guiding questions to address the topics of interest. Additionally, they registered the participants by subgroup and collaborated with the participants in writing cards used for the working dynamic as well as the creation of a single list and the prioritization within it. They also had the task of encouraging dialogue and opinions of all of the members of the subgroup, especially the opinions of women and the elderly.

To address the consultation about multiple benefits of the forest the following guiding questions were posed (**Indicator 8**):

- What benefits, services and/or goods does the forest have for your activity and for that of your sector?



- What is the scale of the benefit: local, departmental or regional?
- Do you make use of these benefits, would you use them, can they be associated with any particular type of forest?

With emphasis on the first question, they worked on cards that each participant completed according to the benefits of the forest that they identified while there was exchange among the participants.

Then they turned to reading the cards and compiling a single list of benefits, discarding those that were repeated. After making the list of benefits, with the cards glued to a flipchart, they turned to “voting”, in other words prioritizing the benefits. Each participant had 5 stickers to put on the benefit or benefits that they considered to be most important. The five votes could be distributed however the participant wanted, from putting five on one benefit to putting one each on five different benefits.

After finishing the work on the benefits, they moved on to the consultation of drivers of deforestation and forest degradation (**Indicator 8**). To address this topic, they worked on the following guiding questions:

- Do you believe that the native forest area has been maintained in the last 10 years?
- What are the causes of degradation, deforestation, and the difficulties that impede the conservation of the forest area in your locality or department?

This time an emphasis was put on the second question and it proceeded in the same way as with the benefits (voting with 5 stickers for each participant), in this case trying to distinguish between direct and indirect drivers of forest degradation and deforestation.

Throughout the subgroup work there was a roaming facilitator who helped with the coordination of each subgroup, the delivery of materials, and in the coordination so that all the working subgroups abided by the times and systematization of the information that they were generating.

The perspectives/concerns attributed to specific groups of interested parties are presented in the individual reports of each workshop, available for reference (**Indicator 7**). In Table 2, the main results of each meeting are presented, along with information about the number of participants.

Table 2 – Summary of the main results of the workshops/encounters on driving factors and benefits.

Place and date	Type of Workshop and Region / Department	Participants	Main results
Jaureguiberry, September 30 2017	Drivers and benefits  Coastal Region of Río de la Plata	28 32% Women 68% Men	The native coastal forest presents a series of notable benefits: endemism conservation, unique or relictual ecosystems, landscape features of recreational, touristic and cultural value, landscape connectivity, waterway quality conservation, adaptation to climate change by means of its buffering capacity in extreme events and reduction of erosive impacts on beaches.  As far as drivers of native coastal forest degradation and deforestation, they noted the occurrence of fires, ecosystem fragmentation due to the advancement of resort development,



Place and date	Type of Workshop and Region / Department	Participants	Main results
	East Coast – includes the departments of Colonia, San José and Montevideo		<p>invasive alien species, unpermitted vehicular traffic, pressure of tourist use through foot traffic, erosive processes in critical coastal points of high vulnerability.</p> <p>A large portion of the native coastal forest patches are found in private suburban properties and urban touristic localities. For their protection and the protection of their ecosystem services, departmental ordinances, Land Planning and Sustainable Development Plans (PLOTS, by its acronym in Spanish) and Land Planning and Sustainable Development Instruments (IOTS, by its acronym in Spanish) that recognize and prioritize this natural component and associated ecosystem services are especially important.</p> <p>Part of the native coastal forests are in fiscal lands under the auspices of subnational governments and others under national government. The maintenance of road infrastructure and the management of protected areas (APs, by its acronym in Spanish) is a key element for the maintenance of the native coastal forest areas associated with these contexts.</p> <p>Within the framework of the coastal protected areas, it is important to note the need to efficiently address degradation processes associated with livestock, invasion of alien species, solid waste and fire risks. Also, to be able to encourage restoration processes of environments where there is evidence of degradation processes. Park rangers identify the need of specific trainings and resources for the development of such tasks.</p> <p>The diversity of stakeholders involved or those who should be kept in mind for the development of conservation actions and the promotion of coastal ecosystems, especially the associated native forest, is also noted.</p>
Kiyú, October 7 2017	<p>Drivers and Benefits</p> <p>Atlantic Ocean coastal zone</p> <p>West Coast – includes the departments of Rocha, Maldonado and Canelones</p>	<p>21</p> <p>32% Women</p> <p>68% Men</p>	<p>The presence of native species and native coastal forest patches is found in marginal zones of the municipalities or associated with nearby rivers and streams. The coastal forest is found mostly between transit routes (boardwalk avenues) and the beach zone, the most important benefits noted are: shade for visitors, firewood, wind-breaking, and in some cases they act as coastal erosion controllers.</p> <p>As far as drivers of degradation and deforestation of coastal forest, they noted the occurrence of fires, advancement of invasive alien species, unpermitted vehicular traffic, pressure from tourist use through foot traffic, erosive processes associated with extreme wind and storm surge events.</p> <p>The exotic coastal forest possesses the aforementioned benefits, but simultaneously, negative attributes that interfere with the natural coastal dynamic are detected, favoring erosion processes and vulnerability to extreme events.</p> <p>Several groups, attending to these negative factors, have initiated a process of coastal forest adaptive management seeking to encourage benefits and minimize negative aspects.</p> <p>The need for trainings specific to the adaptive management of the coastal forest is noted, deepening the criteria used to avoid negative factors associated with the exotic forest on the natural coastal dynamic.</p>
Rivera, April 12 2018	<p>Drivers and Benefits</p> <p>North</p>	<p>18</p> <p>28% Women</p> <p>72% Men</p>	<p>Concerning the inter-institutional collaboration to work for the benefit the native forest, it is urgent to generate synergy and coordination for the whole territory and between all the institutions that have authority over the native forest. There is little inter-institutional collaboration and it does not accomplish the fulfillment</p>

Place and date	Type of Workshop and Region / Department	Participants	Main results
			<p>of the current regulations. At the same time, they call for a more specific and clear regulation.</p> <p>The benefits mentioned can be grouped in environmental, productive/economical, and cultural. Among the first two are the role of the forest in maintaining water and soil quality, and the role of buffering possible urban floods. In the second two they mention the role of the forest as shade and covering for the cattle, the extraction of wood, and other possible income sources for producers.</p> <p>Among the causes of degradation and deforestation, they clearly identify a group of direct causes and one indirect. Among the first group are firewood logging, logging to increase the productive area (concretely cattle or rice), the exploitation of quarries, and increasing nature tourism. Among the indirect causes are: lack of uniformity in actions, lack of inter-institutional collaboration, lack of human and economic resources (to oversee, control and promote environmentally sound practices or incentives), lack of oversight and control, lack of a specific policy, lack of knowledge of the native forest and lack of valuing the resource (above all on the part of the producers).</p> <p>Among the possible actions to carry forward for the improvement of the state of the native forest, they mention many alternatives, among which training about and awareness of the topic are recurrent. Among concrete actions mentioned are: planting, oversight, generating a single permit process, imposing guarantee funds on the companies that exploit the resource, funds for research in the native forest, action protocols, inter-institutionally executable funds, registration of loggers, certification of forest firewood, restoration of buffer zones, strong reproduction and production of native plants, volunteering and trail preservation.</p>
Bosques del Queguay, April 17 2018	Drivers and Benefits  West – including the department of Paysandú	42  47% Women 52% Men	<p>The benefits mentioned can be grouped into environmental services, productive / economic / subsistence, cultural/spiritual, and those linked to the richness of species and biodiversity. Among the first they note the role of the native forest in maintaining the water quality, fulfilling the functions of purification and filtering, erosion control for the soil follows in the prioritization, adding to what was stated by the three working subgroups, with this being the only benefit that is mentioned in the three cases. Among the latter they noted the role of the forest in the wellbeing of the animals such as cover and shade for cattle, as well as a forage species reserve of high interest to livestock farming, followed by the harvesting of non-timber products, among which access to medicinal plants and nature tourism are noted. In terms of cultural and spiritual benefits, the recurrent mention of the forest for spiritual activities and transmission of traditional knowledge must be noted. Finally, with respect to biodiversity, the role of the native forest as a refuge and protection for unique species of flora and fauna is mentioned.</p> <p>If the sum of the benefits associated with the native forest are viewed in groups, it can be seen that the economic/productive benefits have the most benefits and prioritization votes, followed by environmental services, biodiversity conservation, and lastly, benefits associated with cultural and spiritual uses.</p> <p>Among the causes of degradation and deforestation, a set of direct causes and indirect causes can be identified. Among the direct causes: the advancement of agriculture, afforestation and agrochemical uses. Ranking lower they mention irresponsible livestock farming, the presence of invasive alien species, irresponsible tourism, and the encroaching urbanization. Among the indirect causes are lack of</p>

Place and date	Type of Workshop and Region / Department	Participants	Main results
			<p>control and lack of awareness about the native forest. If we group into a category called “awareness” the lack of awareness, education and by extension what the native forest is and its beneficial uses, the need to work on these topics with all social stakeholders becomes clear.</p> <p>From this awareness and education about ecology, benefits and historic-traditional aspects of the native forest emerge as a possible action to be undertaken. Promoting these spaces not just to create awareness and educate people, but also to give transparency to the management of the forests, such as the dissemination and promotion of research linked to them, promoting the outreach with the different stakeholders at the local level.</p> <p>Other possible actions to carry out to improve state of the native forest are: improving the mechanisms of oversight and control, including stating the necessity of creating a system of more severe fines and penalties for actions that degrade and deforest the native forest; a greater collaboration and coordination between State institutions with “decision making power” over the conservation of the native forest; control of invasive species with the possibility of including the participation and knowledge of social organizations.</p>
Fortín de San Miguel, May 15 2018	Drivers and B  East – including the department of Rocha	54  44% Women 56% Men	<p>The benefits mentioned can be grouped into environmental services, productive / economic / subsistence, cultural/spiritual, and those linked to the richness of species and biodiversity. In the first group the role of the native forest in the regulation of the water cycle, protection of watersheds and erosion control, the latter being the only benefit mentioned in the three groups.</p> <p>The attendees identify the forest as a key element in the promotion of tourism by means of ecotourism and recreational activities. Those associated with farming activities and the extraction of non-timber products, pollenating for the production of honey and mushrooms. As far as spiritual and cultural, the recurrent mention of the native forest for spiritual activities and transmission of traditional knowledge must be noted, even though the educational benefit was the most often cited and prioritized by the attendees. Finally, with respect to biodiversity, the role of the native forest as a refuge and protection of unique species of flora and fauna is mentioned.</p> <p>If the sum of the benefits is viewed in groups, it can be seen that the economic / productive group has the most benefits and most prioritization votes, followed by environmental services, biodiversity conservation, and lastly, those associated with the spiritual and cultural uses.</p> <p>Among the causes of degradation and deforestation, groups of direct and indirect causes are clearly identified. Among the direct causes: overgrazing with special attention to Palmares de Rocha.</p> <p>Among the direct drivers of major importance, the advance of afforestation, the use of agrochemicals and the invasion of alien species are found. With less priority, they mention urban encroachment, firewood logging, and the diversion of fluvial channels for the construction of water outlets.</p> <p>On the other hand, among the indirect causes, the ones most prioritized by the attendees were those that are associated with productive models of an extractive nature. They also mentioned those drivers regarding the lack of awareness and education about the importance of the native forest and its potential as a provider of multiple benefits, making clear the necessity of working on these issues.</p> <p>The awareness and education about ecology, benefits and historic-traditional aspects of the native forest become clear from the above</p>

Place and date	Type of Workshop and Region / Department	Participants	Main results
			<p>as a possible action to undertake. Promoting these spaces not just to create awareness and to educate, but also to lend transparency to the management of the forests, as well as the dissemination and promotion of research associated with them, promoting the outreach with different stakeholders at the local level.</p> <p>Other possible actions to be carried out to improve the state of the native forest are: improve the mechanisms of oversight and control, including stating the necessity of creating a system of more severe fines and penalties for actions of degradation and deforestation of the native forest; a greater collaboration and coordination between the State institutions with “decision-making power” over the conservation of the native forest with special emphasis on los Palmares; control of invasive alien species with the possibility of including the participation and knowledge of social organizations.</p>

The following tables present the list of benefits of the native forest, the drivers of deforestation and degradation, and their prioritization identified by the participants of the 4 workshops (Indicators 7-9).

Table 2 - List of benefits of the native forest and their prioritization.

Category	Benefits of the native forest	Prioritization				Total
		Paysandú	Rocha	East Coast	West Coast	
Environmental	Erosion control	14	10			24
	Regulation of the water regime	9	7			16
	Filter - debugging	17	3			20
	Pollination	5				5
	Climate change mitigation	12		7	4	23
	Carbon capture	8				8
	Protects from floods	4	11			15
	Air cleaning	4	2			6
Productive / Economic / Subsistence	<b>Total</b>	<b>73</b>	<b>33</b>	<b>7</b>	<b>4</b>	<b>117</b>
	Nature tourism -	8	16	4	4	34
	Production of non-timber products	8	14	5	1	28
	Livestock production - animal welfare - shelter and shade	33	11			44
	Medicinal plants	7	8			15
	Timber product - firewood	4	2			6
	Tax exemption	1	9			10
	Sustainability	9	2			11
Cultural / Spiritual	Natural pastures - forage reserves	10	7			17
	<b>Total</b>	<b>80</b>	<b>71</b>	<b>9</b>	<b>5</b>	<b>165</b>
	Experiential, traditional, cultural	11	4			15
	Knowledge sources	6				6
	Native knowledge	6	7			13
	Education	2	21	6	1	30
	Spirituality	5	5	2		12
	Beauty	1	4			5
Biodiversity	<b>Total</b>	<b>31</b>	<b>41</b>	<b>8</b>	<b>1</b>	<b>81</b>
	Refuge and protection of species	24	3	7	1	35
	Genetic material	1	42			43
	Biodiversity Talk	17		6	1	24
	<b>Total</b>	<b>42</b>	<b>45</b>	<b>13</b>	<b>2</b>	<b>102</b>

Table 3 - Prioritized list of drivers of deforestation and degradation of the native forest.

	Causes of degradation and deforestation	Prioritization				Total
		Paysandú	Rocha	East Coast	West Coast	
Direct	Afforestation progress	14	33			47
	Invasive exotic species	12	23	8	2	45
	Use of agrochemicals	15	28	1		44
	Livestock overload	13	30			43
	Advancement of agriculture	24	18			42
	Urban sprawl	10	17	10	3	40
	Tourism	12	7	11	1	31
	Logging for firewood (or weeding)	1	17	5	4	27
	Fires		11	3	2	16
	Land-use change		8			8
	Hunt		8			8
	Pollution (solid waste)		2	3	1	6
Indirect	Aggregate extraction				1	1
	Lack of awareness about the native forest	19	17			36
	Productive model with extractive objectives/ Change in the productive matrix	7	21			28
	Lack of control	20	3			23
	Lack of education	7	10			17
	Lack of coordination between levels of government	9	4			13
	Risk Law	11				11
	Lack of extension	10				10
	Selfishness / Selflessness / Laziness	10				10
	Bad policy for the native forest	9				9
	Lack of research on native forest	7				7
	Lack of interference and state recognition for indigenous organizations	3				3
	Lack of financing for forest management	2				2
	Lack of communication between institutions	1				1
	Failure to pay for ecosystem services	1				1

### *Dialogue with Groups that Self-identify as Indigenous*

In the framework of the identification of relevant stakeholders for the implementation of ENREDD+ completed during the early dialogue stage and taken up again during the REDD+ in Uruguay readiness stage, and of the operational procedures of the World Bank, the necessity of making a characterization of Uruguay's ethnic groups and their potential cultural or productive relationship to the forests was stated (**Indicator 7**). Accordingly, a consultation process to be carried out about the relationship between those who self-identify as indigenous and the native forest was defined (**Indicator 8**). As a result of this process, a report was made with the goal of carrying out an analysis of the current state of the people who self-identify as indigenous in our country and their relationship to the native forest<sup>11</sup>. Through the consultation process, spaces of relevance were prioritized, material as well as immaterial, for this group in the entire national territory, as well as principle uses that they make of the native forest (**Indicators 8 and 9**).

The methodological strategy included a review of the literature, interviews with key informants, five working groups and a workshop with groups that self-identify as indigenous in different departments of the country, and a workshop with the groups to review the draft of the report. As a result of the interviews, it was decided that the consultation meetings should be with the organizations that are centered around those who self-identify as indigenous in working groups or workshops. To define the places where these working groups and workshop took place, they

<sup>11</sup> Project REDD+ Uruguay (2020). Indigenous Populations in Uruguay and their Relationship with the Forest. Rodríguez, P., Justo, C., Miguel, C., Olivera, J. y Martino, D. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: [https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/1.%20Informe\\_PI\\_y\\_BN.pdf](https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/1.%20Informe_PI_y_BN.pdf)

crossed over the map of indigenous ancestry made with data from the 2011 census with the mapping of the organizations/groups/families of those who self-identify as indigenous made in the interviews.

Considering the population distribution of those who self-identify as descendants of indigenous people, the distribution of the organizations that represent those who self-identify as indigenous, and incorporating specificities of some of the departments (ex.: Paysandú which is where Montes del Queguay is found, place of interest for this population) it was decided to have 6 small workshops or working groups in different strategic places of the national territory: Montevideo, Tacuarembó, Salto, Paysandú, Rocha and Flores **(Indicators 7 to 9)**.

These gatherings sought responses to the following questions:

- Are there specific territories where groups self-identified as indigenous settle?
- What are the territories that you recognize as significant for these groups?
- As people self-identified as indigenous, what type of relationships do you have with that territory?
- What do you use it for?
- Do you identify problems with access to those territories?
- Is the use of natural resources or common goods by groups self-identified as indigenous different from the uses made by other urban-rural populations?
- In conclusion, how do you believe that you could contribute to conservation of our country's native forest?

Based upon these questions, a standardized work guideline was created for the 6 working groups, in each one, part of the group worked on a national map and the other one on a regional map. The standardized guideline had the goal of, after holding the working groups, to be able to centralize the information gathered in each territory in a single analysis for the all of the national territory.

Three working sessions were held during each day:

#### I. Work on the National Map

##### *Working the territoriality:*

- i. Would you be able to identify specific territories on the map where groups self-identified as indigenous settle? Mark with the color RED
- ii. Would you be able to identify if any of these groups makes a living on the extraction of natural resources or that this is a central activity to their economy? (Place a sticker)
- iii. Could you identify on the map significant territories for the groups? (Mark with the color BLUE) Describe what makes them significant.
- iv. What relationship do they have with said territories? (Frequency, role, specific uses of each one of the territories identified)
- v. Can you identify problems or limitations in the access to those territories? Which ones? (specify in general and mark on the map which of the territories you identify with these problems, in the event that they are isolated cases)

##### *Regarding natural resources:*

- vi. Is the use of natural resources or common goods by groups that self-identify as indigenous different from the uses of other populations? How?

## II. Work on the Regional Map

### *Thinking about the region's forests:*

- i. Could you find the native forests of the region on the map? (Mark with the color GREEN)
- ii. And what use do they make of them? (with a sticker, identify the forests of the region that they make special use of and specify use or enumerate and elaborate in writing)
- iii. Could you identify groups self-identified as indigenous that live in the native forest? How? (Mark with the color RED)
- iv. Can you identify problems or limitations in the access to the forests? Which ones? (specify in general and mark on the map which forests these problems are identified, in the event that they are isolated cases)

## III. Project REDD +

### *Thinking about REDD+:*

- i. Does being self-identified as indigenous create any disadvantage compared to people that are not? Do you know any case in which the fact of self-identifying as indigenous has limited a person?
- ii. How can Project REDD+ affect the use that these groups make of these territories today?
- iii. How do you believe that you could contribute to the conservation of the native forest of our country?

Lastly, they held a consultation activity in which those who self-identify as indigenous and have a relationship with the organizations that represent them participated, either because they are part of them or they have contact by a common interest, without forming part of the organization. The goal of this activity was to collect comments and suggestions about what was captured in the report, above all with relationship to the native forest. They also worked on the prioritization of the territories identified in the workshops that took place during the first meetings in the preparation of the report.

Table 4 – Summary of the main results of the workshops/meetings with the self-identified groups.

Place and Date	Type of Workshop and Region	Participants	Main Results
Montevideo, August 19, 2018	Indigenous Population and Native Forest. South	30 53% Women 47% Men	The main complaint from the beginning of the workshop is that of State recognition, recognition that they are descendants of indigenous peoples, recognition that it should be formal. They sustain that that is the first fight, and they understand that there have been important accomplishments but it is not enough. They all mention that the Charrúa Pueblo is a scattered community due to the historical process of genocide and expulsion from the territories, and that they are present day in all of the national territory, with the



Place and Date	Type of Workshop and Region	Participants	Main Results
			identified territories being those with the greatest populations, even if they do not live in community.
Tacuarembó, August 29, 2018	Indigenous Population and Native Forest. Central	10  50% Women 50% Men	The people that participated in this working meeting campaign for the recognition of the descendants of the original groups. They affirm the idea of historical stigma they carry and understand that there is a different relationship with nature, and in particular, the native forest. They speak at more than one opportunity about promoting a transformative education. They do not identify specific risks around the implementation of an ENREDD+ in our country. The spiritual relationship with the native forest, the respect for nature, and the teachings of their ancestors make them different from other people.
Salto, August 29, 2018	Indigenous Population and Native Forest. North	7  29% Women 71% Men	The people that participate in this meeting affirm their heritage, mentioning the importance of the relationship with nature for them. Regarding the land, they mention several times that they do not want to be owners, rather protectors of it. What we can say about this working meeting is that the two groups represented in the meeting were not aligned in terms of complaints or requests. There seemed to be some who took advantage to make clear their spiritual and territorial needs, and those who had a view that was more technical and about taking care of nature.
Paysandú, August 30, 2018	Indigenous Population and Native Forest. Northeast	6  50% Women 50% Men	Currently those who are part of the organizations for descendants of indigenous people conduct occasional activities in the place, the zone is already a protected area (Montes de Queguay), there is a natural pharmacy in the place and it has a very high spiritual value for them.
Chuy, October 10, 2018	Indigenous Population and Native Forest. East	7  15% Women 85% Men	It is important to mention again that of the participants in this working group, only one self-identified as a descendent of indigenous people. The others, all part of the civil association Eco Chuy, stakeholders strongly linked to the wellbeing of the community, incorporating in their agenda issues of the environment and native forest. People very well educated and knowledgeable about the zone. It was a working meeting that did not only involve people that self-identify as descendants of the indigenous people of our country, which in reality enriched the vision and helped us confirm certain social constructions about the descendants of indigenous peoples in Uruguay. We see how those knowledgeable about indigenous issues affirm that today they do not exist in our territory.
Trinidad, October 17, 2018	Indigenous Population and Native Forest. Southwest	4  75% Women 25% Men	What was taken from this working meeting is a little different from what was brought up in different instances of exchange. They sustain that the difference that they consider themselves to have with respect to the rest of the population is that they are connected to nature, and by extension with the forest, in a different way. From the respect and the non-exploitation, because their ancestors did the same and they transmitted it to them. They sustain that there are no longer communities or people that making a living on the use of natural resources. They understand that their relationship with the forest is the same that anyone else who wished to could have. And they do not find any limitation to accessing territories that they wish to access. What they want is to be able to support indigenous values and rescue the memory.
Valle Edén, December 2, 2018	Indigenous Population and Native Forest. National	50  50% Women 50% Men	The main suggestions or comments that were received during the exchange after the presentation centered around: They do not identify as "descendants of indigenous peoples", rather as indigenous.



### *REDD+ Roundtable*

In the framework of the Coordination Group for the National Climate Change Response System (SNRCC) the National REDD+ Roundtable was established **(Indicator 7)**. On December 7, 2018 the REDD+ Roundtable was held as a meeting of the involvement and participation of different stakeholders from civil society, including academia, the private sector and the government, in the REDD+ process in Uruguay. The National REDD+ Roundtable constitutes a space for exchange and spreading information regarding the general aspects of the REDD+ Program **(Indicators 7 and 9)**. In this first conference there were 14 participants present, apart from the MA and MGAP authorities, and members of the REDD+ Program team. In this first meeting REDD+ was presented, its tasks and progress, the expected relationship with the Roundtable stakeholders and the possibility of linking REDD+ initiatives to new demands that face exportation sectors was shared. They proposed broadening the meeting to other private stakeholders, emission generators and funding mechanism facilitators alike **(Indicator 9)**. We hope to hold at least two annual REDD+ Roundtable meetings.

A second meeting of the REDD+ Roundtable was held on November 4 2020 in virtual format due to the limitations imposed by COVID-19, which was attended by 13 participants without taking into account the MGAP and MA authorities, and the members of the REDD+ team that offered support to the activity. The goal of this activity was to briefly present Project REDD+ Uruguay and the actions and progress up until now **(Indicator 9)**.

### *Coordination Group for the National Climate Change Response System (SNRCC)*

To move forward in the process of discussion of the National REDD+ Strategy, on the 21<sup>st</sup> of May 2019 there was a presentation of the ENREDD+ Draft in the SNRCC Coordination Group. This coordination group made contributions to the document, which were incorporated, such as suggestions for the process of Strategic Environmental and Social Assessment (SESA). Twelve stakeholders linked to different institutions of the public sector participated **(Indicator 7)**.

### *Inter-institutional Dialogues*

As part of the continuous exchange process with society and experts involved in the management of the native forest, different activities were organized and held. **(Indicators 9 and 10)**.

Two workshops with civil society and tertiary level students were held in the city of Canelones and in the department of Maldonado (Universidad del Trabajo del Uruguay UTU-Arrayanes, July 23 2019). The objective was to spread and raise awareness about issues linked to the native forest to local and departmental stakeholders. The proposed topics mainly centered on the ecosystem services, the current regulations, the management of the native forest and the ecological restoration with citizen participation. In the Canelones Workshop 45 people participated, 19 of whom were female and 26 were male. If that number is broken down according to type of stakeholder, there were 42 participants from institutions and 3 from civil society.

On the other hand, the Maldonado workshop had an important participation, where there were 168 people present, of whom 93 were male and 75 were female. Of all of the participants, broken down by stakeholder, 96 were members of institutions and 72 from civil society.

On August 22 2019 a workshop was held in the city of Treinta y Tres (venue of the National Institute of Agricultural Research, INIA by its acronym in Spanish) with the participation of 23 experts, from different institutions (DINABISE, DGF, INIA, INC, DGDR), of whom 15 were male and 8 were female. The objective of this inter-institutional exchange was to increase expert coordination by way of strengthening the technical-institutional trainings and the actions, with the goal of improving the management and conservation of the natural ecosystems in the properties of the National Colonization Institute. On August 30 2019, in the city of Paysandú, they participated in "Native Tree Week". In this meeting they presented the data reported in the work "Analysis of invasive alien woody species based on National Forest Inventory plots" (Spanish title: *"Análisis de especies exóticas leñosas invasoras en base a las parcelas del Inventario Forestal Nacional"*) At the expert level, they developed different exchange workshops with the regional expert from the National Colonization Institute (INC, by its acronym in Spanish). In the workshop that was held in Paysandú, with INC experts, there were 31 participants, of whom 12 were women and 19 were men.

In this line of expert exchange they also carried out different visits to establishments of different colonies of various departments in the country. In the departments of Colonia, Cerro Largo, Soriano and Tacuarembó they visited properties with the purpose of assessing and evaluating the native forests and the invasion of invasive alien species (in this case different plans of action to control them were proposed).

In order to strengthen the dialogue process in the territory, as well as know the experiences guided toward native forest management and conservation that the civil society promotes and drives, the REDD+ Project participated in the Second Meeting of Native Forest organized by the Network of NGOs in Uruguay, which was held in the city of Mercedes on September 29 and 30 2018. In this meeting, there were more than 30 people present from different institutions and civil society. The input raised in this activity contributed input for the implementation of ENREDD+.

### *Working Group on Characteristics of the Different Phases of REDD+ S*

During 2022 an inter-institutional group was created. It sought to strengthen the national expert trainings and foster a place for exchange and discussion around the characteristics of the different phases of REDD+

They invited a greater number of experts from other disciplines from the institutions that formed the group, academics and/or government agency professionals and/or second grade institutions from the private sector or from Civil Society organizations, for occasional discussion meetings agreed upon between the group participants.

In all there were four meetings in which more than 18 institutions and 37 people participated (21 women, 16 men).

### *Inter-institutional Working Group for the Design of the National Forest Monitoring System*

This working group sought to foster a technical meeting for exchange and discussion, in addition to contributing to the strengthening of the national expert trainings in relation to the National Forest Monitoring System (SNMF, by its acronym in Spanish) **(Indicators 9 and 10)**.

As a result, this group contributed input to the SNMF design. There were four meetings, which included 8 institutions linked to the government and 19 people (10 men and 9 women).

## **SESA Consultation Process for ENREDD+**

### ***Corresponds to Indicators 8 and 23-25 in the FCPF Assessment Framework:***

In July 2019 work for the country to carry out the Strategic Environmental and Social Assessment (SESA), the implementation of the Environmental and Social Management Framework (MGAS) and the Grievance and Conflict Resolution Mechanism (MARC – described in subcomponent 1a on page 8) commenced.

In this framework, five regional workshops and one national workshop were held for the purposes of identifying possible risks and impacts that could arise from the implementation of ENREDD+.

The objectives of the workshops were:

- Present the progress of the REDD+ National Strategy and the proposal for strategic actions.
- Make known the progress of the Strategic Environmental and Social Assessment (SESA) and the Environmental and Social Management Framework (MGAS, by its acronym in Spanish).
- Collect input and perspectives from local stakeholders about: potential impacts of the REDD+ proposal actions (negatives and positives, environmental and social) and potential mitigation measures for the negative impacts identified.
- Collect comments about REDD+ strategic actions that can inform the National REDD+ Strategy.

Social organizations, local communities, rural producers, regional academic stakeholders, departmental government stakeholders, departmental experts and representatives of groups that self-identify as indigenous participated in these meetings (Table 6).

The following issues were addressed in the regional workshops: REDD+ in Uruguay, progress on the national process and presentation of the possible ENREDD+ actions; presentation on the SESA process and its link with the strategic actions; identification of possible negative and possible impacts that come from the strategic actions, prioritization of adverse impacts and identification of priority mitigation measures.

The six strategic actions associated with the ENREDD+ proposed actions that the consultation addressed were the following:

- Strategic Action 1: Strengthen the surveillance system, oversight and sanctions in the Native Forest (BN, by its acronym in Spanish), other native forest formations (OFBN, by its acronym in Spanish) and native trees outside of the forests (ANFB, by its acronym in Spanish) in order to fight against infractions.
- Strategic Action 2: Promote sustainable management of productive systems that are compatible with native forest conservation.
- Strategic Action 3: Support and promote the development of native forest services and products based on sustainable forest management.
- Strategic Action 4: Promote the management of the BN, ANFB and OFBN housed in urban and semi-urban contexts.
- Strategic Action 5: Promote the creation of new mechanisms to incentivize the conservation and protection of BN, OFBN and ANFB.
- Strategic Action 6: Promote native species plantations to provide a sustainable supply of wood products, non-timber products, increase forest coverage and encourage biodiversity.

Based upon what was collected in the regional consultation meetings, these items were discussed and feedback was provided in the national workshop held on December 5, 2019.

The workshop objectives were:

- Present REDD+ progress in Uruguay;
- Introduce REDD+ safeguards in the context of Uruguay;
- Present the general results of the regional level consultation process in the framework of the Strategic Environmental and Social Assessment (SESA);
- Discuss and provide feedback on the identification and prioritization of possible positive and negative social and environmental impacts resulting from the national process.

The context and objective of the REDD+ safeguards were presented, as well as the group of social and environmental principles contained within them, the keys behind the best international practice in the field, and the role of the legal framework applicable in Uruguay to determine the compliance with the rights and obligations implicated in the safeguards. The general results of the SESA territorial consultation process at the regional level were presented and the national perspective towards the prioritization of the possible impacts in the SESA framework was added.

The systemization process and analysis of the information generated by the key stakeholders in the workshops were the base of the input for SESA. Said information, along with that generated by expert consultancy that was developed in parallel to the participative process, contributed to the identification of: the main drivers of native forest deforestation and degradation and the activities and the main potential risks and negative impacts that could arise during the ENREDD+ implementation.

It should be noted that beginning with the call for each workshop cycle (regional and national), we sought to deliberately ensure the participation of women that would balance the masculine bias in the leadership positions or representation of the invited organizations. In order to do this, by means of initial contacts with the Association of Rural Women in Uruguay (AMRU, by its Spanish acronym) and their associates and other networks, a special effort was dedicated to reaching more rural women, local producer groups and local women's organizations. During

each regional workshop, the different working groups consisted of women and men, with different gender ratios in each case (Table 6).

Table 6 – Summary of the main results of the national and regional workshops on the Strategic Environmental and Social Assessment.

Place and date	Type of workshop and region	Participants	Main results
Maldonado, August 28, 2019	Risks, impacts and mitigation measures. East	44 41% Women 59% Men	<p>Positive and negative impacts about the six consulted strategic actions were identified, as well as mitigation measures for the negative impacts. The majority of the negative impacts identified are found in the socio-economic sphere and in reference to inequalities that they can make to differential access to resources</p> <p>The psammophile forest covers special importance in the region of the country and the participants seem to have a generalized awareness about the issue of climate change, the impacts that this global problem entails and the importance of the native forest as an opportunity to confront its challenges.</p> <p>There were diverse organizations, although there was an absence of departmental and municipal governments. The national public sector had an important weight (32%), through territorial minister leaders. This workshop has the most weight relative to the national public sector in the group of regional SESA workshops. The other sectors represented that follow in presence in the workshop are the social and social-productive sectors (16% each), the productive and educational sectors (9% each), environmental (7%), neighbors (5%), indigenous groups (4%) and the non-productive private sector (2%).</p>
Salto, September 5 2019	Risks, impacts and mitigation measures. Northwest	35 40% Women 60% Men	<p>Positive and negative impacts of the six consulted actions are identified, as well as mitigation measures for the negative impacts. The majority of the major impacts identified are found in the socio-economic sphere.</p> <p>Bosques del Queguay is repeatedly mentions and its importance as a native forest of Uruguay is highlighted.</p> <p>Was the workshop of its type with least female representation. The activity showed organizational diversity of participants, with the most represented being the local public sector and the Salto and Paysandú public sectors (26% of all participants) and the national public sector (26%), through local ministerial leaders. Following those were the educational sector (14%), the social sector (11%); the social-productive sector (2%) and the environmental sector (2%), residents without organizational representation (2%), indigenous representation (1%), and the non-productive private sector (1%).</p> <p>The workshop had participants from all of the convened departments. Among these, Paysandú stands out, which made up almost half of the whole participation (48%). Salto follows with 29% and Artigas with low representation (3%). Three percent of the participants did not register a place of origin.</p>
Paso Severino, September 19 2019	Risks, impacts and mitigation measures. South	35 54% Women 46% Men	<p>Positive and negative impacts of the six consulted actions are identified, as well as mitigation measures for the negative impacts. The majority of the major impacts identified are found in the socio-economic sphere.</p> <p>The role of the forests in water quality is highlighted, and this is strongly linked to the Santa Lucía watershed and the restoration activities that are taking place there.</p> <p>In terms of types of organizations, there was a good diversity of participants. There was a strong weight from the social-productive sector (29%), principally from different rural development societies and rural and producer women's groups. Following was the local public sector (municipal and departmental), with 26% of the participants. After</p>

Place and date	Type of workshop and region	Participants	Main results
			that was the national public sector (14%), members of indigenous groups (11%), the social sector (8%) and environmental, educational, private social and productive with 3% each.
Tacuarembó, September 24 2019	Risks, impacts and mitigation measures. Northeast	25  56% Women 44% Men	Positive and negative impacts of the six consulted actions are identified, as well as mitigation measures for the negative impacts. The identification of impacts focused on the social realm and the environmental realm is very balanced for all of the actions discussed. Compared to the other regional workshops, this one was had the second highest female participation. If we observe the participant profile according to type of organization they belong to, there was a greater participation from social organizations, productive and national public sector, with each one comprising 20% of all participants.
Mercedes, September 26 2019	Risks, impacts and mitigation measures. Southeast	31  61% Women 39% Men	Positive and negative impacts of the six consulted actions are identified, as well as mitigation measures for the negative impacts. The identification of impacts focused on the social realm and the environmental realm is very balanced for all of the actions discussed. This was the workshop with the least male participation. If we observe the profile of the participants, according to type of organization they belong to, there was a greater presence of members of groups who self-identify as indigenous (23%), followed by local stakeholders from the national public sector (16%) and the local educational sector (13%). Participants from socio-productive organizations follow (10%), then environmental organizations (6%), social organizations (6%), productive private sector (6%) and non-productive (6%), local public sector (1%), and 3% who did not register membership to any organization.
Montevideo, December 5 2019	Risks, impacts and mitigation measures. National	60  40% Women 60% Men	Prioritized the risks and impacts at regional level and created a draft proposal for the safeguards, incorporating the national reality. Once again, we sought to ensure an equitable participation according to gender, which would balance the bias that exists in leadership positions or organization representation, where the majority are men. In order to do so, we turned to contacts generated in previous workshops with women's organizations. Also, during the follow up to the invitation the importance of participation by women was stressed. Despite this, the majority of the participants were men. Of the women participants, half came from the public sector (38% of national level and 13 from subnational level), the rest were divided between environmental OSCs (21%), educational/academic (13%), socio-productive (13%) and international organizations (4%). On the other hand, the profile of those who participated in the workshop according to type of organization is observed, 51.7% come from the public sector at the national level. The rest are distributed as follows: 15% of participants from environmental OSCs, 8.3% from the subnational public sector, 8.3% from socio-productive organizations, 8.3% from educational/academic organizations, 3.3% from indigenous groups, 1.7 from productive organizations, 1.7% from other OSCs and 1.7% from international organizations.

## REDD+ Communication and Dissemination

### *Corresponds to Indicators 9 and 10 of the FCPF Assessment Framework:*

In May 2020, in coordination with the areas responsible for communication from the ministries that govern REDD+, a plan with guidelines for the communication of the REDD+ readiness phase was made. This REDD+ communication plan has the goal of supporting the process of the

construction of the REDD+ National Strategy in its different stages, seeking to raise awareness among citizens about the importance of the native forest, its benefits and its role in climate change mitigation, promote the citizen participation in the adequate implementation and execution of a national REDD+ strategy, integrating the vision, opinions and proposals of the stakeholders consulted.

In the dissemination material, REDD+ has visual identity and at the end of 2019 a series of testimonies about the native forest and the link with human activities (productive, traditional uses, etc.) was published. Through a series of interviews with civil society stakeholders (family producers, NGO representatives), experts linked to different MGAP and MA offices, as well as subnational governments, the videos narrate the link between the native forest and the regulation of quality and quantity of water resources, the role of the native forest in livestock activity, the importance of the native forest linked to rural communities and the same in relationship to green infrastructure at the urban level. The scripts were constructed in coordination with communication representatives from both ministries and they present a clear balance in gender and in representation from different stakeholders linked to the native forest. Short videos were also shared which summarize the audiovisual ideas. The links are available at the following and can be accessed on the MGAP YouTube© channel.

#### REDD+ Audiovisuals

- [Native Forest and Water Resources](#)
- [Traditional Uses of the Native Forest](#)
- [Rural Production and the Native Forest](#)
- [Cities and the Native Forest](#)
- [Cities and the Native Forest – second version](#)

As Project REDD+ progressed in the implementation of participation, training and research activities, various notes for internet publication were prepared by the ministries and local newspapers, including those that follow:

- [Workshop Cycle over Drivers of Deforestation and Degradation](#)
- [SESA Workshop 1](#), [SESA Workshop 2](#), [SESA Workshop 3](#), [SESA Workshop 4](#)
- [National REDD+ Workshop 2019](#)
- [Google Earth Engine Training for Forest Mapping and Monitoring](#)
- [La Diaria: Invasive Alien Species](#)

In the framework of the research agreement between Project REDD+ and the National Institute of Agricultural Research (INIA) the following two publications appeared in the Technical Journals of INIA and of the Agricultural Plan Institute [Revista INIA Nro. 61](#) and [Revista Plan Agropecuario Nro. 190](#).



## Trainings

In the Project framework two trainings sessions were held, tackling different topics presented in Table 5.

Table 6 – Trainings and exchanges held in the Project REDD+ framework

Date	Description	Number of participants		
		Total	Men	Women
August 29-31 2017	REDD+ process in Uruguay- Experience exchange with Chile.	11	7	6
September 6 2017	Forest mapping, remote sensing and monitoring.	21	13	8
July 24-28 2017	Forest mapping, remote sensing and monitoring. – 2nd Workshop. Project REDD+ Uy-FAO	18	12	6
December 18-22 2017	Tools for the approach and analysis of drivers of deforestation and forest degradation.	13	4	9
April 12-June 7 2018	Basic Geographic Information Systems, Applied Forest profile	20	12	8
September 29 and 30 2018	2 <sup>nd</sup> National Native Forest Meeting	32	-	-
December 10-14 2018	Financial and institutional mechanisms for REDD+	28	10	18
December 24-27 2018	Restoration Opportunities Assessment Methodology (ROAM)	30	14	16
March 5-9 2019	Google Earth Engine Training	11	6	5
March 6 2019	Google Earth Engine Training	28	19	9
September 9-12 2019	i-Tree: a tool for the assessment of ecosystem benefits of urban trees in Uruguay	14	9	5
September 9-12 2019	Digital Processing of Satellite Images	2	1	1
April 4 2019	Agro-ecological Agroforestry Systems	125	84	41
May 4 2020	Basics of the state of conservation of the native forest Seminar	42	20	22
July 17 and 18 2020	Use of Drones in forest monitoring	18	11	7
June 25 2020	Use of Terrestrial Laser Scanning (TLS) for biomass information calculation	17	10	7
November 23 2020	Processing of images obtained by drones using the Structure From Motion (SFM) technique	18	11	7
November 26 2020	TLS data processing	18	11	7
October 2 2020	Drone and TLS data processing	15	8	6
October 21 2020	Seminar: “Opportunities and challenges of the use of native forest and its species, integrated into livestock farming in Uruguay”	105	64	41
October 30 2020	Workshop: “Opportunities and challenges of the use of native forest and its species, integrated into livestock farming in Uruguay”	28	18	10



## Component 2: REDD+ Strategy Preparation

### 2a: Assessment of Land Use, Land-Use Change Drivers, Forest Law, Policy and Governance

#### *Corresponds to Indicators 11-15 of the FCPF Assessment Framework:*

Uruguay is a very unique case within the REDD+ framework, different from the majority of REDD+ countries. Uruguay is a country with low native forest coverage and these forests are protected by Law, consequently deforestation events are minimal. The main problem is associated with degradation processes and the opportunity for REDD+ in Uruguay lies in the increase of carbon stocks, restoration and sustainable management of its forests.

In this context, in the REDD+ readiness framework, several studies completed that contributed to the understanding of the causes of deforestation and degradation, such as the barriers to the increase of carbon stocks. These studies have been coordinated and carried out in close collaboration with the expert teams of governance institutions.

Specifically for the writing of the report on drivers we relied on an analysis of the recent historic tendencies of land use (Figure 4) completed based on the existing literature, interviews with key stakeholders, as well as input obtained in a participative manner (**Indicator 11**). The following presents a summary of the analysis of drivers for the country.

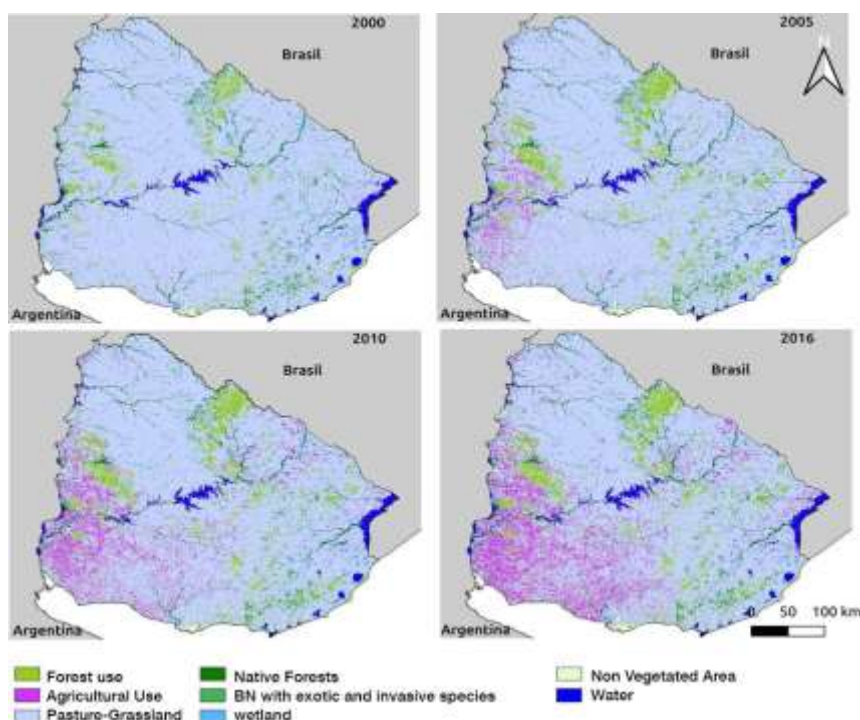


Figure 4 – Recent historic tendencies in land use, Uruguay

Source: Deliverable 7: Final report with all the required information and in order to include deforestation and degradation activities and the increase of carbon reserves in the national FREL, INIA (2020)

The main direct causes of deforestation and degradation that lead to deforestation and/or degradation or constitute barriers to the increase of carbon stocks in the country are presented in the following Table. An initial assessment, carried out by the judgment of experts and taking into account the information collected in the “Consultation workshops on the causes of deforestation, degradation and benefits of the forest”, resulted in the contribution of each one of the causes of deforestation and degradation (in percentages). It must be noted that the country continues to evaluate the causes, in particular the interrelationships between the principal direct causes of deforestation and degradation, as well as long term implications for forest laws and policies (described below) (**Indicator 12**).

Driver	Percent of Deforestation (%)	Percent of Degradation (%)
Use and Commercialization of wood products originating from the BN	45	30
Productive activities of the country Agriculture, livestock and forestry	50	
Aggregate extractions	5	4
Infrastructure projects		
Urban expansion and pressure on the areas surrounding the BN		
Tourist use of the forest		
Degradation by Invasive Alien Species (EEI)		65
Fire		1
Application of agrochemicals		

Table 8 - Contribution of the different drivers of deforestation and degradation

- The country’s productive activities agriculture, livestock and forestry

The change in land use (forest-agriculture) carried out in the last century represents a significant impact in terms of loss of area and biodiversity, mainly in forests of the coast park and river forests. Additionally, impacts to the native forests near populated centers and cities (illegal timber logging) is observed, causing degradation and reduction of biodiversity and genetic variety. The intensification of some productive processes, generally agricultural and also livestock related affect the native forest.

- Use and Commercialization of wood products originating from the BN

One of the principle motives for cutting down the native forest is for its use as caloric energy (wood), due to the properties of its wood of possessing high caloric power, being easy to access in rural areas and being preferred for cooking food, especially the traditional food of the country (“*asado*” or grilled meats).

- Extraction of aggregates

This type of exploitation mainly affects gallery or river forests, where the pulling of the currents makes sand banks in certain places, which later allows for their extraction for use in construction, leading to erosion in the margins of the beds with the consequent impact on the river forest. There are also cases in which quarries are made, for example, for the

extraction of ballast and the tree cover it deforested or the expansion of it is limited. The ballast that is extracted from said quarries is mainly used for rural department roads.

- Infrastructure projects

Currently we observe the carrying out of infrastructure projects that also affect the area of the native forest, such as the construction of highways and bridges, hydraulic engineering projects (dams, lakes, embankments, canals or drains) and strung at high tension, in which the native forest which interferes with those projects.

- Urban expansion and pressure on areas surrounding the BN

Many of the country's cities were founded on or near a course of water bringing along with it, pressure from the expansion of the urban infrastructure and by other greater affectation pressure regarding the use of products originating from the forest. The magnitude of this pressure and degradation in areas surrounding cities is related to the size of the urban center and the distance of it from different areas of the forest. In turn, we observe that the radius of influence is growing because it has more means of accessing different areas. In these vicinities, whose geographic locations puts them in an area of natural richness associated with rivers, the development of those urban centers contributes to this degradation and improper use. We observe this activity also in the coastal zone, exerting a great pressure on the Psammophile Forest. There is an important competition between the real estate-touristic investment (due to being an area of great touristic potential) and the relict native Psammophile forest, distributed in patches.

- Touristic use of the forest

There are impacts to the native forest in places where tourism activities occur and these sites are used year after year for this purpose. Tourist activity on the margins of the waterways in Uruguay is social and widely diffused and camping and sports activities taking place along the wide hydrographic network belonging to the country are often found, easily accessible, in private as well as state properties. This tourist activity brings an intensive use of the place causing certain impacts that can be categorized as degradation.

- Degradation by Invasive Alien Species (EEI)

The presence of EEI is the second cause of the loss of biodiversity and carbon from native forests, after the loss of habitats. The reduction to the biodiversity directly affects the forest processes and therefore the capacity to provide ecosystem services. Biodiversity provides essential roles in the ecosystem of the forests, such as pollination, decomposition, seed dispersal, reduction of pests and sicknesses. Despite being a very relevant issue for Uruguay, the expansion of said organisms in the native forest ecosystems is not clear nor calculated, nor is the susceptibility or grades of vulnerability of them. The process originates in forest or ornamental species plantations in proximity to the indigenous forest, whose seeds are disseminated by different natural agents (birds, wind, water, animals) and they find an environment in the forest which is conducive to their development and later propagation.

- Fire

Current legal regulations establish measures and sanctions on certain activities that carry a risk of forest fires; Decree No. 436/007 from November 19 2007, Article 2, establishes that

beginning December 1 of each year until the second half of April of the following year, it is prohibited to have fires and burns of any type outdoors in the entire National territory. In Uruguay there is an widespread cultural practice of burning surplus dried fodder from the summer season to encourage the regrowth of autumnal fodder, being a threat to the surrounding native forest. The fire reduces the resilience of the ecosystems, and produces changes or losses in the ecosystem services.

- Application of agrochemicals

The application of herbicides is regulated by legislation at national level and there are specified distances and buffer zones of protection (MGAP Health Director, MVOT Land Planning Plans, and DINAGUA/MA watershed action plans). Despite this, in the consultation workshops held in the framework of the consultation process they put forth cases where there could be cases of forest degradation from agrochemicals, as well as the existence of complaint records to the DINACEA office, due to this type of situation

In spite of the causes mentioned previously, that contribute both to deforestation and degradation of the forest, but also act as barriers to the increase of carbon reserves, during the REDD+ readiness process the need to better evaluate the barriers to the increase of carbon reserves was identified, in the context of conditional forestry goals included in the First NDC of Uruguay:

- Mitigation Goals to 2025 Conditional on additional specific means of implementation:
  - Increase the area of the native forest from the year 2012 (892,458 ha) by 5%
  - Increase the area of forest plantations with shade and shelter from the year 2012, including silvopastoral, (97,338 ha) by 25%

In Appendix II a proposed plan of action is presented to examine and better evaluate the major barriers and opportunities for increasing carbon stocks. Also, the action plan will seek to evaluate the interrelations of the principle direct causes of deforestation and degradation, as well as long term implications for forest laws and policies (described below) (**Indicator 13**).

### *List of the Framework of Policies and Laws Related to REDD+*

#### ***Corresponds to Indicator 15 of the FCPF Assessment Framework:***

REDD+ is sustained in specific national legislation in the matter and in the group of institutions responsible for the design and execution of policies and programs related to climate change, the conservation of the environment and biodiversity, and forest preservation. Its regulatory and institutional context in Uruguay is presented below, in chronological order of the adoption of the law.

#### **Forest Law**

Forest Law (No. 15.939) from 1987<sup>12</sup>, with its amendments and regulations, constitutes the general legal framework in which forest policy and native forest conservation are included. This law has a dual function: on the one hand, to encourage and promote forest plantations in

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<sup>12</sup> Available at: <https://www.impo.com.uy/bases/leyes/15939-1987/17>

productive activity, and, on the other hand, to establish the foundation for the conservation of the native forests.

The forests are defined by the Forest Law as those “vegetal associations in which trees of any size predominate, exploited or not, and that are in condition to produce wood or other forest products or of exerting any influence on soil conservation, in the hydraulic system or in the climate, or that provide shelter or other benefits of national interest”. Then, by means of its regulations<sup>13</sup>, it limits the definition of forests to the vegetal associations that in addition to the characteristics established by the Law, have a minimum area of 2,500 m<sup>2</sup>. In particular, for the native forest, its registry is enabled as long as it has a density greater than 200 trees per hectare and a canopy that is greater than 50%<sup>14</sup>.

The Forest Law classifies particular forests into “general”, “production” and “protection”<sup>15</sup>. The native or indigenous forest that meets the above definition is categorized as a “natural protective” forest, and the cutting or any operation that impinges upon its survival are prohibited. However, the following exceptions are established:

- (i) When the exploited product is destined for domestic use and the wiring of the rural establishment it pertains to, and
- (ii) When an authorization from the General Forest Directorate is mediated based on an expert report in which the causes that justify the cutting as well as the exploitation plans used in each case. The destruction of natural palm groves is also prohibited.

Through this legislation, fiscal benefits were established for those lands occupied by natural forests declared as protective, and basic requirements were set for the presentation of management and ordination plans, and sanctions for cases of violations of infractions of the Law and its regulations.

### **General Law of Protection of the Environment**

Protection of the environment has been declared an area of general and national interest in the country by article 41 of the Constitution of the Republic and by the General Law of Protection of the Environment (No. 17.283 from 2000)<sup>16</sup>. This Law establishes the prevention of any type of degradation, destruction or pollution, as well as negative or harmful environmental impact, and the rebuilding of the environment damaged by human activity. Also, it enshrines the right of the habitants of the Eastern Republic of Uruguay to be protected in the joy of a healthy and

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<sup>13</sup> Decree No. 452/1988, July 6 1998, available at: <https://www.impo.com.uy/bases/decretos/452-1988>

<sup>14</sup> Tutorial on the native forest registry. Forest General Director. General Forestry Directorate. Ministry of Livestock Agriculture and Fisheries. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/comunicacion/publicaciones/manual-manejo-bosque-nativo-uruguay/4-marco-legal-estrategico/41-marco>

<sup>15</sup> Through the Forest Law, particular forests are classified into: a) Protective, when they fundamentally have the purpose of conserving soil, water and other renewable natural resources; b) Production, when they finally have principle production of wood materials and non-timber and turn out to be of special national interest due to their location or for the type of wood or other forest products that can be obtained and c) General, when they do not have the characteristics of protector or production. Additionally, in the previous classification, the protective forests can be identified as natural protector and artificial protector.

<sup>16</sup> Available at: <https://www.impo.com.uy/bases/leyes/17283-2000>

balanced environment, establishing as a fundamental duty of the State to promote a model of sustainable environmental development.

### **Goals of Sustainable Development (ODS, by its acronym in Spanish)**

ENREDD+ is aligned with the international directives agreed upon in the Sustainable Development Summit through the approval of Agenda 2030 for Sustainable Development, in September 2015.

ENREDD+ is one of the environmental policy instruments that contributes to Uruguay fulfilling the Sustainable Development Goals (ODS) numbers 13 and 15, that express that the countries that form part of the agreement must: (i): *“Take urgent measures to combat climate change and its impacts” (ODS 13); (ii) “Protect, restore and promote the sustainable use of the terrestrial ecosystems, sustainably manage forests, combat desertification and halt and revert land degradation, and halt biodiversity loss”.*

Additionally, ENREDD+ will contribute in an indirect way and with positive effects to the other ODS, highlighting among them the goals No. 6 (clean water and sanitation), No. 12 (responsible production and consumption), and No. 16 (Peace, justice and strong institutions).

### **National Biodiversity Strategy 2016-2020**

Through the ratification of the UN Convention on Biodiversity<sup>17</sup>, Uruguay has committed to biodiversity conservation, sustainable use of its components, and the fair and equitable participation of the benefits derived from genetic resources. In this framework, Uruguay has established its National Biodiversity Strategy 2016-2020<sup>18</sup> that contains twenty goals to be gradually completed, equated to the Aichi Targets that were internationally incorporated to the Sustainable Development Goals. ENREDD+ will directly contribute to achieving those national goals, which are presented in Table 7, as well as its mission of citizen awareness.

### **National Native Forest Strategy**

The National Native Forest Strategy<sup>19</sup>, approved in 2017, constitutes the forest policy's closest instrument to the REDD+ initiative. Its general objective is to conserve, manage and restore native forest. In particular, ENREDD+ is in line with five specific goals of the National Native Forest Strategy:

- (i) Improve the legal framework and funding policy related to native forest management;
- (ii) Strengthen the information and monitoring system,
- (iii) Improve forest management to maintain and increase its ecosystem services;
- (iv) Promote the economic assessment, the protection and the restoration of native forests,

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<sup>17</sup> Law No. 16.408, from 8/27/1993, Available at: <https://www.impo.com.uy/bases/leyes/16408-1993>

<sup>18</sup> Ministry of Housing, Land Planning and Environment. (2016). National Biodiversity Strategy. Montevideo, Uruguay. Available at: <https://www.gub.uy/ministerio-ambiente/politicas-y-gestion/estrategia-nacional-biodiversidad-2016-2020>

<sup>19</sup> Ministry of Livestock Agriculture and Fisheries (2018). National Native Forest Strategy. Montevideo, Uruguay. Available at: [https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/estrategia\\_nacional\\_de\\_bosque\\_nativo.pdf](https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/estrategia_nacional_de_bosque_nativo.pdf)



- (v) Improve dialogue processes and civil society participation, and educate and spread information about the importance of the native forest.

### **National Climate Change Policy (PNCC, by its acronym in Spanish)**

The National Climate Change Policy (PNCC)<sup>20</sup>, approved in 2017 by Decree No. 310/017<sup>21</sup> of the Executive Power, offers the long-term strategic framework to guide the transformations that Uruguay is traversing by confronting the challenges of climate change and variability, and attends to the international obligations assumed by the ratification of the Paris Agreement. In particular, some of the measures that the PNCC promotes in order to achieve adaptation to and mitigation of climate change are directly linked to the expected results of ENREDD+. For example:

- (i) Development of sustainable and resilient cities and communities,
- (ii) Reduction of climate vulnerability in risk zones,
- (iii) Reduction of the intensity of greenhouse gas emissions and increase carbon sequestration in agricultural production systems, including forestation,
- (iv) Increase knowledge of these phenomena by means of investigation and innovation, and
- (v) Generation and systematization of timely and accessible information for decision-making.

### **National Plan for the Environment and Sustainable Development**

As part of the planning and programming processes for environmental protection in all its dimensions, the National Plan for the Environment and Sustainable Development<sup>22</sup> was created in 2018. The Action Lines proposed for ENREDD+ will directly contribute to the achievement of some of the goals, such as:

- (i) Conserve, restore and manage in a sustainable way the ecosystems and landscape, reducing the loss of biodiversity at all levels and securing their ecosystem services (Obj. 1.2);
- (ii) Preserve water quality, conserve continental aquatic ecosystems and maintain hydraulic processes, through sustainable management models of watersheds and aquifers (Obj. 1.3),
- (iii) Incorporate the environment into the formulation, assessment, execution and follow up of the public policies on production, which permits progress toward environmental sustainability (Obj. 2.1),
- (iv) Promote sustainable productive practices that reduce the environmental impact of agricultural activities (Obj. 202);
- (v) Strengthen the management trainings in the territory, linking national and local environmental management (Obj. 3.1),

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<sup>20</sup> Eastern Republic of Uruguay. (2017a). National Climate Change Policy, Ministry of Housing, Land Planning and Environment. Available at: [https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Politica\\_CC\\_1.pdf](https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Politica_CC_1.pdf)

<sup>21</sup> Available at: <https://www.impo.com.uy/bases/decretos/310-2017>

<sup>22</sup> MVOTMA (2019). National Plan for the Environment and Sustainable Development. MVOTMA: Montevideo. Available at: [https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Plan\\_Nacional\\_Ambiental\\_para\\_el\\_Desarrollo\\_Sostenible\\_.pdf](https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Plan_Nacional_Ambiental_para_el_Desarrollo_Sostenible_.pdf)

- (vi) Generate and incorporate information and knowledge for environmental management (Obj. 3.2),
- (vii) Deepen education and communication about protecting the environment (Obj. 3.3),
- (viii) Deepen participation and access to justice (Obj. 3.4).

#### International Conventions adopted by Uruguay

Uruguay ratified the United Nations Framework Convention on Climate Change (CMNUCC, by its acronym in Spanish, UNFCCC in English) in 1994<sup>23</sup>, the Kyoto Protocol (KP) in 2000<sup>24</sup> and the Paris Agreement in 2016<sup>25</sup>. Additionally, Uruguay ratified the application of the UN Convention on Biological Diversity (CBD) in 1993<sup>26</sup>, and their AICHI Targets. Accordingly, the country adopted the Convention to Combat Desertification and Drought (CCD), the RAMSAR Convention on Wetlands<sup>27</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1974<sup>28</sup>.

The implementation of the Strategic Lines that ENREDD+ is compromised of is aligned with the fulfillment of Uruguay's international commitments by means of national goals, some of which are summarized in the following table.

Table 7 - International commitments that the country has made related to native forests.

National goal	Commitment:
<b>Mitigation to 2025:</b> Maintain 100% of the native forest area from the year 2012 (849.960 ha) Increase by 5% the native forest area from the year 2012 (892.458 ha) <b>[Conditional on additional specific means of implementation]</b> Maintain 100% of the shade and shelter forest plantations area of the year 2012 (77,790 ha) Increase by 25% the shade and shelter forest plantations area from the year 2012, including silvopastoral systems, (97,338 ha) <b>[Conditional on additional specific means of implementation]</b>	NDC (Paris Agreement) <sup>29</sup>
Develop incentive proposals for conservation of pastures, wetlands and native forests to be implemented in all of the national territory.	AICHI Target Nº 3
Know the conservation status of the country's main continental ecosystems (pastures, forests and wetlands) by means of the creation of Red Lists of ecosystems.	AICHI Target Nº 5
Reduce by at least 50% degradation and fragmentation levels of the country's main continental ecosystems (pastures, forests and wetlands).	AICHI Target Nº 5
Reduce pressure on the ecosystems most vulnerable to climate change, particularly the marine and coastal zone, forests and pastures.	AICHI Target Nº 10
Conserve at least 15% of the continental area and 2% of the marine area by means of the National System of Protected Areas (SNAP, by its acronym in Spanish) and other measures of conservation based in the areas.	AICHI Target Nº 11

<sup>23</sup> Law Nº 16.517 of 1994. Available at: <http://www.impo.com.uy/bases/leyes/16517-1994/1>

<sup>24</sup> Law Nº 17.279 of 2000. Available at: <https://www.impo.com.uy/bases/leyes/17279-2000>

<sup>25</sup> Law Nº 19.439 of 2016. Available at: <https://www.impo.com.uy/bases/leyes/19439-2016/1>

<sup>26</sup> Law Nº 16.408 of 1993. Available at: <https://www.impo.com.uy/bases/leyes/16408-1993>

<sup>27</sup> Law Nº 15.337 of 1982. Available at: <https://www.impo.com.uy/bases/decretos-ley/15337-1982>

<sup>28</sup> Law Nº 14.205 of 1974. Available at: <https://www.impo.com.uy/bases/leyes/16408-1993>

<sup>29</sup> Eastern Republic of Uruguay. (2017b). First Nationally Determined Contribution to the Paris Agreement, Ministry of Housing, Land Planning and Environment. Available at: [https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Politica\\_CC\\_1.pdf](https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Politica_CC_1.pdf)



National goal	Commitment:
Identify the ecosystems most vulnerable to climate change, those with greatest contribution to the adaptation and mitigation of climate change, and design strategies for their restoration and conservation.	AICHI Target Nº 15

Finally, ENREDD+ is aligned with: (i) The Strategic Plan for the National System of Protected Areas 2015-<sup>30</sup>, through the improvement of forest management, processes of citizen and anticipated stakeholders' awareness and education, the strengthening of the information systems, the generation of knowledge that will fuel the design, planning, management and monitoring processes of the natural protected areas, (ii) The National Water Policy<sup>31</sup>, through restoration and native forest management actions that impact the conservation of the watershed ecosystems, (iii) National Adaptation Plan to Climate Variability and Change for the Agricultural Sector, which projects actions for sustainable management of native forests, other native forested formations and native trees outside of forests, and ecosystem services that it provides, such as the generation of knowledge that enables the strengthening of native forest policy design.

Taking into account the whole framework of policies and laws related to REDD+ (described above), studies have been developed that have contributed to understanding the aspects associated with forest laws, policies and governance questions, assessment of ownership and property of pertinent lands, rights to natural resources, means of subsistence, among others (**Indicators 11 to 15**). The documents are mentioned below:

- Fiscal analysis associated to the native forest<sup>32</sup>
- Information analysis on infractions of forest regulations related to native forest for the period 2000-2016<sup>33</sup>
- Land and native forest ownership in Uruguay<sup>34</sup>

<sup>30</sup> Ministry of Housing, Land Planning and Environment. (2015). Strategic Plan 2015 – 2020 National System of Protected Areas of Uruguay. Available at: [https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Plan\\_Estrategico\\_2015-2020\\_SNAP\\_compressed.pdf](https://www.gub.uy/ministerio-ambiente/sites/ministerio-ambiente/files/documentos/publicaciones/Plan_Estrategico_2015-2020_SNAP_compressed.pdf)

<sup>31</sup> National Water Policy, Law Nº 18.610, Eastern Republic of Uruguay, September 15 2009. Available at: <https://www.impo.com.uy/bases/leyes/18610-2009>

<sup>32</sup> Project REDD+ Uruguay (2019). Fiscal analysis associated with the native forest. Boccardo, A., Chiesa, V., García de Souza, M. L., Martino, D., Olivera, J. y Calleja, A. L. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: [https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/4.%20Análisis%20tributario%20asociado%20al%20bosque%20nativo%202019-10-08\\_%20FINAL\\_con%20autorías.pdf](https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/4.%20Análisis%20tributario%20asociado%20al%20bosque%20nativo%202019-10-08_%20FINAL_con%20autorías.pdf)

<sup>33</sup> Project REDD+ Uruguay (2019). Information analysis on infractions of forest regulations related to native forest for the period 2000-2016. Baccino, E., Boccardo, A., Chiesa, V., García de Souza, M.L., Méndez, A., Olivera, J y Martino, D. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/10.%20Infracciones%20sobre%20el%20bosque%20nativo%20para%20el%20periodo%202000-2016.pdf>

<sup>34</sup> Project REDD+ Uruguay (2020). Land ownership and native forest in Uruguay. Chiesa, V., Rodríguez, P., Gasparini, K., García, M.L., Olivera, J., Rama, G. y Martino, D. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at:

- Analysis of Invasive Alien Species (EEI) in Native Forest of Uruguay, based on National Forest Inventory Plots (IFN, by its acronym in Spanish)<sup>35</sup>
- The business sector's perception of emissions, their mitigation and compensation<sup>36</sup>
- Analysis of the consumption of firewood from native species in Uruguay<sup>37</sup>
- Input for the discussion of a concept of native forest and aspects to take into account in its management in the REDD+ framework.<sup>38</sup>
- Assessment of national capacities for the production of native species and scenarios of potential demand for restoration<sup>39</sup>
- Analysis of native forest area in National Institute of Colonization properties.
- Invasive alien species monitoring in native forest of Uruguay by means of remote sensing.<sup>40</sup>

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[https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/9.%20Tenencia%202020-07-29%20FINAL\\_con%20autorias.pdf](https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/9.%20Tenencia%202020-07-29%20FINAL_con%20autorias.pdf)

<sup>35</sup> Project REDD+ Uruguay (2019). Analysis of Invasive Alien Species (EEI) in Native Forest of Uruguay, based on National Forest Inventory Plots (IFN). García de Souza, M. L., Justo, C., Miguel, C. y Martino, D. . Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/3.%20Análisis%20de%20las%20Especies%20Exóticas%20Invasoras%20%28EEI%29%20en%20Bosques%20en%20base%20a%20IFN.pdf>

<sup>36</sup> Project REDD+ Uruguay (2020). The business sector's perception of emissions, their mitigation and compensation. Chiesa, V., Guanche, V., Martino, D., Alonso, F., Porzecansky, R. y Prato, D. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/comunicacion/publicaciones/percepcion-del-sector-empresarial-uruguay-sobre-emisiones-su>

<sup>37</sup> Project REDD+ Uruguay (2020 Analysis of the consumption of firewood from native species in Uruguay. Chiesa, V., Justo, C., Martino, D., Alonso, F., Fraga, V., Guanche, V., De Murcio, Rosina., Porzecanski, R., Prato, D. y Riaño, M. E. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/8.%20Análisis%20del%20consumo%20de%20leña%20de%20especies%20nativas%20en%20Uruguay.pdf>

<sup>38</sup> Project REDD+ Uruguay (2020 Input for the discussion of a concept of native forest and aspects to take into account in its management in the REDD+ framework.. Etchebarne, V., Bernardi, L., Justo, C. y Martino, D. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/12.%20Insumos%20para%20la%20discusión%20de%20BN%20y%20aspectos%20para%20la%20gestión%20en%20REDD%2B.pdf>

<sup>39</sup> Project REDD+ Uruguay (2020). Assessment of national capacities for the production of native species and scenarios of potential demand for restoration. Justo, C., Garrido, J y Martino, D. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/5.%20Diagnóstico%20capacidades%20nacionales%20y%20escenarios.pdf>

<sup>40</sup> Project REDD+ Uruguay (2020). Invasive alien species monitoring in native forest of Uruguay by means of remote sensing. Olivera, J.M., Riaño, M.E., Etchebarne, V., García de Souza, M.L. y Justo, C. Ministry of Livestock, Agriculture and Fisheries – Ministry of Housing, Land Planning and Environment. Montevideo. Available at: <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/sites/ministerio-ganaderia-agricultura-pesca/files/documentos/publicaciones/6.%20Monitoreo%20de%20Especies%20Exóticas%20.pdf>

One not so trivial piece of information that is concluded in the land and native forest ownership in Uruguay document is that there is legal clarity and legal in the issue, and it contributes a very different view compared to other countries of the region. There is a perfectly delimited and current land registry, which lets us know which roll any part of the land belongs to and what are its borders along with other relevant information. This information, combined with the information that comes from the Register of Real Estate, enables access to other information such as property ownership, liens, etc. There are no major ownership conflicts beyond individual situations, for example such as inheritances, for which the regulations provide resolution mechanisms that guarantee the rights of all parties (**Indicator 14**).

However, the country does not have a definition for “carbon ownership / rights to carbon”. Therefore, it is necessary to continue looking into national research in this area. In Appendix II a plan of action to identify and define “carbon ownership / rights to carbon” is presented, considering in particular the analysis of recent historic tendencies of land use (including traditional) and property assessment and land titling, rights to natural resources, livelihoods (including traditional and customary), forest law, policies and questions of governance (**Indicator 14**).

## 2b: REDD+ Strategy Options

### *Corresponds to Indicators 16 to 18 of the FCPF Assessment Framework:*

As was mentioned earlier, the case of Uruguay is very unique within the REDD+ framework, different from the majority of REDD+ countries. Uruguay is a country with low native forest coverage and these forests are protected by Law, so deforestation events are minimal. The main problem associated with degradation process and the opportunity for REDD+ in Uruguay is in the increase of carbon stocks, restoration and sustainable management of its forests.

With that in mind, the National Strategy for Reduction of Emissions from Deforestation and Forest Degradation (ENREDD+) seeks to create the necessary conditions to implement native forest management at a landscape scale, which would result in a reduction of emissions coming from deforestation and forest degradation and an increase of their carbon stocks. Additionally, ENREDD+ has the objective of maximizing the co-benefits or multiple benefits. These are the environmental and social benefits that the forests provide to society beyond the absorption and storage of carbon. Through ENREDD+, the aim is to prioritize the recuperation, conservation or increase of those forests which favor the maintenance of multiple benefits prioritized by Uruguayan society (e.g., water quality, biodiversity, etc.).

As was already mentioned in the sub-component “1a. National Coordination Mechanisms for REDD+”, during both the design and the future implementation of ENREDD+, decision-making at the political and strategic level is framed in the REDD+ Policy Committee and the Technical Committee.

ENREDD+ is presented in strategic lines for which a series of results and actions and measures are detailed. The great challenge for approaching the causes of degradation and deforestation detailed in the previous section is the origin and the confluence of direct and indirect causes.

ENREDD+ is organized into four strategic lines that address the issues identified as national level priorities in the framework of the development of this native forest and climate change strategy. In some cases with specific measures that can be associated with a concrete cause of degradation and deforestation and in others with cross-cutting measures, this means that they contribute to all of the causes of the great majority of them in the understanding that they seek to address cultural factors or factors of regulatory and oversight framework that will finally have a positive repercussion in addressing the direct causes.

The strategic lines that make up ENREDD+ are:

- Native forest management, other forested formations, native trees outside of forests and urban woodlands.

In the forest management framework in Uruguay it is established in Forest Law Nº 15.939 and foreseen in a (voluntary) register of forests and management plans before the DGF of the MGAP. In turn, the MA, through its jurisdiction in national environmental policy matter, as well as other institutions, (Departmental City Councils, among others) find themselves involved in native forest management.

In that way, in the framework of a REDD+ mechanism, the strategy is guided towards an integral and multifunctional vision of the forest, housed in a landscape where it constantly interacts with rural productive systems and urban spaces. Important benefits and ecosystem services emerge from this interaction, which are used and valued by diverse stakeholders in the territory. The continuous area of the forest along with the patches and dispersed trees are relevant elements for the conservation and increase of carbon stocks, as well as for the maintenance of connectivity at landscape level and for their ecological value for biodiversity conservation. This implies considering both the native forest and other native tree formations and native trees outside of forests in the management.

From a REDD+ perspective, for management and planning at local and landscape levels, it is paramount to prioritize the role that the native forest has as a carbon sink and the multiple benefits that it provides in their interaction with social, cultural and economic aspects. The inclusion of the social dimension lends more validity to the technical dimensions through the involvement of civil society in identifying and prioritizing these benefits, their threats and their magnitude and thus understand the changes in future scenarios. These benefits go from carbon sequestration to the provision of shade for cattle, provision of fruits and wood, recreational spaces, flood regulation, being an important component in cities to buffer and minimize the effects of extreme climatic events and high temperatures in summer.

The sustainable management of the forests is supported in an inclusive understanding, generated by scientific investigation, such as the product of expert-scientific exchange and other sources of information, originating from the experience of institutional management, civil society and/or popular tradition. This generation of knowledge should be permanent, fueled by the interaction between different disciplines and the results must contribute to establish better strategies for sustainable management, monitoring and control of the forests. For that there must exist a robust system of information that offers necessary information for forest management.

In order to ensure the conservation and expansion of these ecosystems, as a way of fulfilling the mitigation objectives linked to the native forest formulated by the country, as well as the provision of ecosystem services of high relevance, an efficient, transparent, informed and sustainable management is required, that does not just ensure the maintenance and improvement of the environmental, sociocultural, and economic roles, but also promotes and incentivizes, by means of different mechanisms, the increase of the area and, by extension, the increase of its carbon stocks.

Thus, with this strategic line we hope to achieve a management of the native forest and trees outside of forests in such a manner that promotes its valuation, conservation and restoration; keeping in mind and prioritizing its importance as a carbon sink and the minimization of GHG emissions due to processes of deforestation and degradation, such as paying special attention to the ecosystem services that it provides within the landscape, both rural and urban. It is expected to contribute to a regulation that guarantees the maintenance of the area, and promotes its increase as a means to conserve and sequester carbon, and with the goal of fulfilling the contributions determined by Uruguay for achieving the objectives of the Paris Agreement.

- Incentives for the maintenance and increase of the native forest area and associated ecosystem services.

The incentive mechanisms to promote the recovery of the forested masses, the increase in the forest areas and its improvement in terms of carbon and the provision of multiple benefits, are frequently used tools at international and regional level. This type of mechanisms are, additionally, strongly associated with the logic underlying REDD+. The incentives form a part of the array of policy instruments, along with instruments of regulation and control.

Within the incentives, it is necessary to distinguish those that are specific to the REDD+ mechanism from other instruments that may be aligned with REDD+ objectives. In Uruguay, an instrument already in existence is identified regarding tax deductions that aim to compensate the protection of the forest and that are found in the sphere of the Forest Management System in charge of the DGF.

By means of this result, we aim to deepen the line of work established in the Forest Law and complement it creating incentives that contribute to the development of REDD+ activities that provide for the conservation and expansion of forest ecosystems to the effects of incrementing carbon reserves in BN, OFBN and ANFB, as well as in trees in urban zones, and to encourage the multiple benefits of them.

- Investigation.

In the current context of global change, it is necessary to manage and conserve the BN, OFBN, and ANFB, adapting to the variability and new challenges that present themselves. For this, the decision-making and management planning, as well as the plans for awareness and training about the importance of these systems, must incorporate learning and new knowledge based on evidence.

In Uruguay there are many works that deal with the phytosociological profile of the native forest (e.g., Brussa et al. 1993; Gautreau & Lezama 2009, Ríos et al., 2010; Delfino et al., 2011;

Guido & López, 2011) as well as the description of its state (e.g., Laufer et al., 2015), in any case the lack of national level studies that interrelate different aspects of the BN, OFBN, and ANFB is identified as limiting, like: natural dynamics, carbon dynamic, climate variables, interactions with humans and particularly with productive systems, among others.

Although REDD+ is a mechanism focused on the mitigation of climate change, the very nature of the mechanism implies considering other aspects, beyond its relevance as a carbon sink, such as the synergies with the adaptation to climate change and the multiple social and environmental benefits associated with the forest. In this way, this LE articulates and contributes to other national level policies and plans, like the National Forest Strategy, National Climate Change Policy, Nationally Determined Contribution, National Biodiversity Strategy, National Environmental Plan, SNAP Strategic Plan, National Water Policy, and progress of the forest bio-economy Project 2050.

The generation of knowledge proposed in this LE is aligned with various goals and objectives linked to the management in the framework of the different policies, strategies and plans mentioned. The creation of lines of investigation is proposed for the guiding of restoration interventions, recovery and increase of native forest area with the objective of conserving and increasing its carbon stocks, the coordination of the conservation with the production, and the adaptation to climate variability and change. In order to positively impact the management of these systems, such as the multiple benefits that the BN, OFBN, and AFB provide.

In summary, the anticipated results of this LE have the objective of generating knowledge that contributes input for the sustainable management and conservation of the BN, OFBN, and AFB. Being key for the Management LE and the Citizenship LE, and generating contributions to the different Strategic Lines pertaining to ENREDD+.

Given the breadth of issues, the inherent dynamics of the native forest and management needs in the short term and medium term, this line puts forward anticipated results in different time horizons that give continuation to the progress of investigation achieved during the readiness phase. In the short term, it is expected to expand the existing knowledge at national level about forest ecology, the dynamics of carbon, the interaction with other production systems and the benefits that the FN, ANFB and OFBN provide, in particular with reference to their role in the protection of water quality.

In the long term, we hope to establish a permanent interdisciplinary research program about the native forest in Uruguay, that would link different teams and research institutions and other societal stakeholders with their wisdom and knowledge, and that would have funding channels that ensure the continuity of the research activities over time.

- Environmental citizenship and native forest: knowledge, participation and dialogue.

Part of the causes of degradation and deforestation of the native forest are associated with the low valuation, knowledge, utilization of this ecosystem nationally. This strategic line focuses on the indirect and underlying causes identified in the document “Analysis of the drivers of deforestation and forest degradation in Uruguay” (Project REDD+ 2020d).

This report highlights cultural factors as indirect causes (point 8.3) linked with a “low valuation of the native forest in society”, as well as the scarce knowledge associated with sustainable management, progression of invasive alien species and questions closely linked



with the lack of research and technical capacities (point 8.4) for sustainable forest management.

The aim of this strategic line is to educate, train and empower citizens about the native forest and REDD+, including aspects linked to its conservation, valuation of its environmental services and good management practices; putting special emphasis on the elements linked to avoiding its degradation and deforestation, the optimization of its social and productive roles in the face of a context of climate variability and change: its capacity for the national adaptation before extreme meteorological events and its role in the capture, maintenance and increase of carbon stocks, both central elements in the Uruguay ENREDD+ framework.

To this effect, three anticipated results have been proposed: (i) Greater understanding and awareness by the citizens with respect to environmental issues and especially to those related to the native forest and REDD+, (ii) Interest groups trained in native forest and REDD+, (iii) Technical leaders from national and subnational government trained in native forest and REDD+.

Delving into the topic of the native forest and REDD+ in formal and informal educational environments at multiple levels, including participation and involvement strategies in the management, control and improvement of the native forest actions that arise from the rest of the REDD+ strategic lines is proposed.

Training of stakeholders linked to forest management is established as a special interest, at the community level, producer groups from rural organizations, cooperatives and nursery growers that can be recipients of trainings to improve management and forest conservation practices. In addition, public and private companies are also considered recipients of training actions which, through a REDD+ mechanism in Uruguay, can develop opportunities to minimize the carbon print of their sector in line with the commitment to the mitigation of greenhouse gases that the country has internationally in the framework of the Paris Agreement.

The strengthening of decision makers, stakeholders and managers of public institutions associated with policy design, plans and territorial instruments in issues linked to the native forest, ecosystem services, landscape, and connectivity are projected as elements that contribute to a social, productive and environmental development with greater equity, resiliency and low-carbon.

The environmental citizenship strategic line will be supplemented with the actions linked to other REDD+ strategic lines. The valuation of the native forest by citizens has a synergetic effect on elements of forest governance enabling aspects of citizen monitoring, involvement in complaint systems, participation in actions prone to the conservation and restoration of wooded ecosystems that are developed upon the execution of ENREDD+.

Some of the measures presented in the Strategy are broad and are presented as points to design during the implementation of ENREDD+. There are concrete measure and measures that will be defined during the implementation, such as the plans and programs that are expected to be designed and implemented. During its implementation, the country is going to look to eliminate possible inconsistencies between the prioritized options of the REDD+ strategy and policies or programs in other sectors related to the forest sector (for example, agriculture). In Appendix II

an action plan is proposed for identifying possible inconsistencies and elaborate an “agreed upon timeline and established process for resolving the inconsistencies and integrate the REDD+ strategy options with the relevant development policies” (Indicator 18).

Table 8 is presented below with the summary of the action lines, their results and relationships with FRL and their actions and measures.

The country still has not been able to determine “the potentials of emission reduction and/or the increase of carbon sequestration expected from the interventions”. In Appendix II a proposal for an action plan to identify the best methodologies for the calculation of the emission reduction potentials and/or the increase of carbon sequestration and for the implementation of a strategy to use the results in the process of Reevaluation of the action lines prioritized in ENREDD+ is presented (Indicator 16).



Table 8 - Summary of ENREDD+ Strategic Lines, results and products

Strategic line	Result	Relation to FRL activities		Product / Action
Management of the native forest, other forest formations, native trees outside of forest and urban woodlands.	1. The BN, OFBN, and ANFB are sustainably managed at the country level.	Deforestation	1.1	Guidelines for Incorporating the landscape focus in plans and authorizations related to the BN
			1.2	Periodic analysis of the information contributed by the database of the Register and Management Plans.
			1.3	Plan with measures to develop the native forest register.
			1.4	Inter and intra institutional coordination mechanisms for coherence in the authorization processes of institutions with powers and those related to the native forest.
			1.5	Technological development for the improvement of management, conservation and increasing the area of BN, OFBN and ANFB.
			1.6	Vegetable matter to carry out adequate practices of conservation, restoration and the increase of areas to each ecoregion of the country.
			1.7	Guide with technical criteria for the evaluation of forest management plans in lands with agricultural use capacity.
	2. Infractions in the BN, OFBN and AFNB are reduced due to the strengthening of the oversight system.	Deforestation	2.1	The Early Alert System (SAT, by its acronym in Spanish) informs the oversight system about unauthorized losses of coverage.
			2.2	Computerized system for tracking wood products from the BN.
			2.3	Resources and specialization of the inspection body in charge of oversight and training for the rest of the stakeholders with oversight power.
			2.4	Mechanisms that permit different stakeholders from society (both national and departmental institutions and civil society) to contribute to the detection of infractions committed to the BN.
			2.5	Oversight strategy that includes periodic oversight plans and protocols for land, transportation and barracks inspections.
			2.6	Registry of forest operators.
			2.7	Stipulated response mechanism stipulated in case of infractions.
			2.8	Criteria to track sanctions that include restoration action obligations.
			2.9	Dissemination plan for oversight activities.
	3. Native Forest Formations (OFBN) and Native Trees Outside of Forests (ANFB)	Increase of carbon stocks	3.1	Methodology for national and property level monitoring of OFBN and ANFD made and incorporated into the Forest Management System platform.

Strategic line	Result	Relation to FRL activities		Product / Action
	are considered in the management in a way to maintain carbon and the multiple benefits they provide.		3.2	Regulation that incorporates the concepts of BN, OFBN and ANFB to the regulatory framework.
			3.3	Incentives for sustainably managing, conserving and increasing the OFBN and ANFB areas.
	4. Native forest managed in a comprehensive way with the existing productive systems and providing ecosystem services.	Deforestation Degradation Increase of carbon stocks	4.1	Manual with recommendations for good management practices for the integration of BN, OFBN and ANFB with different productive systems.
			4.2	Plan for support of business ventures based on non-timber forest products.
			4.3	Proposal for certification or quality seal for products made under norms that take into account BN conservation and its ecosystem services (SSEE, by its acronym in Spanish).
	5. Urban woodlands and forests in urban contexts are managed considering their mitigation value and multiple benefits.	Increase of carbon stocks	5.1	Methodology for the monitoring evaluation of urban woodlands.
			5.2	Strategy for generation and enrichment of the Green infrastructure with native species for the maintenance and/or increase of ecosystem services in urban contexts.
			5.3	Linking program with the private sector for the greening of the cities with native species.
			5.4	Incentive mechanism for the increase of the presence of native species in urban areas.
Incentives for the maintenance and increase of native forest area and associated ecosystem services	1. Incentives provided for the maintenance of native forest area have a better prioritized forest conservation result and an increase in carbon stocks.	Increase of carbon stocks	1.1	Identification of key geographic areas, based on the identification of multiple benefits, that permits simultaneous benefit conservation and increase of its carbon stocks
			1.2	Mapping of stakeholders for the development of the activities in 1.1.
			1.3	Report on the incentive preferences of the beneficiaries.
			1.4	Adjustment plan in the structure of existing incentives related to native forests.
			1.5	Recommendations to increase the percentage of registered forest.
	2. Incentives provided for the increase of native forest area have as a result an integrated forest management, which leads to a better conservation of the area and a better productivity of associated systems (management integrated with productive system).	Deforestation Degradation Increase of carbon stocks	2.1	List of sites to prioritize according to a group of criteria, and activities to stimulate in them for the increase in forest area.
			2.2	Mapping of stakeholders for the development of the activities in 2.1.

Strategic line	Result	Relation to FRL activities		Product / Action
	3. Ecosystem services associated with the forest and native species in urban areas are conserved and increased, as a measure of adaptation to climate change and improvement in the quality of life of its inhabitants in the context of resilient cities.	Increase of carbon stocks	3.1	List of urban sites to prioritize according to a group of criteria, and activities to drive the increase of forest area.
Investigation	1. Inter-institutional network for the development and implementation of a strategy for research and dissemination meant to generate and systemize knowledge of BN, OFBN, ANFB and its management, consolidated and in operation.	Deforestation Degradation Increase of carbon stocks	1.1	Inter-institutional coordination space.
			1.2	Web support platform for supporting the coordination in research.
			1.3	Document of prioritization of issues to investigate.
			1.4	Research plots.
	2. Generate and make available new knowledge for improving the state of conservation or the increasing of area in the BN, OFBN and ANFB.	Degradation Increase of carbon stocks	2.1	New version of the BN Management Manual.
			2.2	Manuals for the restoration of the native forest.
			2.3	Manual of management and control techniques for different EEI.
			2.4	Good Practices Guide for different activities incorporating BN.
			2.5	Good Practices Guide for REDD+ initiatives.
			2.6	Technical reports that quantify and characterize the multiple benefits of BN, OFBN and AFBN.
	3. New knowledge generated about the content of carbon and its dynamic in the native forests of the country, with the objective of valuing its importance as a carbon sink.	Increase of carbon stocks	3.1	Carbon investigation strategy.
			3.2	Update of methodology and tools for carbon calculation.
	4. Information generated about wood and non-timber products from the BN sustainably obtained, viability of the	Deforestation Degradation Increase of carbon stocks	4.1	Report of BN wood and non-timber products.
			4.2	Analysis of viability of developing value chains.
			4.3	Prioritization document of products to develop in the REDD+ framework.

Strategic line	Result	Relation to FRL activities		Product / Action
	development of value chains and possible niche markets.		4.4	Good Management Practices Guide for prioritized products.
	5. Good genetic quality reproductive material for different restoration, forestation and reforestation programs that the REDD+ framework requires to implement.	Increase of carbon stocks	5.1	Manuals for the storage and reproduction of native woody species specimens.
			5.2	Report on genetic variability and distribution in the territory of native woody species.
			5.3	Identify established seed orchards representative of the genetic variability of the country.
Environmental citizenship and the native forest: understanding, participation and dialogue	1. There is a greater citizen understanding and awareness with regard to environmental issues, especially those linked to the Native Forest and REDD+.	Deforestation Degradation	1.1	Communication strategy about issues related to the native forest and REDD+.
			1.2	Plan for the production and circulation of audiovisuals about the native forest and REDD+.
		Increase of carbon stocks	1.3	Systemization and valuing the link, uses, traditional knowledge and good practices of native forest management associated with different stakeholders at territorial level.
	2. Interest groups trained in native forest and REDD+ contribute to the improvement of the management and conservation of the native forest and its role for the capture and maintenance of its carbon stocks.	Deforestation Degradation	2.1	Communication plan for trainings for diverse interest groups about the native forest and REDD+.
		Increase of carbon stocks	2.2	Program of contents and trainings for primary and secondary school educators, technical schools and other educators.
			2.3	Program of contents and trainings for sectors of special interest linked to the sustainable management of the native forest.
			2.4	Program of contents and training for institution leaders with jurisdiction in the prevention, control and monitoring of the native forest.
			2.5	Program of contents and training for business sector leaders.
	3. National and subnational government technicians trained in native forest and REDD+ in the design of public policies.	Deforestation Degradation	3.1	Communication plan for trainings of technical leaders from national and subnational government about the native forest and REDD+.
		Increase of carbon stocks	3.2	Training and strengthening program of technical leaders at national and subnational government level oriented towards the promotion and sustainable use of the native forest and REDD+ in the design of public policy.
			3.3	Training and strengthening program for technical leaders of city councils and municipalities for the promotion and sustainable use of the native forest and REDD+ in urban, suburban and coastal areas.

## 2c: Implementation Framework

### *Corresponds to Indicators 19 to 22 in the FCPF Assessment Framework:*

A contract was signed with the National Institute of Agricultural Research (INIA, by its acronym in Spanish) in October 2019, a working agreement in which different national institutions participated, such as the University of the Republic through the School of Social Sciences and Eastern Regional University Center (CURE, by its acronym in Spanish), the Plan Farming Institute (IPA, by its acronym in Spanish), and Vida Silvestre Uruguay (VSUY, by its acronym in Spanish, 'Wildlife Uruguay' in English). Among the regional institutions are the University of Buenos Aires (UBA), National Agricultural Technology Institute (INTA, by its acronym in Spanish) and the National Scientific and Technical Research Council (CONICET, by its acronym in Spanish). This agreement ended in February 2021.

This agreement had six large products:

1. GHG emissions and removals: The general objective of this line was to create the forest reference level (FRL) emissions / removals for deforestation and degradation activities and the increase in carbon reserves in the native forest of Uruguay and contribute to the design of its corresponding National Forest Monitoring System (SNMF, by its acronym in Spanish). The UBA, INTA, CONICET and INIA were in charge of this component.
2. Interaction with productive systems: the general objective of this line of work was to arrive at recommendations that would permit integrating the native forest in the productive management of the property. INIA along with IPA and CONICET were in charge of this component.
3. Invasive alien species (EEI): the objectives of this line were divided into two parts, on the one hand, improve the understanding of the territorial spread of the EEI and arrive at conclusions with respect to the factors that influence the entrance and spread of the principle EEI of the country, and on the other hand, investigate control mechanisms of the establishment and spread of EEI. INIA, School of Sciences and CONICET were in charge of this component.
4. Multiple benefits: the objective of this line was to characterize the role of the native forests in the provision of multiple benefits, with special emphasis on buffering capacity of nutrients originating in different contexts of ground use, as well as the benefits that the forest can provide in general. CURE, INIA and CONICET were in charge of this component.
5. State of conservation: this line of work had the general objective of developing a framework for the evaluation of the state of conservation of the forest and analyze the state in reference to different areas of interest. VSUY, INIA and CONICET were in charge of this component.
6. Forest dynamics: the general objective of this line was to increase knowledge about the different forest ecosystem dynamics in Uruguay with respect to its expansion, response to management and disturbances of different types and recovery potential with different intervention techniques, with a look toward planning interventions that contribute to its management and the recovery or restoration of the native forest. CURE, School of Sciences, INIA and CONICET were in charge of this component.

In all cases, MGAP and MA were directly involved in the progress and follow up of all of the components of the agreement.

This agreement required a very important coordination and synergy effort between the different components, as a way of ensuring the consistency of the different results and the efficiency in the use of resources. For that, definitions and sources of information for common use were discussed and agreed upon, efforts of common simple sites were coordinated, working

plans were adjusted and layers of information were identified that each component would produce for others.

During the execution of the agreement, biweekly meetings with the REDD+ project were held. The COVID-19 pandemic posed a challenge in terms of outings to the countryside for the different components, especially component 1 whose team in charge was from Argentina.

This made it so the institutional technical teams had to assume some of the final samples of this component, as a way to be able to complete the program of proposed work. In the rest of the components, the pandemic delayed many of the activities.

Below some of the details of the activities carried out in each one of the agreement's components are presented:

1. GHG emissions and removals: the operational definitions for developing the FRL were advanced ("Component 3: Reference Emissions Level / Reference Levels") as was the methodology to use to determine the activity data and emission factors in each case. Scheduled campaigns to the countryside were carried out to reveal the emission factors. In each outing, forest structure was measured with a terrestrial laser scanner, canopies and data for digital modelling of the terrain with drones (in conserved and transitional forest zones). A conceptual model of SNMF (subcomponent "4a: National Forest Monitoring System") was also created.
2. Interaction with productive systems: an exhaustive literature review was completed to approach the following issues: i) what is the effect that trees exert on livestock farming (ovine and bovine) and ii) what is the potential of the native forests to form part of the planning of the livestock system. Interviews with experts and academics (national and regional) and producers with interest in the native forest and their interaction with the livestock were completed. A survey for livestock farmers from the entire country was carried out in order to understand their perception regarding the relevance of the native forest in their production system.
3. GHG: the data collection of presence and absence of *Ligustrum lucidum* and *Gleditsia triacanthos* was advanced. IFN data and GHG map created by REDD+ from satellite images were used. A preliminary result was obtained of the model that explains the presence of EEI according to climatic and edaphic variables, but it still requires adjustment and incorporation of other explanatory variables into the model. For the analysis of the mechanisms of entry of woody EEI, 30 paired sampling sites (a plot with management and another one without management), but due to COVID-19 many of the samplings could not be accomplished.
4. Multiple benefits: samples to calculate the water quality of watersheds were carried out and fieldwork for runoff experiments in different types of forest: conserved, scattered, invaded, natural field and cultivation.
5. State of conservation: criteria for identifying the state of the forest were identified, based on literature review and consultations with experts. Fieldwork was conducted to gather data to determine the state of conservation and create reference ranges for the indicators of the state of conservation. For that, sites in different states of conservation were selected, through consultation with national level leaders.
6. Forest dynamics: the development of a model based on general factors at national level that explain the distribution of forests and expansion was advanced through levels of information.

In all of the cases there were delays in the activities, product of the COVID-19 pandemic, for which many of the results are still being analyzed and considered by the governance institutions and will be important input for the future of ENREDD+ in Uruguay.

Independent of the analysis and pending validation of the results, it can be stated that in Uruguay there are diverse laws and/or regulations related to REDD+ (as demonstrated in the section “List of the Framework of Policies and Laws related to REDD+”) and that many are being implemented (**Indicator 19**). For example, in paragraph 26 of the PNCC, it was determined that “the development of strategies and plans for the implementation of this Policy will be favored as being, among others, ... The Strategy of Reduction of Emissions by Deforestation and forest Degradation”. Likewise, the First NDC, as one of the PNCC implementation instruments, included mitigation goals to 2025 for “Living biomass in Forested Lands” unconditional and conditional on additional specific implementation resources (Table 7). The progress on these forest goals will be shown in the first biennial transparency report under the Paris Agreement. .

Meanwhile, for the correct monitoring of the selected indicators to follow up on the progress made in the application and fulfillment of the NDF forest objectives, the country needs to create and implement a “National Registry” that can incorporate the information georeferenced in REDD+ (for example, information about the location, the ownership, the accounting of the carbon and the financial flows for the REDD+ programs and projects), with mechanisms for public access to the information (**Indicator 22**). In Appendix II a proposed action plan is presented for the design and implementation of the “National Registry”.

The “Benefit Distribution Mechanism” is also lacking. In Appendix II a proposed action plan is presented for the design and implementation of the “Benefit Distribution Mechanism” (**indicator 21**).

## 2d: Social and Environmental Impacts

### *Corresponds to Indicators 23 to 25 of the FCPF Assessment Framework:*

The SESA process was carried out as one of the activities central to the preparation for REDD+ Uruguay. The corresponding documents to SESA and MGAS have been created, both having No Objection from the World Bank. As promised by the country, a Grievance and Conflict Resolution Mechanism was designed, that also has the World Bank’s No Objection. All of this has allowed for significantly strengthening ENREDD+, considering the risks identified during the consultation process.

It is important to remember that the POs activated by the World Bank, that applied to the FCPF Readiness Project in Uruguay, were: PO 4.01 Environmental and Social Assessment, OP 4.04 Natural Habitats, PO 4.36 Forests, PO 4.09 Pest Management, PO 4.11 Physical cultural patrimony and PO 4.12, Involuntary Resettlement. Neither PO 4.10 Indigenous Communities nor PO 4.20 Gender were activated.

The first stage of the consultation process, preparation for the SESA (**Indicator 23**), consisted of the dissemination of the REDD+ Strategy readiness process, including territory level consultations about co-benefits of the forest and about drivers of degradation and deforestation of the native forest, adding also the identification of training necessities and strengthening of diverse key stakeholders identified in REDD+ Strategy Readiness framework. This first stage began in the last quarter of 2017 and continued until October 2018. Five participation meetings were held, bringing together more than 180 participants from 8 departments of the country.



As was previously described in the sub-component “1b: Consultation, participation and dissemination”, in September and October 2017 two workshops were held about benefits, degradation and deforestation of the coastal forest. The first meeting was on September 30 and involved 30 people that included managers of SNAP protected areas, municipal leaders and leaders of civil society organizations from the departments of Rocha, Maldonado and Canelones. The second workshop focused on the coastal forest of the west coast: Colonia, San José and Montevideo, attended by more than 20 participants from subnational and municipal governments and representatives from civil society. In each one of these meetings, there was a systemization that was circulated with the participants, by way of a return and synthesis of the workdays; the systematization also served as input for the analysis of drivers that the project’s technical team was creating at the moment..

In 2018, during the months of April and May, three new participation and consultation meetings were coordinated. This time the activities were from departmental court and took place in Rivera, Paysandú and Rocha, seeking a territorial balance that would take into account different zones and types of forest in Uruguay.

These participation and consultation meetings brought together more than 120 stakeholders linked to diverse sectors of civil society and public and private institutions: environmentalist organizations, leaders of indigenous people, rural production societies, agrarian cooperatives, forestry businesses, as well as university leaders and representatives of departmental governments, national representatives of various ministries, and the Planning and Budget Office.

The 3 workshops drew on previous preparatory meetings, with the local MVOTMA and MGAP teams. In Rivera and Paysandú departmental government leaders were also involved in these meetings, and in Rocha, there was participation from leaders from the Eastern Regional University Center of the University of the Republic. These meetings served to broaden the list of stakeholders and leaders that would be gathered to the consultation workshops on drivers and benefits that undoubtedly helped the extensive meetings resulting in each case.

Specifically for the Paysandú and Rocha meetings, as a way of ensuring the specific participation of representatives of groups that self-identify as indigenous, REDD+ communicated with the national leaders and asked them to identify representatives of different departments where the consultation activities were held. In this way, there was a better meeting and it achieved a good representation of this group of stakeholders in the local meetings.

In the 3 Departments where the consultations were held, the following principle causes of deforestation were identified: substitution of the forest for crops and encroachment of urban centers. On the other hand, in degradation matters the principle drivers proposed were the use of agrochemicals, the advance of invasive alien species, and the logging of native species in the outskirts of populated centers.

The meetings serve, furthermore, as a basis for identifying the benefits associated with forest ecosystems. The most often cited benefits were buffering of floods in the urban areas and the maintenance of water quality and the promotion of nature tourism in rural areas. Its usefulness for livestock farming and beekeeping within the productive sector that make direct use of the native forests too. The reports from the REDD+ consultation meetings were disseminated among the participants for their validation and as a way to improve the transparency of the process.



The next step of the plan consisted of a consultation process regarding policies, actions and measures and about partial and complete drafts of the ENREDD+ document, as part of the Strategic Environmental and Social Assessment (SESA) (**Indicator 24**).

This process started in Uruguay with a cycle of five Regional Workshops that took place between August and September 2018 (as mentioned in item 1b) and finished with the National Workshop in December. The main result of the SESA National Workshop was the consideration and prioritization of the potential risks linked to the strategic action measures consulted, as well as the benefits and the proposed mitigation measures.

The participatory process resulted in diverse proposals of possible risks during the ENREDD+ implementation. During the SESA technical meetings, they identified and validated 33 socio-environmental risks along with their respective potential impacts stemming from the implementation of the ENREDD+ action measures. These risks were grouped into four risk categories: operative management capability; effects on the environment; participation, consultation and information; social and cultural effects.

Additionally, a number of proposals of positive impacts coming from the future implementation of ENREDD+ were obtained. The standardization process developed 34 possible benefits, which are able to be generated in the territory during or after the implementation of the action measures. In turn, varied proposals were made to mitigate or attenuate the possible risks and negative impacts of the implementation of the ENREDD+ activities. These proposals were validated, resulting in 39 mitigation proposals. These were organized into fundamental categories to maintain the coherence obtained in the other resulting input.

Based upon the risks and impacts identified in the SESA, an Environmental and Social Management Framework (MGAS, by its acronym in Spanish) was created, in which the different measures to take for each possible risk were defined, as well as the applicable framework when said risks are linked to one of the defined safeguards (**Indicator 25**).

Additionally, in regards to the socio-environmental impacts, the country currently has a narrative proposal for each one of the safeguards that makes up the REDD+ general safeguard framework, which adapts to the reality of Uruguay and according to ENREDD+. The narrative proposal was created in conjunction with civil society stakeholders in the National Workshop held as a closing to the SESA participative process. To date, the country has made an analysis of the existent regulatory framework (policies, laws, possibly linked regulations) that will allow for defining the implementation environment and follow up for the approach and respect of the social and environmental safeguards.

## Component 3: Reference Emissions Level / Reference Levels

*Corresponds to Indicators 26 to 28 of the FCPF Assessment Framework:*

Uruguay is very unique within the REDD+ framework, different from the majority of REDD+ countries. Uruguay is a country with low native forest coverage and these forests are protected by Law, consequently deforestation events are minimal. The main problem is associated with degradation processes and the opportunity for REDD+ in Uruguay lies in the increase of carbon stocks, restoration and sustainable management of its forests. This implies great challenges, both technical and methodological, for the creation of a Forest Reference Level as for the National Forest Monitoring System.

For the creation of the FRL the following CMNUCC guidelines and the most recent IPCC guidance have been followed and will be followed during the entire process (**Indicator 28**).

The creation of the FRL for Uruguay occurred in the framework of the Agreement signed between the INIA and the REDD+ Readiness Project, in which this was one of its principle products.

As preparatory activities for this component, developed before the beginning of the execution of the INIA-REDD+ Agreement, the following stand out:

### Activity data

All of the information about activity data was systemized and analyzed, identifying the methodology applied, the definitions used, the results obtains and their strengths and weaknesses for being used for REDD+. Additionally, interviews with institutions and qualified informants were conducted nationally about this topic with the principle goal of analyzing possible sources of information available for creating the forest reference level, but they also allowed starting to visualize already existing possible platforms or information systems nationally where it would be possible to display the information generated by the REDD+ project.

After analyzing all of the information available nationally, it was understood that it was necessary to generate new national usage and land use change maps for the reference period. This was begun by the creation of the native forest coverage map for the year 2016.

The cartography of the native forest, created by Project REDD+ for the year 2016, was adopted by the DGF as national official cartography and it is presented in the following figure:



Figure 5 – Cartography of native forest of Uruguay, year 2016

*Source: Readiness Project for REDD+ Uruguay*

### Emission factors

Regarding the necessary parameters for the calculation of GHG emissions and removals, the first thing to highlight is that there are no allometric equations for any of the species present in the native forests of Uruguay, nor allometric equations applicable for the different types of forest. Therefore, for now it is not possible to calculate the existing biomass in the native forests directly by using these equations. In Appendix II, a proposed plan of action is presented for the creation of allometric equations, consistent with the CNMUCC guidelines and the most recent IPCC guides (**Indicators 27 and 28**).

For this reason, the determination of the total carbon stocks contained in the live biomass (aerial and subterranean) of the native forest was worked on following the calculation of the carbon content carried out in the First National Forest Inventory (IFN) made by the MGAP General Forest Directorate in each one of the 1,467 native forest plots

Using the carbon/plot data from the IFN, a map of carbon only for the live biomass (aerial and subterranean) of the native forest was made. In Appendix II, a proposal for an action plan for the creation of carbon calculations in the soil is presented, consistent with the CNMUCC guidelines and the most recent guidance of the IPCC (**Indicators 27 and 28**). The creation of the map consisted of assigning a carbon calculation to each pixel of the native forest cartography created from the Landsat 8 images for the year 2016 (Project REDD+ MA-MGAP, 2020). This calculation was obtained through the prediction of a geostatistical (kriging) model, conducting the interpolation in the mapped area of the native forest.

The carbon map created for Uruguay is presented in the following figure:



Figure 6 – Map of carbon in living biomass of the native forest of Uruguay  
*Source: Uruguay REDD+ Readiness Project*

After signing the investigation Agreement with the INIA, which was carried out in the framework of the Uruguay REDD+ Readiness Project, a team was put in charge specifically of the component

related to the creation of the FRL of Uruguay that has as an objective to establish the baseline of GHG emissions / removals associated with the deforestation processes and the increase of carbon stocks for the period 2000-2016, as well as progressing in the development of a methodology for the quantification of GHG emissions from degradation processes (**Indicator 26**).

The Uruguay version of FRL, included in the Readiness Package, is national level and encompasses the period 2000-2016.

The two REDD+ activities included in the FRL are:

i) Deforestation.

ii) Increase in carbon stocks of the forests. This calculation emerges exclusively from considering the expansion of forests.

The carbon reservoirs considered in the present forest reference level and its operational definitions, based on the IPCC guidelines (IPCC 2006) are:

#### *Carbon in living aerial and subterranean biomass*

The vegetation's carbon reservoir includes all of the aerial living biomass (expressed in dry weight tons) (up to 4mm thickness, according to the parameters used) and subterranean; including trunks, stumps, branches, bark, foliage and roots.

With regard to the gases, this forest reference level only takes into account CO<sub>2</sub> emissions and removals.

Although the methodological development for the calculation of the GHG emissions from degradation of the native forest has been significantly advanced, this REDD+ activity was not yet included in the Forest Reference Level due to being the first national estimation and the results obtained have not been able to be completely validated. However, efforts will continue to be made to continue adjusting the methodologies and validating the results, in order to be able to include this activity in the next updates of the FRL of Uruguay. In Appendix II, a proposed plan of action for the inclusion of forest degradation in the next FRL, consistent with the UNFCCC guidelines and the most recent IPCC guides is presented (**Indicators 27 and 28**).

#### Definitions

The legal definitions that frame the management of the native forest and the National Native Forest Strategy at DGF level, consider the forest to be "the vegetative associations in which trees of any size predominate, exploited or not, and that are in conditions to produce wood or other forest products or to exert an influence on soil conservation, on the hydrological regime or on the climate, or that provide shelter or other benefits of national interest" (Law Nº 15.939, Art. 4). This definition is complemented by the Decree 452/988 which adds that in addition to the previously established characteristics "has a minimum area of 2,500 m<sup>2</sup>". Additionally, in accordance with the DGF document "Tutorial for the presentation of an application for the native forest registry", "forested area is considered to be that which has a density greater than 200 trees per hectare with a canopy coverage of 50%.

Although the country has a national concept of forest, as was mentioned in the previous paragraph, for the purposes of creating the FRL it was necessary to establish a series of operational definitions based on the capacity of the satellite images for forest coverage detection and those from different calculated activities. The operational definitions utilized are presented below:

#### Forest

Considered to be all land area at least 900 m<sup>2</sup>, with a native woody species canopy coverage greater than or equal to 30%. This definition does not take into account the height of the trees nor other thresholds, such as for example minimum width. The canopy coverage threshold is the calculated value that determines that a pixel is classified as forest and therefore is a central aspect of its operational definition.

#### Forest expansion

Is the increase in native forest area within the reference period.

#### Deforestation

Is the occurrence of a disturbance in which woody vegetation is eliminated, producing a change in areas classified as forest, according to its operational definition, in earlier period and that is not reclassified as a forest in any later period.

In this case, it is important to mention that within Deforestation activity, areas with forest management authorized by the DGF may have remained. As was mentioned (see point 1.1.3), in the present FRL it was not possible to distinguish between losses of native forest coverage authorized or not by current law.

#### Methodological focus

In general lines, the construction of the FRL was based on the integration of information from optical data from remote sensors and information gathered on land.

A stratified sample of plots was conducted based on five ecoregions of the country and methodologies for the calculation of the activity data were developed (average of deforested and degraded hectares and the increase of native forest area for the period 200-2005, 2005-2010 and 2010-2016) and associated emissions factors (estimator of the quantity of carbon emitted or sequestered by unit of area, associated with each activity).

With the data generated, the forest reference levels were calculated for the period 2000-2016 for deforestation and the increase of carbon stocks by forest expansion and its respective uncertainty.

The activity data were obtained based on a superposition of maps of land use to calculate the deforestation activities and increase of area. The specific emission factors of the country were obtained based on calculation methodology of the carbon content of the living aerial and subterranean biomass. For that, tridimensional models of the forest structure were made with the use of a Terrestrial Laser Scanner (TLS).

### Activity data

In order to quantify the forest area in which the transitions occurred, the following actions were carried out:

- 1) land use/cover classification;
- 2) calculation of transitions, their areas and associated uncertainty (Fig. 7).

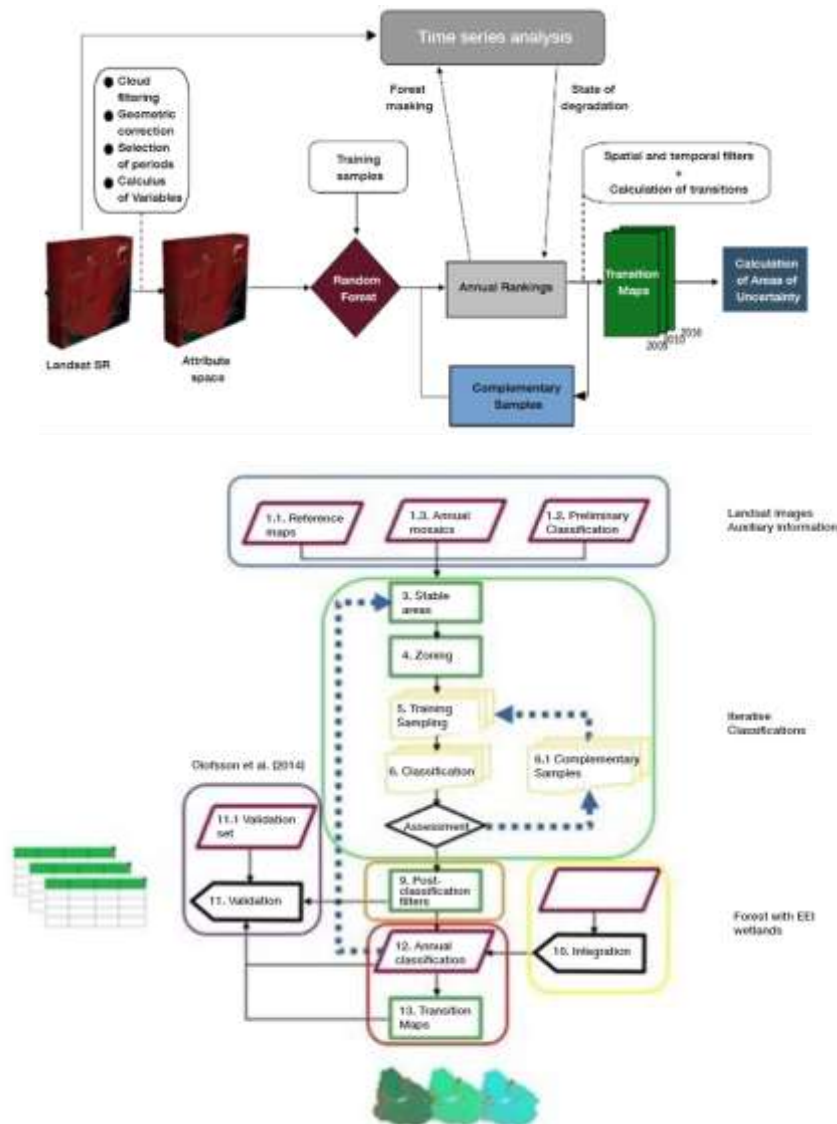


Figure 7 – Methodology for determination of the activity data of FRL of Uruguay

For the classification of the land use/coverage the following activities were conducted:

- Generation of the spatial attributes: involved the creation of classifications supervised through the Random Forest algorithm (Breiman, 2001), through Landsat satellite images and actual land samples generated through the visual interpretation of high-resolution images and phenological signatures. Classifications were created for the periods 2000-2005, 2005-

2010, and 2010-2016, using the Google Earth Engine platform (Gorelick, 2017). The spatial attributes were generated from the collections of Landsat 5, 7 and 8 (TM, ETM and OLI) images corresponding to surface reflectance, processing level L1TP (orthorectified), Tier 1 available in Google Earth Engine. Thus, upon the gathering of all the available images for the growing season that starts on June 1st and ends on May 31st of the following year three cloud filters were applied. The variables that made up the spatial attributes include the bands of the visible spectrum, infrared and thermal (blue, green, red, near infrared, medium infrared 1 and medium infrared 2, thermal) of the Landsat images, the fractions obtained from the spectral decomposition (Souza et al., 2005), and spectral indices obtained through arithmetic operations between the bands (e.g., NDVI, EVI) and between the fractions (e.g., NDFI). For each variable central tendency and dispersion metrics were calculated for the selected periods or for the entire growing season.

- Collecting training samples: training and evaluation samples were obtained for the IPCC land use categories: forested lands (stratifying native forest and forest plantations), pastures, wetlands, settlements and other lands. Both groups of samples were obtained from visual interpretation of high-resolution images available on Google Earth, Landsat images and of analysis of temporal series.

The number of samples of the evaluation group was calculated taking into account the standard error of the general accuracy desired through the following formula (Olofsson et al. 2014):

$$n \approx \left( \frac{\sum W_i \times S_i}{S(O)} \right)^2 \quad \text{Equation 1}$$

Where,  $W_i$  is the proportion of area occupied by the class  $i$ ,  $S_i$  is the standard deviation of the strata  $i$  and  $S(O)$  correspond to the standard error of the general accuracy that is desired to be achieved. Values of this last parameter of 0.02 and 0.04 are considered to define the total number of evaluation samples. The sample design was random, stratified by class and proportional to the area of each class (Olofsson et al., 2014). In turn, a minimum number of 50 samples was defined for minority classes.

- Generation of land use and cover maps: Figure 7 shows the workflow. The first step gathers reference maps (cartography, official, annual mosaic, layers in raster format of variables derived from Landsat images, preliminary classifications). This enabled the identification of stable areas in which the use or coverage remained under the same category between 2000-2016. The classification processes were carried out with a pixel by pixel approach, with the Random Forest algorithm. The runs of the algorithm were independently done in each of the 5 zones of Uruguay using the entire group of training samples available for each zone. The results are in the form of maps and tables with the area of each use and coverage in 2000, 2005, 2010 and 2016, as well as the transitions in the 3 sub-periods. Afterwards, spatial and temporal filters were applied.

For the transitions calculations the following activities were performed: the three maps of transitions were calculated comparing maps of successive periods. For example, the map of



transitions from 2000 to 2005 showed pixels in which changes in native forest coverage occurred upon comparing maps from 2000 and 2005. The classes of these maps of transitions were: forest-agriculture; forest-pasture; forest-forest plantation. In turn, the opposite calculation was carried out for the case of pixels corresponding to expansion of forests, where the classes were: agriculture-forest; pasture-forest, forest plantation-forest. To calculate the area of each transition, the methodology proposed by Olofsson et al. (2014) was followed. The area by pixel count for each transition was obtained through superimposing the land cover and use classifications from 2000, 2005, 2010 and 2016.

#### Emission factors

To calculate the emission factor (FE, by its acronym in Spanish) for the following transitions: 1) forest-change in use of the land (deforestation) and 2) forest-forest with expansion surveys were completed in sites selected by a stratified design.

The emission factor corresponding to each transition was calculated in the following way:

$$FE_{ij} = \frac{\sum_k^n (C_i - C_j)}{n}$$

Equation 2 (FE = emissions factor)

Where:  $FE_{ij}$  corresponds to the emission factor of the transition characterized by initial coverage  $i$  and final  $j$ ,  $C$  is the density of the woody carbon of the aerial part and the roots (Tn/ha), and  $n$  and  $m$  indicate the number of sites surveyed with TLS. In the calculations it is assumed that the content of  $C$  of the vegetation is zero for all the coverages that are not forest (degraded or not). The standard deviance of each EF was calculated as the square root of the sum of the standard errors of each component of EF squared (Approximation 1 IPCC (2006)).

#### Calculation of aerial and subterranean carbon

Between 5 and 7 360° color scans were conducted in horizontal plane and between -60° y 90° in the vertical plane in each one of the forest sites selected (see selection design). The scans were conducted mounting the TLS on a 2-meter high tripod to avoid the trees and grass impeding the registry of the farthest vegetation elements.

The size of the plots was variable (between 30-80 m<sup>2</sup>) according to the degree of concealment, that is in those which presented greater coverage of shrubs or tall grasses were less. However, in each case of very occluded plots the number of scans was increased as a way of ensuring a minimum plot size of 10m x 10m.

The dated recorded by the TLF were imported into the program SCENE (Faro Laser Scanner Software) where each scan was pre-processed specifying the values of the parameters and the need to apply filters. In the pre-process, the point clouds are colored too. Once pre-processed, the co-registration of the point clouds was conducted. This implies joining the point clouds from each scan into a single point cloud of the whole site. For that it is necessary to identify the reference spheres. This Works when these are not found hidden by plant matter. Finally, a single point cloud is obtained from the Project, which includes all the scans. This is verified by an operator, to prove that the co-registration does not have errors.



The next step was to filter the point clouds through a 1-cm grid to reduce the point density and reduce the size of the file. Secondly, point clouds considered noise or errors were eliminated. Then the points were classified into “vegetation” and “ground” and different metrics of the vegetation (maximum height, minimum height, average, standard deviation, percentiles, etc.) are calculated. The resulting point cloud from the processing allows for the calculation of many structural attributes. For example, the raster heights (maximum, minimum, average, percentiles), raster density of points in a particular height of the profile, percentage of canopy coverage, stem volume total, etc.

To obtain the measure of volume through the data generated by the TLS, a voxelization of the clean point cloud was conducted, classified and normalized. The voxelization consists of the transformation of the point cloud in a group of cubes (voxels) of a given size. For example, if a size of 2 cm is used, this means that the points are transformed into a group of millions of 2 x 2 x 2 cm cubes. Each voxel must contain at least one point. Therefore, the spaces where there are no points, will not have voxels. Thus, the points that are found at least 2 cm apart are summed up in one single voxel of known volume.

The carbon density of the forests was calculated from the quantification of the volume of the aerial part of the living biomass, conducted by surveys with the TLS in 66 plots, located in different regions of the country (Sierras del Este, Graven de Laguna Merín, Graven de Santa Lucía, Escudo Cristalino, Cuenca Sedimentaria Gondwánica, Cuenca Sedimentaria del Oeste y Cuesta Basáltica), covering 42 native forests, 9 degraded forests, 10 forests in expansion and 5 forests with invasive alien species. Eight plots were discarded due to processing problems associated with the sites with steep slopes or a deficient co-registration of the scans.

Thus, the total density of woody C was calculated in the following way:

$$C_i = [(Vol_i \times D_i) + Bf] \times (1 + R) \times FC / S_i \quad \text{Equation 3}$$

Where:

$C_i$ : is the total density of C (aerial and subterranean) of the woody component (living or dead) and foliage of the vegetation of the plot i, expressed in Tn/ha.

$Vol_i$ : is the volume in m<sup>3</sup> of the woody component of the aerial part of the plot i calculated with TLS.

$D_i$ : Is the density of the Wood in Tn/m<sup>3</sup> calculated for the plot i.

$Bf$ : Is the foliage biomass in Tn/ha.

$R$ : is the conversion factor of total aerial biomass that takes into account the subterranean biomass ratio: aerial biomass of 0.2 suggested by IPCC (2006).

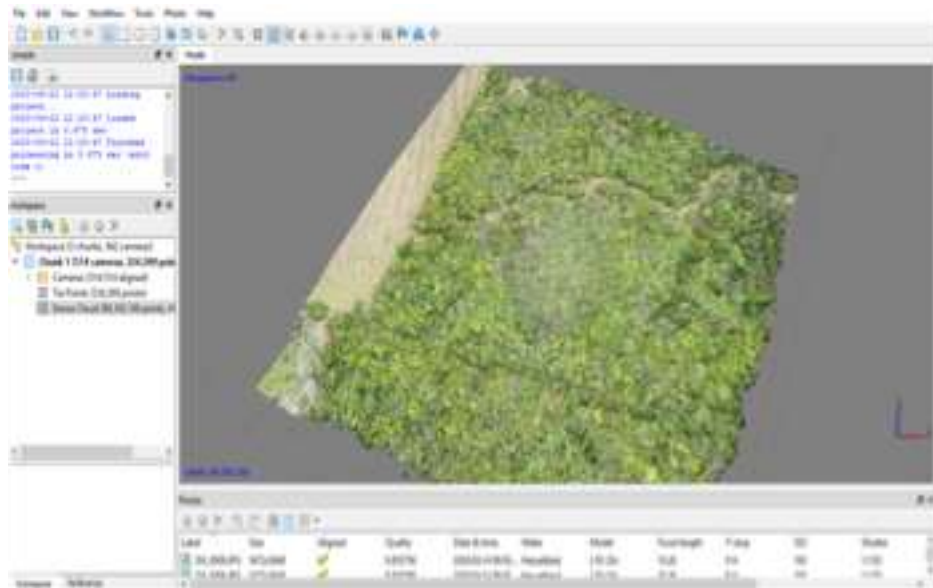
$FC$ : is the fraction of C present in the vegetative biomass. Following the suggestions of the IPCC (2006), the FC used was 0.47.

$S_i$ : Surface area in hectares of plot i.

The density of the wood ( $D$  of the plot i) was calculated by the list of species present in the plot of the nearest IFN to the plot i and density values of the literature through FAO (2020) and Chave

et al. (2009). For seven of the 62 species present in the 66 IFN closest to the measurements with the TLS, density values were not found in the literature. Seven cases dealt with less abundant species. Thus  $D_i$ , results from weighing the density of each specie by its abundance in the IFN plots under the assumption that these two aspects (the list of species and their abundance) is not substantially modified between the measured plot  $i$  and the nearest IFN.

Below examples of the tridimensional models obtained upon processing the surveys conducted with the drone and TLS are presented:



**ORTOMOSAICO – ORTOFOTO**  
Dron y TLS – Software Agisoft

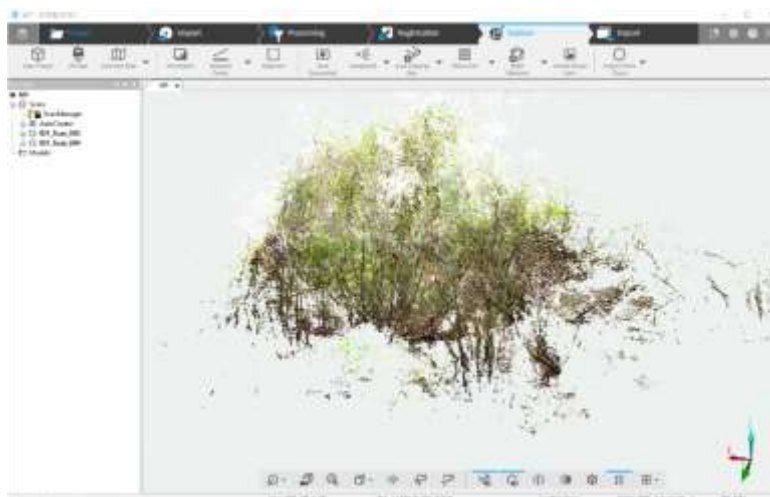


Figure 8 – Steps in the processing of data obtained with the drone and TLS with specialized software

*GHG emissions and removals for the reference period:*

Applying the methodology described and based on the CMNUCC guidelines and most recent guidance from IPCC, the results of the GHG emissions and removals for the period of reference are the following:

*GHG emissions from deforestation*

Loss of forest area from the period 2000-2016: 12,735 ha

Total GHG emissions period 2000-2016: 4,669,500 tCO<sub>2</sub>

Average GHG emissions per year: 291,843.75 tCO<sub>2</sub>/year

*GHG removals from forest expansion*

Surface area gained from 2000-2016: 8,212 ha

Total GHG removals period 2000 - 2016: 1,282,714 tCO<sub>2</sub>

Average GHG removals per year: 80,169.65 tCO<sub>2</sub>/year

*Net GHG emissions*

Net emissions FRL 2000 - 2016: 211,674.1 tCO<sub>2</sub>/year

While Uruguay has advanced in a first version of its Forest Reference Level for REDD+, the need to examine the methodology applied and generate new information that allow for the calculation of GHG emissions and removals in a more precise way has been identified. For that, in Appendix II, an action plan proposal for improving this component of the Readiness Package is presented (**Indicators 26 to 28**).

## Component 4: Monitoring Systems for Forests, and Safeguards

### 4a: National Forest Monitoring System

#### *Corresponds to Indicators 29 to 31 of the FCPF Assessment Framework:*

In the REDD+ Uruguay Readiness Project framework, a document has been created which contains the conceptual design for the Forest Monitoring System. It includes the institutional agreements, system components, hardware and software operational requirements and the necessary resources for its operation. **(Indicator 29)**.

The conceptual design has been created as a base to strengthen native forest monitoring and generate information to support decision-making in forest management matters and contribute to the responding of the commitments made by the country. It is the first effort in comprehensive design, under a progressive focus, in which it is recognized that some elements will require greater detailed analysis, discussion and development prior to its implementation.

It should be noted that some of the input proposed for the SNMF is part of the actions that the DGF is currently developing for the monitoring of the forest resources such as, for example, native forest cartography, the IFN, the registry and management plans for the native forest, consequently it is expected to contribute to the strengthening of said processes and provide updated and transparent information. In Appendix II, a proposal for an action plan for the comprehensive implementation of the SNMF, considering **(Indicator 31)**:

- Clearly defined mandates to complete tasks related to forest monitoring (for example, satellite data processing, forest inventory, exchange of information );
- Transparent means to publicly share data about forests and emissions; and
- Resource needs (for example, required capacities, training, hardware/software and budget).

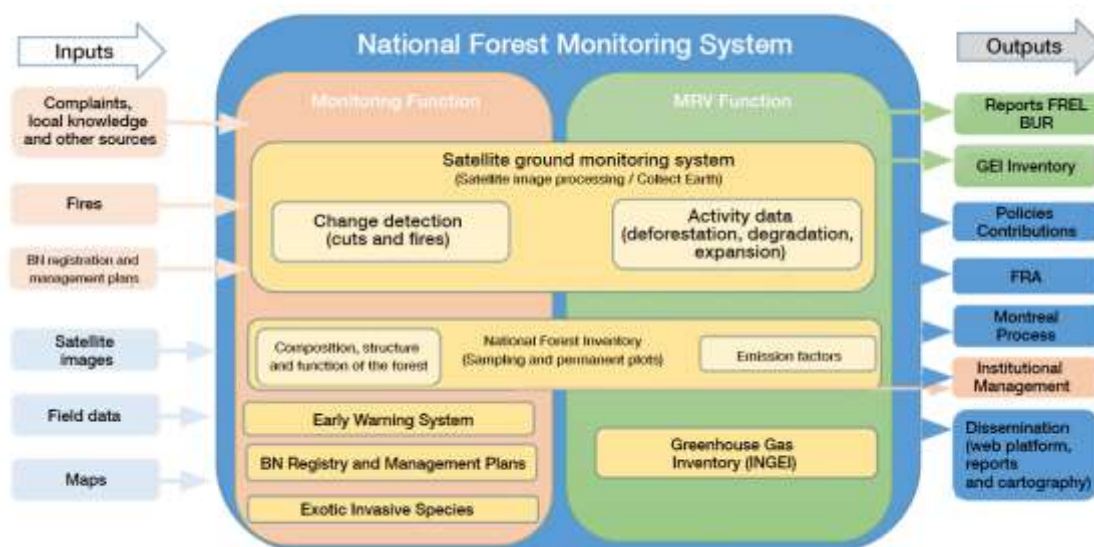


Figure 9 – General structure for the SNMF conceptual design for Uruguay

A chart of the activities completed as part of the design process for the forest following system in Uruguay is presented above, in the framework of the Readiness Project for REDD+ (**Indicator 30**):

*Gathering and analysis of the information and the existing information platforms*

As in the case of the Forest Reference Level, the first activity carried out for the SNMF design consisted of an analysis of the information available nationally, the platforms or systems of information already in existence and the GIS and tele-detection tools available, for the purpose of beginning to evaluate the viability of include or use them for Project REDD+.

*Creation of a provisional SIG to store existing information and new information generated by REDD+*

With the goal of storing both the geographical information of interest for the existing Project in the country, as well as the new information that was generated in the framework of Project REDD+, a GIS in a local database was built provisionally.

Said database has different layers of geographic information, for example the points of IFN sample data, the historic series of national forest cartography, coverage maps of DINOT land and sample points from the gathering of land use and usage change completed with Collect Earth. It also includes other general geographic information about the country, such as censuses, administrative divisions, and cities, among others.

Among the information generated by project REDD+ currently found included in the provisional information system are:

*Map of the presence of invasive alien species (EEI)*

The invasion of native forests of Uruguay by different alien invasive species is one of the greatest concerns for those that are responsible for the management and conservation of this natural resource and one of the principle causes of its current state of degradation. It is also a topic of great concern for civil society representatives, who in a number of opportunities have expressed that the invasion processes intensify more and more and that there are no clear solutions for addressing this problem.

In particular, the work of mapping the presence of EEI was completed through the systematization of information gathered in the first IFN of Uruguay. The presence/absence of invasive alien species is one of the IFN variables that was gathered differently depending on the stage of the IFN it dealt with. This allows for analyzing only the presence or absence of EEI, assuming that the IFN plots from the third stage of the IFN present invasion of EEI in the environment also have a presence in the plot. In some cases, there is a qualitative determination of the grade of severity of the invasion, but for now, it was preferred not to use that data in the analyses. According to the results of the systematization of this information, different maps were created. First, IFN plots with presence of EEI were mapped. This allowed for determining the percentage of all IFN plots (from the 3 stages) with EEI and its location in the territory. A map of concentration of plots with EEI presence (heat maps) at national level was also created, which gives a preliminary idea of those zones in the territory where the invasion seems to be more significant.

The map of IFN plots with presence of EEI and the heat map are presented below:



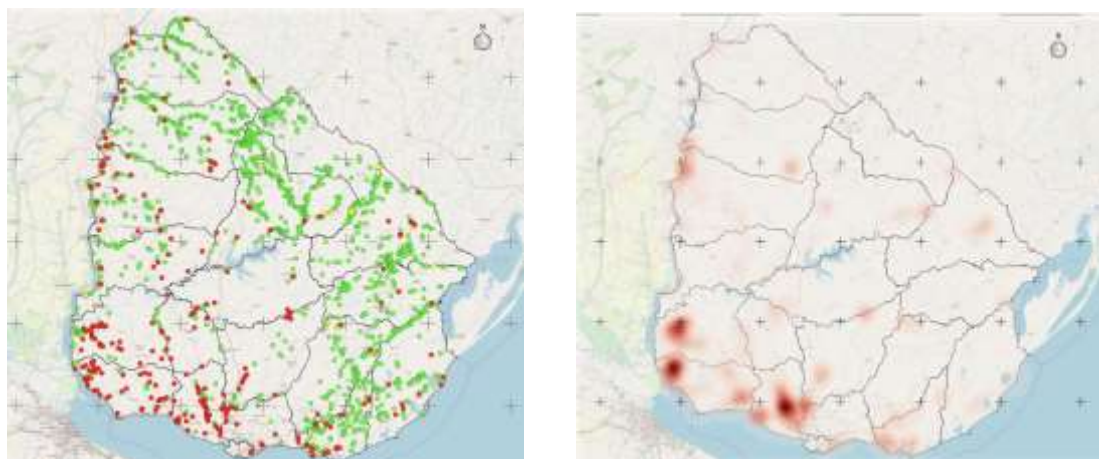


Figure 10 – Map with IFN plots with presence of EEI (left) and heat map (right)

Source: REDD+ Uruguay Readiness Project

### Remote sensing monitoring of EEI in the native forest of Uruguay

The general objective of the work was to spatially identify the invasion of EEI within the native forest of Uruguay, through information coming from remote sensing techniques, principally *Ligustrum lucidum* and *Gleditsia triacanthos*. For that, the specific objectives were:

- Know the Normalized Difference Fraction Index (NDFI) potential (Souza, Roberts y Cochrane, 2005) to detect at canopy level, with confidence, the degradation of the native forests due to invasive species.
- Develop a valid methodology for the detection of EEI in the native forests of the country, as a driving agent of degradation and evaluate with how much precision said classification can be calculated through a thematic accuracy analysis.
- Achieve a first cartographic advance of the distribution of EEI nationally.

In the following figure, the process of generating the map of spatial distribution of EEI can be seen:

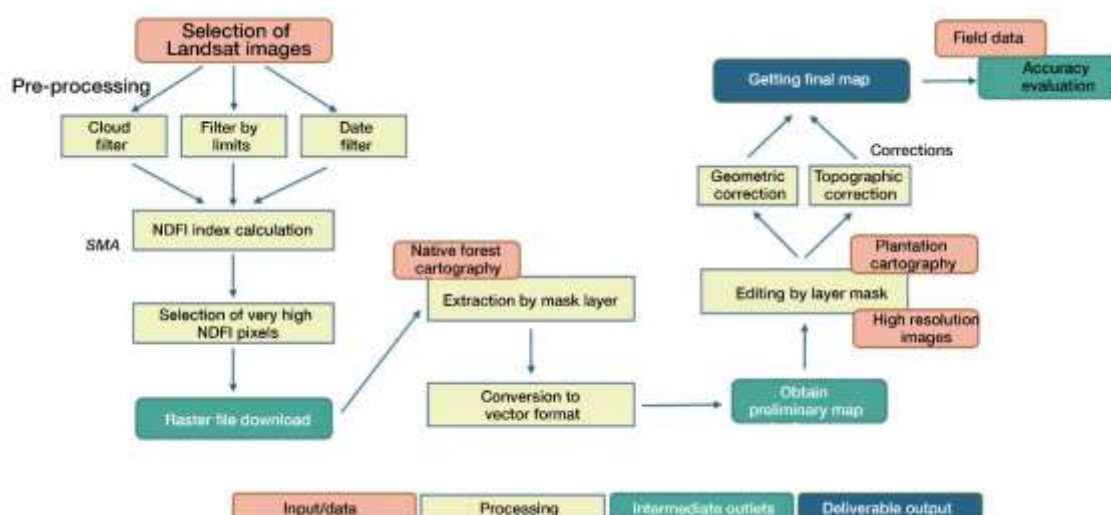


Figure 11 – Process of generating the EEI distribution map

The EEI invasion within the native forest map is presented in the following figure:



Figure 12 – Map of EEI invasion within the native forest of Uruguay

Source: REDD+ Uruguay Readiness Project

These results allowed for the conclusion that the use of satellite images of medium resolution (Landsat) has the potential to detect and map this type of native forest degradation in the country due to invasion of *Ligustrum lucidum* and *Gleditsia triacanthos*, with a satisfactory level of precision. The NDFI index was significant as an explanatory variable of the classification and was the index with greatest explanatory power of the three indexes that were compared.

This classification is efficient as an indicator of the degradation by these EEI and is replicable in the future. Additionally, the cartography obtained contributes to the determination of the activity data to be able to calculate GHG emissions from processes of forest degradation.

#### Digitalization of the folders of the native forest Registry and cutting permits

Another one of the aspects that was of interest to quantify in the country was the native forest wood that is authorized for extraction each year by the authority responsible for the matter, the types of management that are authorized and their spatial location. Additionally, it was also of interest to carry out a temporal analysis of the cutting authorizations issued, as a way to be able to link silvicultural management to productive results and results of the condition, health or state of the forests in the country. The spatial localization of the cutting permits that have historically been issued will permit the analysis of the results of the current management of the resource in different scales, whether it be at property, sub catchment, watershed or landscape scale. This analysis will contribute relevant information for the definition of the concept of forest for REDD+ and of the management of this resource with the new focus that is expected to be implemented in the framework of the REDD+ actions.

In DGF there is a native forest register that contains historic information about the registered forests and the cutting permits authorized, but said information is only available in paper folders and, accordingly, as part of the REDD+ Project it was decided to digitalize that information.

Due to the magnitude of the work, this aspect was approached as part of a consulting service that was contracted and carried out during 2018-2019.

This required previous work on the part of the REDD+ team, in preparation for the hiring task, which are described below:

- 1) Preparatory work to estimate the digitalization and be able to refine the numbers for the hiring and budget of the work.

This work meant reviewing and gathering the information from all of the Registry folders contained in the archives of the Forest Management Division of DGF. Specific spreadsheets were prepared for this collection, which included the following fields: Department, Registry Number, Roll, Registered Area, Year of Registry or Last Update, Year Last Certified and Permit Number (BN Management Plan). Approximately 4,000 folders from the Registry were reviewed.

Based on this information and taking into account the number of registers that have a management plan or associated cutting permit, the number of folders to be digitalized was calculated. The objective of this work, in addition to estimating the task for its Budget, was to guarantee that all of the management plans associated with a registry and all of the registries without management plan, but with activity after 2000 (first year of the period of reference) were included in the digitalization. In the attached document, the detailed information about the preparatory work for this task can be seen.

- 2) Definition of the fields with the information to be gathered in the digitalization.

Based on the goals set by REDD+ and agreed upon with the Forest Management Division of DGF, the following fields (data) from the folders and management plans that will be included in the digitalization were defined.

The creation of a data based linked to a GIS in which two layers of spatial information per registry folder would be generated was suggested: a layer of linked to the registry information and another layer linked to the native forest management plans (cutting permits).

The layer linked to the registry folders will have information obtained from the folder and updated information obtained from available satellite images. From the information contained in the folder, the following will be included: Registry Number, Management Plan Number, Roll number, Area registered, Date of area registered, Exempted area, Year of the exempted area and Date of the image used to create the registry. On the other hand, the data obtained from the available satellite image will complete the following fields: Date of last satellite image available and Forest area based on GIS.

The layer linked to the management plan folders will include the georeferencing of the cutting authorization maps and will contain the following information: Management plan number; Registry Number, Roll number; Type of management authorized (clear-cutting, thinning, pruning, street opening, etc.); Years of the management resolution and state of management.

The database linked to the GIS will have information contained in the two SIG layers mentioned earlier and another layer extracted from the management plans folders that are



not associated with a polygon in particular rather to the whole approved management plan. The non-spatial data contained in the folders are: Authorized cutting area, Authorized tons to be extracted, Quantity of guides per year and Extracted tons.

In the following image, the Entity-relation Model with which the databased was developed for the digitalization of the Registry folders and Management Plans is presented. The two GIS layers corresponding to forest Registry and Management Plans are represented in yellow (the same is found in the revision and adjustment phase).

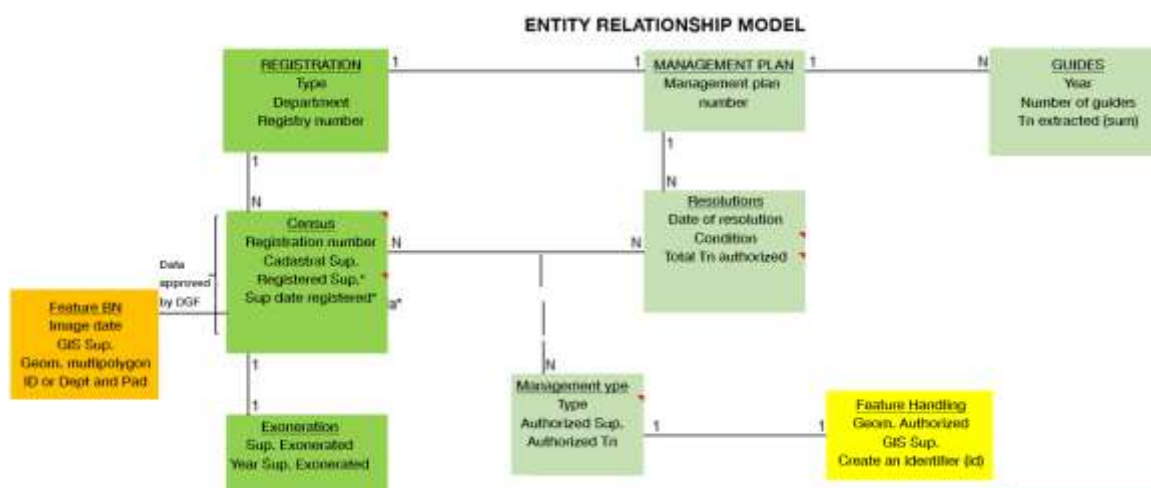


Figure 13 - Entity-Relation Model used to develop the database for digitalization

A form associated with the Entity-Relation Model necessary for the development of the registry Database was created and was used for inputting the information from the folders into the database.

Both the Entity-Relation Model and the form were developed in cooperation by the REDD+ with DGF and SNIA (National System of Agricultural Information – MGAP) technicians.

The digitalization process included the input of the information to the online form and the input of the spatial information from the folders through the use of GIS, including scanning and georeferencing the management plans contained in the folders. For the forest registry the forest was mapped at property level (1:10,000 scale) using the last available satellite image. In the case of the management plans, the mapping was based on what was drawn in the scanned and georeferenced maps, as can be seen in the following figures:

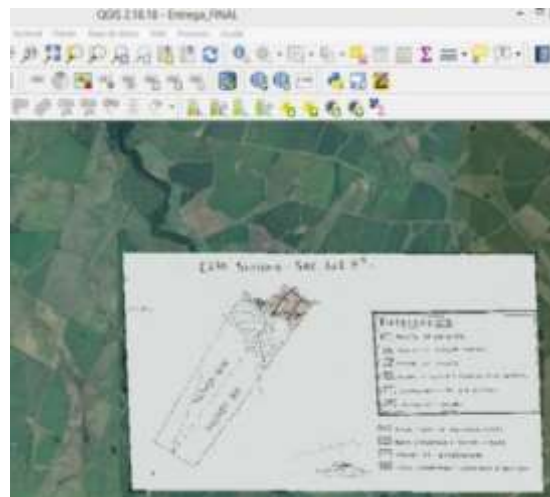
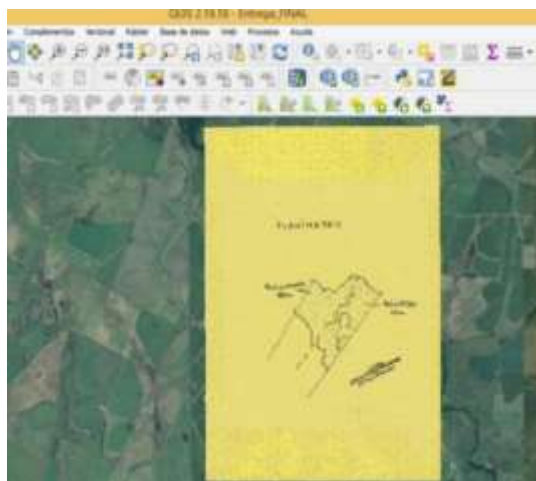


Figure 14 – Mapping of management plans based on scanned and georeferenced maps

The following figure shows the drawing of the management polygons on a roll:

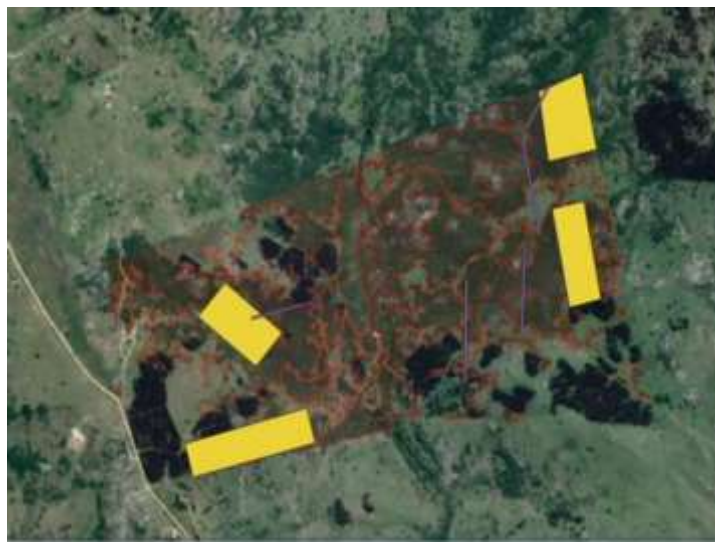


Figure 15 – Drawing of the management polygons on a roll

The following figure shows an example of management plans mapping at property level:



Figure 16 – Mapping of management plants at property level

This work had the realm of the native forest registry folders that are linked to one or more management plans and the registry folders without an associated management plan, registered in the period 2000-2016 or that had area updates or movement in the exemption certificates during said period. This prioritization responds to that being the defined REDD+ reference period.

The work was carried out in the period of September 2018 to November 2019.

In sum, 85% of the folders from 2000-2016 were digitalized. There is a database with that information, associated with a SIG layer of registered forest and a SIG layer with the management plans and the history of the registry and management plans georeferenced, easily accessible in a SIG environment.

Additionally, software was developed for the Forest Management System, which provides services to the DGF of the MGAP.

The following figure (left) shows, in red, the result of all of the registered forests digitalized and to the right the management plans digitalized in this work.

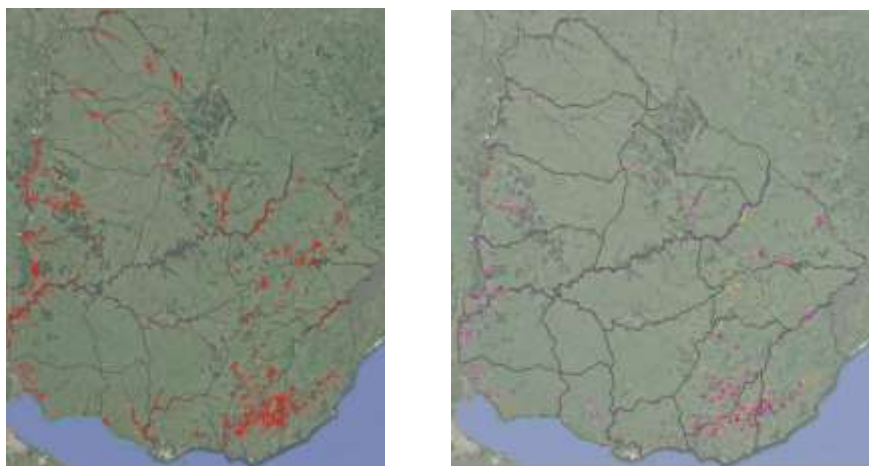


Figure 17 – Map with the results of all of the digitalized registered forests (left) and map with the results of the digitalized management plans (right)

In turn, the Monitoring, Report and Verification System (MRV) has been developed for the REDD+ Uruguay activities, which will enable the generation of an activity protocol, framed in an institutionality, in which the technical roles and tools have been proposed, which will later be able to be used as input for the development of the National Forest Monitoring System.

## 4b: Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards

***Corresponds to Indicators 32 to 34 of the FCPF Assessment Framework:***

In order to face the possible negative impacts and efficiently promote the multiple benefits of REDD+, in 2010, during the sixteenth CMNUCC Conference of the Parties (COP 16) held in Cancun, a group of seven safeguards for REDD+ were agreed upon.

These have the goal of mitigating the risk of negative social and environmental risks that could emerge from the implementation of the REDD+ measures and to promote the benefits that go beyond reducing carbon emissions, such as good forest management practices, effective and full participation, and biodiversity conservation.

In order to fulfill this framework, Uruguay has designed a model for the National Safeguard Information System (SIS) and has defined that the fulfillment report for the safeguards will be completed, in a first instance, at national scale. In Appendix II, an action plan proposal for the implementation of the SIS is presented, considering **(Indicators 32, 33, and 34)**:

- Relevant aspects not related to carbon and the questions of social and environmental safeguards of the REDD+ preparations and the development of capacities associated with these aspects
- The periodic sharing of consistent information about aspects and safeguards not related to carbon;
- Quantitative and qualitative key variables about the impacts on the means of rural life, the conservation of biodiversity, the provision of ecosystem services, key governance factors directly pertinent to REDD+ preparations and safeguard implementations, paying attention to the specific provisions included in the MGAS;
- Mandates to carry out tasks related with aspects not related to carbon and safeguards; and
- Resource needs (for example, required skills, training, hardware/software and budget).

Additionally, there is currently a narrative proposal for each one of the safeguards that makes up the general framework of REDD+ safeguards, which conforms to the reality of the country and in accordance with ENREDD+. The narrative proposal was created along with civil society stakeholders in the last national workshop held as the closing the SESA participative process **(Indicators 32 and 33)**.

The legal and institutional analysis that was carried out in the SESA and MGAS framework is important to the general framework approach for REDD+ safeguards at national level. In this sense, it is anticipated that during the implementation of ENREDD+, the REDD+ governance institutions will have the responsibility of looking out for the fulfillment and respecting of the safeguards, as well as writing regular reports that report on said fulfillment.

In Uruguay it is proposed that the SIS goals should be the following **(Indicator 34)**:

1. Provide information nationally about the form in which the general safeguards framework from Cancun is 'addressed' and 'respected' in the REDD+ implementation phase.
2. Unify the already existing information base for the reporting of the indicators and the creation of reports that follow up on the addressing and respecting of the safeguards.
3. Strengthen the exchange of information and the work on indicators at institutional level that involves REDD+ governance.

Regarding the SIS functions, CMNUCC does not provide any guidelines, beyond the need to 'provide transparent and coherent information that is accessible to all of the interested parties and updated on a regular basis on how all of the Cancun safeguards are being addressed and respected'.

The functions that have been determined of for SIS in Uruguay are the following:

1. Gather information: The information will come from multiple systems and sources of information.
2. Integrating/adding information: Integrate the relevant information and categorize it according to the general safeguards framework.
3. Analyze the information: The data gathered and integrated must be analyzed with the goal of determining to what point the general safeguards framework has been addressed and respected.
4. Disseminate and use the information: Generate documents with information about the addressing and respecting of the general safeguards framework for REDD+ during the implementation phase, as a basis for the creation of summaries of safeguards information for the CMNUCC and for national dissemination.

### III. Methodological Aspects of the Self-Evaluation Process of Interested Parties

The methodology for the participative assessment of the REDD+ readiness process in Uruguay was guided by the “Guide to the FCPF Readiness Assessment Framework”<sup>41</sup>. This guide provides general guidelines established by the FCPF, from which recommendations for carrying out the process in general were taken and the indicators Framework and guiding questions were used for its adaptation to the context of Uruguay.

The antecedents that were assessed in this evaluation process correspond to the ENREDD+ version obtained as part of the consultation during the Strategic Environmental and Social Assessment (SESA) in the five regional workshops and the national workshop. In turn, those technical documents, which deepened and complement the information, were considered, in addition to those local antecedents established to address the REDD+ focus nationally.

Given the context created by the COVID 19 pandemic, the proposed consultation strategy for the assessment was based on virtual outreach and information exchange with different institutional, civil society and private sector stakeholders, for the purposes of collecting the necessary information, sharing pertinent input and avoiding in person contact according to national social distancing measures.

An internal team was designated for carrying out the assessment considering the proposal in three stages, as described below.

#### A) Preparation for the assessment

Annual reports from the beginning of the project execution, the midterm report, and all other information related to the different components were reviewed for the creation of the summary of progress made.

The designated technical team carried out a review and adjustment in the 34 indicators and 58 guiding questions provided in the aforementioned Guide. Both were adjusted to the national circumstances through the verification of the language and the conceptualization to give consistency and continuity to the process of national participation. On their part, the questions that address highly complex technical elements were submitted to an adjustment through the opinion of academic experts and specialized professionals.

In Appendix I, the adaptation of the indicators and the guiding questions can be seen, which was reduced to 55 of the initially expected 58.

After adjusting the guiding questions, online forms<sup>42</sup> were created for the consultation and each question was measured according to a numeric criterion according to the list below.

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<sup>41</sup> Guide to the FCPF Readiness Assessment Framework. Available at: <https://www.forestcarbonpartnership.org/sites/fcp/files/2013/July2013/FCPC%20framework%207-25-13%20SPA%20web.pdf>

<sup>42</sup>: Models of the forms are available at: [https://docs.google.com/forms/d/1ggsQIQUD7ovplvgHcaTKTTd87aJqQ26wcB8jk\\_qVkl/edit](https://docs.google.com/forms/d/1ggsQIQUD7ovplvgHcaTKTTd87aJqQ26wcB8jk_qVkl/edit) & <https://docs.google.com/forms/d/1M4S7YBgM9BkSFC8k2lXwWMDkDz3hpNAnqyhesy08vZ0/edit>



The progress indicators expected in the FCPF Guide to the Readiness Assessment Framework were also adjusted. In the guide the following progress indicators are proposed for each Subcomponent, which are presented in Table 9:

Table 9 – Progress Indicator Proposed by the FCPF.

Progress index by color	Progress
	Not yet demonstrating progress
	Further development required
	Progressing well but further development required
	Significant progress

To better understand the logic of the self-assessment on the part of the participants and adequately adjust the components assessed in the REDD+ Readiness Process, the Assessment Table proposed by FCPF was supplemented, associating numeric factors (1 to 4) to the color column, with the goal of determining through the average of the individual assessments, if the development of the indicators and therefore of the project subcomponents reaches one or another level of progress. Below a table with the adjustment incorporated is presented:

Table 10 – Adjusted Progress Indicator for the participative self-assessment of REDD+ Uruguay

Progress index number	Progress index by color	Progress
1		Not yet demonstrating progress
2		Further development required
3		Progressing well but further development required
4		Significant progress

#### *Identification of relevant stakeholders*

Those stakeholders who accompanied the preparation for REDD+ in Uruguay were considered for this process, which follows the democratic process, open and participative of the calling used, in the same way that it was used in the participative process where the most important criteria was the legitimacy and autonomy of the representation. The participants were divided into four groups:

- Stakeholders linked to the project governance;
- Institutional stakeholders that make up the National Climate Change Response System in which the roundtable REDD+ participates;
- Stakeholders, civil society organizations and academic institutions;
- Specialized experts from the offices that make up the governance of the project, such as academic institutions that were consulted for the aspects linked to FRL, SNMF.

#### **B) Assessment realization**

Prior to sending out the email with the form, the instructions, documents and summaries of the REDD+ Readiness process, a phone call was made to each interested party for the purpose of giving context about the consultation process for the self-assessment.



The forms were sent out in March 2021 and each group of interested parties had two weeks to complete them (i.e., April 2021). In some cases, the phone calls were held during the weeks to follow up, dispel doubts and consultations from the involved stakeholders.

Due to the technical complexity of the components 3 (Forest Reference Level) and 4 (Forest Following System and Information System about Safeguards), the corresponding consultations were directed toward institutional stakeholders: National Directorate of Climate Change, General Forest Directorate, and the National Biodiversity and Ecoservices Directorate. The online form was sent with the guiding questions and the information necessary for the evaluation.

The following procedure was followed from the numeric evaluation that the participants assigned to the formulated guiding questions:

- i. A simple average was generated with the numeric information that each participant assigned to each guiding question, on a scale of 1 to 4, with the total number of participants that responded to it.
- ii. With the averages of each one of the guiding questions associated with each indicator, a new average was obtained to assign the value per indicator. This same operation was executed for obtaining the average value that was assigned for each subcomponent. All of these operations were calculated to one decimal point, to increase the precision of the operations.

The classifications in Table 11 were applied the average obtained for each subcomponent, in order to assign an absolute value to each one, and afterward, the color assigned for the progress indicator solicited by the FCPF Guide was verified with Table 10.

Table 11 - Standardization of the results of the Uruguay REDD+ Readiness Assessment

Ranges of Averages obtained per Indicator	Numeric Progress Indicator
3.5 - 4	4
2.5 – 3.4	3
1.5 – 2.4	2
1 – 1.4	1

### C) Communication and dissemination of the assessment results

The results obtained per indicator are shown below ((Table 12).

Table 12 – Evaluation Results per Indicator

<b>1- Readiness Organization and Consultation</b>	<b>Assessment Preparation Package</b>
<b>1a. National REDD+ Management Arrangements</b>	
Progress Indicator 1: Accountability and transparency	
Progress Indicator 2: Operating mandate and budget	
Progress Indicator 3: Multi-sector coordination mechanisms and cross-sector collaboration	
Progress Indicator 4: Technical supervision capacity	
Progress Indicator 5: Fund management capacity	
Progress Indicator 6: Feedback and grievance redress mechanism	
<b>1b. Consultation, Participation, and Outreach</b>	
Progress Indicator 7: Participation and engagement of key stakeholders	
Progress Indicator 8: Consultation process	
Progress Indicator 9: Information sharing and accessibility of information	
Progress Indicator 10: Implementation and public disclosure of consultation outcomes	
<b>2- Preparation of the REDD+ Strategy</b>	<b>Assessment Preparation Package</b>
<b>2a. Assessment of Land Use, Land-Use Change Drivers, Forest Law, Policy and Governance</b>	
Progress Indicator 11: Assessment and analysis	
Progress Indicator 12: Prioritization of direct and indirect drivers/ barriers to forest carbon stock enhancement	
Progress Indicator 13: Links between drivers/barriers and REDD+ activities	
Progress Indicator 14: Action plans to address natural resource rights, land tenure, governance	
Progress marker 15: Implications for forest law and policy	
<b>2b. REDD+ Strategy Options</b>	
Progress Indicator 16: Selection and prioritization of REDD+ strategy options	
Progress Indicator 17: Feasibility assessment	
Progress Indicator 18: Implications of strategy options on existing sectoral policies	
<b>2c. Implementation Framework</b>	
Progress Indicator 19: Adoption and implementation of legislation/ regulations	N/A
Progress Indicator 20: Guidelines for implementation	N/A
Progress Indicator 21: Benefit sharing mechanism	
Progress indicator 22: National REDD+ registry and system monitoring REDD+ activities	
<b>2d. Social and Environmental Impacts</b>	
Progress Indicator 23: Analysis of social and environmental safeguard issues	
Progress Indicator 24: REDD+ strategy design with respect to impacts	
Progress Indicator 25: Environmental and Social Management Framework	
<b>3- Reference Emissions Level/ Reference Levels</b>	<b>Assessment Preparation Package</b>
Progress Indicator 26: Demonstration of methodology	
Progress Indicator 27: Use of historical data, and adjusted for national circumstances	
Progress Indicator 28: Technical feasibility of the methodological approach, and consistency with UNFCCC/IPCC guidance and guidelines	
<b>4- Monitoring Systems for Forests, and Safeguards</b>	<b>Assessment Preparation Package</b>
<b>4a. National Forest Monitoring System</b>	
Progress Indicator 29: Documentation of monitoring approach	
Progress Indicator 30: Demonstration of early system implementation	
Progress Indicator 31: Institutional arrangements and capacities	
<b>4b. Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards</b>	
Progress Indicator 32: Identification of relevant non-carbon aspects, and social and environmental issues	
Progress Indicator 33: Monitoring, reporting and information sharing	
Progress Indicator 34: Institutional arrangements and capacities	

N/A –Not applicable. This question is thought of in a REDD+ implementation scenario, which is different from the proposal which is being considered for Uruguay which are early implementation actions and potentially do not imply modification of the regulations.

The progress achieved under each indicator can be observed in comparison with the midterm assessment conducted in 2018 (Table 13)<sup>43</sup>.

<sup>43</sup> Mid-term Progress Report URUGUAY – FCPF. Available at: [https://www.forestcarbonpartnership.org/system/files/documents/Uruguay%20MTR%20%20English%20Final%20August%202018\\_0.pdf](https://www.forestcarbonpartnership.org/system/files/documents/Uruguay%20MTR%20%20English%20Final%20August%202018_0.pdf)

Table 13 - Results of the Assessment by Indicator (midterm – 2018)

<b>1 - Organización y consultas para la preparación</b>	<b>Meta</b>
<b>1a. Mecanismos nacionales de gestión del programa de REDD</b>	<b>Preparación</b>
Indicador de Progreso 1: Rendición de cuentas y transparencia	
Indicador de Progreso 2: Mandato operativo y presupuesto	
Indicador de Progreso 3: Mecanismos de coordinación multisectorial y colaboración intersectorial	
Indicador de Progreso 4: Capacidad de supervisión técnica	
Indicador de Progreso 5: Capacidad de gestión de fondos	
Indicador de Progreso 6: Mecanismo de intercambio de información y compensación de reclamaciones	
<b>1b. Consulta, participación y difusión social</b>	
Indicador de Progreso 7: Participación e intervención de las principales partes interesadas	
Indicador de Progreso 8: Proceso de consulta	
Indicador de Progreso 9: Intercambio de información y acceso a la información	
Indicador de Progreso 10: Ejecución y divulgación pública	
<b>2 - Preparación de la estrategia de REDD+</b>	<b>Meta</b>
<b>2a. Evaluación sobre el uso de la tierra, los factores causantes de los cambios en el uso de la tierra, la ley forestal, la política y la gestión</b>	<b>Preparación</b>
Indicador de Progreso 11: Evaluación y análisis del uso de la tierra	
Indicador de Progreso 12: Establecimiento de prioridades de los factores causantes directos e indirectos/las barreras para el aumento de las reservas de carbono de los bosques	
Indicador de Progreso 13: Relaciones entre factores causantes/barreras y actividades REDD+	
Indicador de Progreso 14: Planes de acción para abordar los derechos a los recursos naturales, la tenencia de la tierra y la gestión.	
Indicador de Progreso 15: Implicaciones para las leyes y políticas sobre bosques	
<b>2b Opciones de estrategia de REDD+</b>	
Indicador de Progreso 16: Presentación y establecimiento de prioridades de las opciones de estrategia de REDD+	
Indicador de Progreso 17: Evaluación de la viabilidad	
Indicador de Progreso 18: Implicaciones de las opciones de estrategia sobre las políticas sectoriales existentes	
<b>2c. Marco de ejecución</b>	
Indicador de Progreso 19: Adopción e implementación de legislación/reglamentos	
Indicador de Progreso 20: Directrices para la implementación	
Indicador de Progreso 21: Mecanismos de reparto de beneficios	
Indicador de Progreso 22: Registro nacional de REDD+ y actividades del sistema de seguimiento de REDD+	
<b>2d. Impactos sociales y ambientales</b>	
Indicador de Progreso 23: Análisis de las cuestiones relacionadas con las salvaguardas sociales y ambientales	
Indicador de Progreso 24: Diseño de la estrategia de REDD+ con respecto a los impactos	
Indicador de Progreso 25: Marco de gestión ambiental y social	
<b>3 - Niveles de referencia de las emisiones/niveles de referencia</b>	<b>Meta</b>
Indicador de Progreso 26: Demostración de la metodología	<b>Preparación</b>
Indicador de Progreso 27: Uso de datos históricos y ajustados a las circunstancias nacionales	
Indicador de Progreso 28: Viabilidad técnica del enfoque metodológico, y congruencia con la orientación y las directrices de la CMNUCC/el IPCC	
<b>4 - Sistemas de seguimiento forestal y de información sobre las salvaguardas</b>	<b>Meta</b>
<b>4a Sistema de seguimiento forestal nacional y salvaguardas</b>	<b>Preparación</b>
Indicador de Progreso 29: Documentación del enfoque de seguimiento	
Indicador de Progreso 30: Demostración de la ejecución temprana del sistema	
Indicador de Progreso 31: Mecanismos y capacidades institucionales	
<b>4b Sistema de información para múltiples beneficios, otros impactos, gestión y salvaguardas</b>	
Indicador de Progreso 32: Identificación de los aspectos pertinentes no relacionados con el carbono y de las cuestiones sociales y ambientales	
Indicador de Progreso 33: Seguimiento, presentación de informes e intercambio de información	
Indicador de Progreso 34: Mecanismos y capacidades institucionales	

The assessment per indicator that was realized in the midterm is included in relation to the goal of the preparation, which is what allows for comparing to the results of the assessment conducted upon finalizing the project (Table 14).

The input from the evaluations conducted were used to complement the progress report and are compiled in this Readiness Package (R-Package), in which the progress by the country is documented, the lesson learned are collected, and the deficiencies and pending activities are evaluated..

In this way the results are presented by component, subcomponent and indicator and a summary of the recommendations made by interested parties is included. Of the points identified by the interested parties or as strengths, the following are mentioned:

- The existence of institutional agreements and coordination agreements that have allowed for satisfactory execution;
- The existing legal framework in the country is robust which has allowed for adequate analyses.
- Strengthening the technical capacities of the governance institutions has occurred
- The existence of participation platforms is highlighted, which has facilitated the consultation of the key stakeholders.

- The funds and financing have been well-managed now that different aspects of REDD+ readiness process have been met.
- Many studies and analyses have been conducted which give an accounting of the country's situation in the aspects linked to native forest management and climate change.

However, the principle weaknesses identified are associated with aspects of communication and dissemination of the information gathered in the preparation for REDD+ for the country. They also mention the lack of budget allocation for REDD+ activities, and that this remains dependent upon international funding sources.

In turn, lack of clarity has been indicated with respect to the distribution of benefits and the potential beneficiaries.

## IV. Conclusions

In accordance with the last annual progress report, presented to the FCPF in June 2021 coincidentally with the completion of the REDD+ Uruguay Readiness Project, all of the subcomponents were evaluated as finished in the framework of support from the FCPF.

The general objective of the donation for supporting Uruguay in the strengthening of its capacities to prepare for REDD+ has been completed, as can be seen in the “Completion report”<sup>44</sup>:

Category Description	USD
(1) Goods, Consultants’ Services, Non-consulting Services, Workshops and Training, and Operating Costs	3,799,970.53
<b>Total Disbursed</b>	<b>3,799,970.53</b>
Cancellation value as of February 03, 2022	29.47
<b>Original Grant Amount</b>	<b>3,800,000.00</b>

The principle lessons learned in the REDD+ Uruguay readiness process are shared below, as are the areas that require more development (included in the action plans mentioned earlier).

The case of Uruguay is very unique in the REDD+ framework, different from the majority of the REDD+ countries. Uruguay is a country with low native forest coverage and these forests are protected by Law, so deforestation events are minimal. The principle problem is associated with degradation processes and the opportunity for REDD+ Uruguay is in increasing carbon stocks, restoration and sustainable management of its forests. This meant great challenges, both technical and methodological during the entire process.

We highlight the importance of having clear and formalized institutional agreements since the beginning of the project’s execution. This as a fundamental element for the success of the process in Uruguay. The importance of inter-institutional coordination for implementing REDD+ in the country is emphasized. Uruguay has vast experience in coordinating actions among different institutions nationally, but REDD+ requires coordination with different levels of government (national, departmental and local) and this implies an even greater challenge.

In light of recent changes in the structure of the government, the need for a “deepening and redefining of the institutional agreements (between institutions and key stakeholders) necessary for the operationalization / implementation of the ENREDD+ action lines” was identified.

Having a broad and robust legal framework has been an advantage for Uruguay in this process. The same occurs with the land property, since in Uruguay there is clarity and legal security regarding this issue, with a delineated and updated land registry, that allows for knowing which roll any point of land belongs to and what are its borders, along with other relevant information. However, the country does not have a definition for the “property / right to carbon”. Consequently, it is necessary to continue examining this issue nationally.

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<sup>44</sup> Available at:

[https://www.forestcarbonpartnership.org/system/files/documents/completion\\_report\\_uruguay.pdf](https://www.forestcarbonpartnership.org/system/files/documents/completion_report_uruguay.pdf)



The need to continue strengthening the technical capacities of the national teams is reinforced, in order to carry these processes forward. REDD+ has complex technical specificities and requires determined capacities and knowledge for its successful implementation, for which this must be a key component in the framework of all of the projects that define REDD+ material in Uruguay. It was that way in the framework for the Readiness Project for REDD+. And this implied that the institutional technical capacities have been strengthened in an important way as a result of this Project. However, the country recognizes the importance of a “better identification and evaluation of the “key gaps in governance and knowledge, limitations of the capacity in the context of REDD+”.

The consultation and participation process has strengthened the spaces of dialogue and participation about Uruguay’s forests. It is important to correctly manage the expectations that can be created nationally about REDD+, both in terms of the risks that its implementation can imply as well as in terms of the benefits that can be obtained by the different stakeholders involved. The knowledge and information about the native forest in Uruguay has been improved, which will mean improvements in decision-making for its management.

The REDD+ context in Uruguay entails great challenges, technical and methodological, for developing methods and tools that enable the determining of activity data and analyzing the carbon dynamic related to these REDD+ activities. The progress in this sense has been very significant during the execution of the REDD+ Readiness Project, but it is necessary to continue the efforts by adjusting the methods, in a way that allows for improving the calculations in the particular conditions of Uruguay, including:

- Identification, evaluation and prioritization of “direct and indirect drivers/barriers for the improvement of the forest carbon reserves”;
- Identification and evaluation of “important inconsistencies between the priority REDD+ strategic options and the policies or programs in other sectors related to the forest sector; and an agreed-upon timeline and process for resolving the inconsistencies and integrating the REDD+ strategic options with the relevant development policies”;
- Development of “allometric equations applicable to different types of forest”;
- Inclusion of “other carbon stores” (meaning, soil carbon);
- Inclusion of “GHG emissions by native forest degradation”;
- Calculation of the “potentials for emissions reductions anticipated from the interventions and how they informed the design of the REDD+ strategy”;
- Greater development and implementation of the National Forest Monitoring System (SNMF);
- Development and implementation of an “operational SIS”;
- Development and implementation of a “National REDD+ Registry and following system of REDD+ activities”; and
- Development and implementation of a “benefit distribution mechanism”.

It is important to ensure that all of the consultation jobs that are contracted as part of these projects contribute to the strengthening of the technical capacities of the institutional teams that will later be responsible for the sustainability of the different tasks and activities linked to REDD+. The same pertains to all the information, databases, documents and tools that are

developed as part of these jobs. It must be ensured that they remain available for national institutions responsible for REDD+.

Uruguay is working on the creation of a concept note to present to the Green Climate Fund, with the support of the FCPF, about the base of institutional agreements defined by the country to carry forward the REDD+ Program and the accomplishments obtained in the readiness stage. The objective of this proposal is to implement the first demonstrative REDD+ activities in Uruguay that will directly contribute to the mitigation objectives conditional on additional specific means of implementation included in the First Nationally Determined Contribution to the Paris Agreement linked to native forest. It will allow, at the same time, to consolidate and conclude the work accomplished during the REDD+ preparation, developed with the support of the FCPF and the World Bank.



## APPENDIX I. Indicator Adjustments and Guiding Questions

Subcomponent	Indicator	Guiding Question	Consultation meeting
Subcomponent 1a: National REDD+ Management Arrangements	1. Accountability and transparency	¿Have institutional agreements been established and are they in operation for the REDD+ governance? Does these operate transparently and with accountability?	Institutional consultation
	2. Operational mandate and budget	2a. Do the national institutions linked to REDD+ act with a legal framework and clear mandates, consistent with other institutions?	Institutional consultation
		2b. Do the national institutions linked to REDD+ act with adequate, foreseeable and sustainable budgets?	Institutional consultation
	3. Multi-sector coordination mechanisms and cross-sector collaboration	Do the REDD+ governance institutions and the management mechanisms guarantee that the REDD+ activities are coordinated, integrated and influence the general national or sectoral policy frameworks?	Institutional consultation
	4. Technical supervision capacity	With what level of efficacy and efficiency is the REDD+ governance directing and supervising the readiness activities?	Institutional consultation
	5. Fund management capacity	In what way are the institutions and mechanisms demonstrating that they conduct an effective, efficient, and transparent fiscal management?	Institutional consultation
	6. Feedback and grievance redress mechanism	6a. Has a complaint, grievance and possible conflict resolution mechanism (MARC) been nationally designed?	Institutional consultation
		6b. Is the mechanism transparent and impartial and have a clearly defined mandate and experience and adequate resources?	Institutional consultation
		6c. Does the (MARC) mechanism foresee ways in which the potentially affected stakeholders know about it and can access it?	Institutional consultation
Subcomponent1b: Consultation, Participation, and Outreach	7. Participation and engagement of key stakeholders	7a. Were the spaces and mechanisms of participation of interested parties adequate so that participation was full and effective during the readiness process?	Multi-stakeholder consultation
		7b. Were the mechanisms of participation used adequate to ensure that the different stakeholders have the capacity to participate effectively in the REDD+ preparation and execution?	Multi-stakeholder consultation
	8. Consultation processes	8a. Were the actions developed in the process clear, inclusive, and transparent and was a timely access to the information facilitated in a culturally appropriate way?	Multi-stakeholder consultation
		8b. Were the processes of involvement that the country used appropriate for identifying the interested parties during the consultations?	Multi-stakeholder consultation

Subcomponent	Indicator	Guiding Question	Consultation meeting
		8c. Has the country drawn upon the existing networks of indigenous organizations to improve the consultation process and participation?	Multi-stakeholder consultation
		8d. To what extent has the consultation process taken into account the perspective of gender?	Multi-stakeholder consultation
	9. Information sharing and accessibility of information	9a. Has REDD+ governance demonstrated a transparent and consistent exchange and outreach (in relation to all of the readiness activities, such as the development of the REDD+ strategy in a culturally appropriate way)?	Multi-stakeholder consultation
		9b. Are there appropriate channels of communication used to guarantee that the interested parties are well informed, especially those that have a limited access or do not have access to the information?	Multi-stakeholder consultation
	10. Implementation and public disclosure of consultation outcomes	10. Are the results of the consultations about REDD+ management, the development of the strategy and the technical activities related to the development of the reference levels and the following and information systems integrated (incorporated, disseminated, publicly shared and taken into account)?	Institutional consultation
Subcomponent: 2a. Assessment of Land Use, Land-Use Change Drivers, Forest Law, Policy and Governance	11. Assessment and analysis	11. Have the recent historic trends in land use, rights to resources and questions related to forest legislation, policies and management been analyzed?	Institutional consultation
	12. Prioritization of direct and indirect drivers/barriers to forest carbon stock enhancement	12. Were the principle drivers of deforestation, forest degradation and barriers to the increase of carbon stocks in the native forests analyzed?	Institutional consultation
	13. Links between drivers/barriers and REDD+ activities	13. Were connections between the principle causal factors and/or the barriers to the activities that increase the forest carbon reserves (when undertaken) and the REDD+ activities identified?	Institutional consultation
	14. Action plans to address natural resource rights, land tenure, governance	14. Do the activities proposed in the strategy address pertinent themes about land use, land and forest-ownership, and rights to resources?	Institutional consultation
	15. Implications for forest law and policy	15. Did the analyses conducted in the strategy framework point to implications for law and policies about forests and other pertinent long-term questions?	Institutional consultation
Subcomponent: 2b. REDD+ Strategy Options	16. Selection and prioritization of REDD+ strategy options	16a. Have the ENREDD+ actions been prioritized following an integral evaluation of the direct and indirect causal factors of deforestation, the barriers to the improvement activities and/or the influence of other factors, when proceeding?	Institutional consultation
		16b. Were ENREDD+ actions selected by means of a transparent and participative process?	Multi-stakeholder consultation
	17. Feasibility assessment	17a. Were the ENREDD+ actions examined and was its priority according to its social and environmental viability, risks and opportunities determined?	Institutional consultation

Subcomponent	Indicator	Guiding Question	Consultation meeting
	18. Implications of strategy options on existing sectoral policies	17b. Were the ENREDD+ actions examined and their priority determined according to the cost/benefit analysis?	Institutional consultation
		18a. Have important incompatibilities between the ENREDD+ actions and the policies or programs in other sectors related to the forest sector (for example, transportation, agriculture) been identified?	Institutional consultation
		18b. Were ways of resolving the incompatibilities identified?	Institutional consultation
Subcomponent: 2c. Implementation Framework	19. Adoption and implementation of legislation/ regulations	19. Has the legislation been adapted according to the ENREDD+ suggestions?	Not applicable. This question is conceived in a REDD+ implementation scenario, which is different from the proposal that is being considered for Uruguay, which are early implementation actions that potentially do not imply modification to the legislation.
	20. Guidelines for implementation	20. What evidence is there that the REDD+ implementation framework defines the rights to carbon, the mechanisms of distribution of benefits, the REDD+ funding modalities, the proceedings for official authorizations (for example, REDD+ pilots or projects) and the grievance mechanisms?	Not applicable. This question is conceived in a REDD+ implementation scenario, which is different from the proposed that is being considered

Subcomponent	Indicator	Guiding Question	Consultation meeting
			for Uruguay, which are early implementation actions, which many of these questions do not apply to.
	21. Benefit sharing mechanism	What degree of progress does the design of a mechanism for the distribution of benefits have with elements that ensure its transparency and traceability?	Institutional consultation
	22. National REDD+ registry and system monitoring REDD+ activities	Is there a system or a register of georeferenced information of the REDD+ program designated and ready for operation, that has all of the relevant information and ensures public access to the information about REDD+?	Institutional consultation
	23. Analysis of social and environmental safeguard issues	Have the issues related to the social and environmental safeguards for Uruguay been identified/analyzed by studies or relevant assessment and in consultation processes?	Multi-stakeholder consultation
	24. REDD+ strategy design with respect to impact	How were the SESA results and the identification of social and environmental impacts (both positive and negative) used in the ENREDD+ design?	Institutional consultation
	25. Environmental and Social Management Framework	Is there an Environmental and Social Management Framework (MGAS) that considers the management of the environmental and social risks and the possible impacts related to REDD+ activities?	Institutional consultation
Component 3: Reference Emissions Level / Reference Levels	26. Demonstration of methodology	26a. Are the preliminary forest reference emissions level (FREL) and the forest reference level (FRL) presented (as part of the readiness package) using a clearly documented methodology based on a phased approach?	Institutional consultation
		26b. Are plans for new steps and data needs provided?	Institutional consultation
	27. Use of historical data, and adjusted for national circumstances	27a. Does the information generated take into account the historic data in the establishment of the FREL/FRL?	Institutional consultation
		27b. Are data and documentation provided in a sufficiently transparent way to be able to independently reconstruct or prove the FREL/FRL	Institutional consultation
	28. Technical feasibility of the methodological approach, and consistency with UNFCCC/IPCC guidance and guidelines	28. Are the NRE/NR (presented as part of the readiness package) based on transparent, complete and precise information, compatible with the CMNUCC guidelines and guidance most recently released by the Intergovernmental Panel of	Institutional consultation

Subcomponent	Indicator	Guiding Question	Consultation meeting
		Experts on Climate Change (IPCC); sufficient enough to allow the technical evaluation of the data series, the approaches, the methods, the models, if proceeding, and the assumptions used in the creation of the NRE/NR?	
Subcomponent: 4a. National Forest Monitoring System	29. Documentation of monitoring approach	29a. Are there reasons or clear analytic evidence that justify the selection of the methodology used or proposed for the SNMF (combination of tele-observation systems and inventories about the carbon terrain of the forests; resolution, coverage and precision of the systems, inclusion of carbon and gas reservoirs) and the improvement over time?	Institutional consultation
		29b. Has the conceptual design system been reviewed at the technical level and approved nationally, and is it congruent with the existing and new national and international guidelines?	Institutional consultation
		29c. Are possible sources of uncertainty identified wherever possible?	Institutional consultation
	30. Demonstration of early system implementation	30a. Does the designed system have capacity to monitor the specific activities that have been given priority in the national REDD+ strategy?	Institutional consultation
		30b. Is an eventual emissions displacement (filtration/leak) identified and evaluated in the system?	Institutional consultation
		30c. Have (participants/consultants) from institutions with relevant expertise been involved in the SNMF design? Does the SNMF foresee participation or consultation with the interested parties in the development and/or early execution of the system?	Institutional consultation
		30d. Have the changes in the expansion and the content carbon of the forests (and the associated GHG emissions) been identified in relation to the baseline used for the FREL/FRL?	Not Applicable. REDD+ actions have not been implemented yet in Uruguay.
	31. Institutional arrangements and capacities	31a. Are the mandates to carry out the tasks related to forest monitoring clearly defined (for example, satellite data processing, forest inventory, exchange of information)?	Institutional consultation
		31b. Has the system conceptual design been defined transparently in order to publicly share the data about the forests and emissions?	Institutional consultation

Subcomponent	Indicator	Guiding Question	Consultation meeting
		31c. Have the associated resource needs, necessary capacities, training, physical component and computer programs, and the budget been identified and calculated?	Institutional consultation
Subcomponent: 4b. Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards	32. Identification of relevant non-carbon aspects, and social and environmental issues	32. Have the non-carbon forest benefits been identified? Have the social and environmental safeguards been addressed?	Institutional consultation
	33. Monitoring, reporting and information sharing	33a. Is a transparent system design that allows for periodically sharing data about aspects not related to carbon and safeguards available?	Institutional consultation
		33b. Has access to the following information been provided: key quantitative or qualitative variables with respect to the effect on the rural population's means of subsistence, the conservation of biodiversity, the provision of ecosystem services, the key management factors directly pertinent to the execution of REDD+ and the application of safeguards, paying attention to the specific provisions included in the MGAS?	Institutional consultation
	34. Institutional arrangements and capacities	34. Have the institutional capacities and mechanisms required to carry out REDD+ actions been identified?	Institutional consultation

APPENDIX II. Action Plans

The action plans are also presented separately, in Excel, as to facilitate their visualization

Component	Subcomponent	RESULTS	Key performance indicators	Baseline	Objectives					Support Needs			Main partners in the implementation	FCPF Assessment Framework Indicators that will be completed and strengthened with the action plan results
		Main Result			Year 1	Year 2	Year 3	Year 4	Year 5	Financial	Technical	Capacity strengthening		
Readiness Organization and Consultation	Subcomponent 1a: National REDD+ Management Arrangements	Re-define the institutional agreements (between the institutions and key stakeholders) necessary for the operationalization/ implementation of the ENREDD+ action lines	1) List of institutions/ stakeholders 2) Training activities completed 3) Proposals for institutional agreements and assessment study 4) Legal document with the institutional agreements 5) Dissemination activities of the institutional agreements	Institutional agreement used in the preparation phase:  - Described in the package (e.g., Figure 1. REDD+ Uruguay institutional agreements)  - Ministerial Agreement - REDD+/FCP Uruguay Readiness Project	Identification of institutions/key stakeholders  REDD+ high level training  Definition of leading institutions for the discussion process and definition of the agreements	First outline of the agreements proposals  Evaluation of the legal implication of the proposals	Formalizations of the institutional agreements (e.g., decrees) for operationalization / implementation of ENREDD+ action lines  Dissemination of institutional agreements	***	***	US\$ 104,000	***	Legal advice based on “lessons learned from other countries” considering national circumstances	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	Indicator 1 – Accountability and transparency Indicator 2 – Operational mandate and budget Indicator 3 – Institutional mechanisms of coordination and collaboration Indicator 4 – Technical supervision capacity Indicator 5 – Fund management capacity
	Subcomponent 1b: Consultation, Participation, and Outreach	No action plan has been identified for this subcomponent	***	***	***	***	***	***	***	***	***	***	***	***
REDD+ Strategy Preparation	Subcomponent 2a: Assessment of Land Use, Land-Use Change Drivers, Forest Law, Policy and Governance	Deepen the identification and evaluation of rights to natural resources, means of living and aspects of governance in regions prioritized for specific REDD+ programs	1) Base document with lessons learned from other countries and evaluation of models/experiences 2) First version of the model for the country 3) Legal document with proposal for the model for the country 4) Dissemination	<a href="#">Proyecto REDD+ Uruguay (2020).</a> <a href="#">Tenencia de tierra y bosque nativo en Uruguay.</a> <a href="#">Chiesa, V., Rodríguez, P., Gasparini, K., García, M.L.,</a>	Identification of lessons learned in other countries for the definition / establishment of the “property / right to carbon”  Evaluation of models/international experiences considering the	Inter-institutional discussion activities for the definition of the model for the country	Definition of the most appropriate model for the country for the establishment of “property / rights to carbon”, considering different “payment models” to be implemented	***	***	US\$ 158,000	Not applicable	Legal advice based on the “lessons learned from other countries”, considering the national circumstances	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries  Ministry of Economy and Finances	Indicator 11 – Land use assessment and evaluation



		Deepen the identification and assessment of breaches in governance, knowledge and capacities in the REDD+ context, including the coordination with other governance frameworks existing in the country (if they are identified)	activities for the model chosen for the country	<a href="#">Olivera, J., Rama, G. y Martino, D. Ministerio de Ganadería, Agricultura y Pesca - Ministerio de Vivienda, Ordenamiento</a>	national circumstances		under the ENREDD+ action lines  Dissemination of the model selected for the country								Indicator 14 – Action plans for addressing the rights to natural resources, land ownership and management
		Identify, evaluate and prioritize the direct and indirect causes and the barriers to the increase of carbon stocks in the native forest	1) Areas map and list of priority systems 2) List of barriers and opportunities for increasing carbon stock in the areas / priority systems 3) Base document with the results of the cost-benefit analysis 4) Base document with the areas’ carbon stock increase potential / priority systems	Forest Reference Level (Project REDD+ Uruguay = Version 1 / December 2021)	Identification of areas / priority systems for the increase of carbon stock  Identification / review of the barriers and opportunities for increasing carbon stock in the areas / priority systems	Cost-benefit analysis for the increase of carbon stock in the areas / priority systems  Calculation of the potential of increasing carbon stock in the areas / priority systems	***	***	***	US\$ 153,000	Creation, training and sustainability of the specialized technical team		Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	Indicator 12 – Establishment of priorities of direct and indirect driving factors / barriers to the increase of forest carbon reserves Indicator 13 – Relationship between driving factors/barrier and REDD+ activities Indicator 15 – Implications for laws and policies about the forest	
	Subcomponent 2b: REDD+ Strategic Options	Identify and evaluate possible inconsistencies between the REDD+ strategic lines and other policies and programs related to the forest sector; create a timeline and process for resolving said inconsistencies (if identified) in a way to integrate the REDD+ strategy options with the most relevant development policies	1) List of principal national policies with possible relationships to the direct and indirect causes of deforestation and forest degradation 2) Base document with the possible inconsistencies identified between the policies analyzed and the ENREDD+ action lines 3) Base document with strategy for mainstreaming ENREDD+ action lines in other policies and programs	Environmental and Social Management Framework (Project REDD+ Uruguay Version 1 / June 2021)  National Climate Change Policy (2017)	Mapping of the principle national policies with possible relationship to the direct and indirect causes of deforestation and forest degradation  Identification of possible inconsistencies between the policies analyzed and the ENREDD+ action lines  Creation of strategy proposal for the mainstreaming of the ENREDD+ action lines	***	***	***	***	US\$ 51,000	***	***	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	Indicator 18 – Implications of the strategy options for existing sectoral policies	

		Calculate the potential emissions reduction / increase of carbon sequestration anticipated from the interventions and analyze its incidence for the REDD+ strategy design	1) List of ENREDD+ action lines and priority areas where the possibility to quantify the reduction of emissions and/or increase of carbon stock is identified 2) Base document with methodology for the calculation of the emission reduction potential and/or increase of carbon stock 3) Base document with the calculation of the emission reduction potential and/or increase of carbon 4) Base document with proposals for priority action lines	Forest Reference Level (Project REDD+ Uruguay Version 1 / December 2021)	Identification of methodologies for the calculation of emissions reduction potential and/or increase of carbon stock	Identification of priority ENREDD+ action lines where the possibility for quantification of the emissions reductions and/or increase of carbon stock is identified	Calculation of the emissions reduction potential and/or increase of carbon stock	Re-evaluation of priority action lines  Evaluation of the potential for scaling the priority actions nationally	***	US\$ 174,000	***	Technical advice for the identification of calculation methodologies	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	<i>Indicator 16</i> – Presentation and establishment of priorities for REDD+ strategy options
	<b>Subcomponent 2c: Implementation Framework</b>	Develop and implement a distribution of benefits mechanism	1) List of ENREDD+ benefits (under different scenarios) 2) List of indicators for measuring ENREDD+ results 3) Base document with the conceptual model for the distribution of benefits mechanism 4) Base document with institutional agreements specific to the operationalization of the mechanism 5) Distribution of benefits mechanism implemented	No base document	<i>In the first year inputs for other action plans for future activities will be collected</i>	Definition of indicators for measuring ENREDD+ results	Study for identifying and quantifying the ENREDD+ benefits (under different scenarios)	Creation of conceptual model for the distribution of benefits mechanism  Definition of specific institutional agreements for the operationalization of the mechanism	Implementation of the distribution of benefits mechanism	US\$ 138,000		Legal and technical advice based on “lessons learned from other countries” considering the national circumstances	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries  Ministry of Economy and Finances	<i>Indicator 21</i> – Distribution of benefits mechanism

		Develop and implement the REDD+ Registry for monitoring REDD+ activities	1) Base document with the conceptual model for the registry system 2) List of information necessary for the registry based on benefits generated 3) Base document with institutional agreements specific to the operationalization of the registry 4) Registry system implemented	No base document	<i>In the first year inputs for other action plans for future activities will be collected</i>	<i>In the second year input for other action plans for future activities will be collected</i>	Creation of the conceptual model for the registry system  Identification of necessary information for the registry based on benefits generated	Coordinate efforts with other registry systems (e.g., NDC)  Definition of specific institutional agreements for the operationalization of the registry	Implementation of the registry system	US\$ 54,000	***	Legal and technical advice based on “lessons learned from other countries” considering the national circumstances	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	<i>Indicator 22 – National REDD+ Registry and REDD+ activities monitoring system</i>
	<b>Subcomponent 2d: Social and Environmental Impacts</b>	No action plan for this subcomponent has been identified	***	***	***	***	***	***	***				***	***
<b>Reference Emissions Level / Reference Levels</b>	<b>Component 3: Reference Emissions Level / Reference Levels</b>	Develop allometric equations applicable to different types of forest  Include other carbon pools (ex. soil carbon)	1) List of priority areas 2) Base document with TLS methodology for the development of the allometric equations 3) Base document with the methodology for soil carbon monitoring 4) National definition for degradation 5) Base document with methodology for monitoring degradation 6) List of the stratification of identified priority areas 7) List of plots for	Forest Reference Level (Project REDD+ Uruguay Version 1 / December 2021) Uruguay -  Project REDD+ Uruguay (2020). Native forest of Uruguay invasive alien species	Identification of priority areas (coordinated with other action plans)  Evaluation of TLS methodology for the development of allometric equations  Identification of the methodology for soil carbon monitoring (consistent with the UNFCCC and IPCC guidelines)	Identification of methodology for monitoring degradation (consistent with UNFCC and IPCC guidelines)  Definition of the stratification in identified priority areas (e.g. by type	Data collection and processing	Data collection and processing	Data collection and processing  Creation of base document with allometric equations and reviewed degradation and deforestation emissions approximates for live biomass and soil carbon	US\$ 792,000	***	Technical advice for the training of the TLS data processing team and identified monitoring methodologies	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	<i>Indicator 27 – Use of historic data and data adjusted to the national circumstances</i> <i>Indicator 28 – Technical viability of the methodological focus and congruence with CMNUCC/IPCC guidelines and directions</i>

		Include GHG emissions by native forest degradation processes	monitoring 8) Base document with allometric equations and revised degradation and deforestation emissions approximates for living biomass and soil carbon	monitoring by remote sensing. Olivera, J.M., Riaño, M.E., Etchebarne, V., García de Souza, M.L. and Justo, C. Ministry of Livestock, Agriculture and Fisheries Ministry of Housing, Land Planning and Environment Montevideo)  Manual of native forest in Uruguay management (2018 version)	Creation of a definition for degradation	of forest and causes of degradation)  Identification of plots for monitoring								
<b>Monitoring Systems for Forests, and Safeguards</b>	<b>Subcomponent 4a: National Forest Monitoring System</b>	Deepen the development and implement the National Forest Monitoring System	1) List of technical-financial needs for the operationalization of the SNMF  2) Institutional agreements for the SNMF  3) Monitoring protocols  4) SNMF implemented	Conceptual Design of the National Forest Monitoring System (Project REDD+ Uruguay = Version 1 / December 2021)	Evaluation of the conceptual design for the identification of the technical-financial needs for its operationalization	Creation of institutional agreements specific to the SNMF in coordination with other monitoring systems (e.g. NDC)  Creation of monitoring protocols	SNMF implementation	***	***	US\$ 216,000	Creation of image bank for unified use in the country  Implementation of adequate infrastructure for the continual operationalization of the SIG laboratory	Legal and technical advice based on “lessons learned from other countries” considering the national circumstances  Technical advice for training the team in data processing  Technical advice for training the team in the use of new technologies, methodologies and tools	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	<i>Indicator 29</i> – Documentation of the monitoring focus <i>Indicator 30</i> – Demonstration of the early execution of the system <i>Indicator 31</i> – Mechanisms and institutional capacities

	<b>Subcomponent 4b: Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards</b>	Deepen the development and implement the Safeguard Information System	1) List of technical-financial needs for the operationalization of the SIS  2) Institutional agreements for the SIS  3) Monitoring protocol  4) SIS implemented	Safeguards Information System (draft) (Project REDD+ Uruguay - Version 1 / December 2021)	Evaluation of the conceptual design for the identification of technical-financial needs for its operationalization	Creation of institutional agreements specific to the SIS in coordination with other monitoring systems  Creation of monitoring protocols	SIS implementation	***	***	US\$ 108.000	***	Legal and technical advice based on “lessons learned from other countries” considering the national circumstances	Ministry of Environment  Ministry of Livestock, Agriculture and Fisheries	<i>Indicator 32</i> – Identification of pertinent aspects not related to carbon and of social and environmental questions <i>Indicator 33</i> – Monitoring, presentation of reports and exchange of information <i>Indicator 34</i> – Mechanisms and institutional capacities
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