



## Rotunda Forest Carbon Project (Under Development)



# GreenRaise

Document Prepared by GreenRaise Consulting GmbH

|                      |                                                                                                                                                                                                                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project Title</b> | Rotunda Forest Carbon Project                                                                                                                                                                                                                                                                      |
| <b>Version</b>       | 1.1                                                                                                                                                                                                                                                                                                |
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# 1. Project Details

## 1.1. Summary Description of Project

The objective of the carbon offset project is to achieve greenhouse gas (GHG) emission reductions and removals through the cessation of commercial harvesting. The project will implement the methodologies outlined with the Verified Carbon Standard (VCS) VM0012 – Improved Forest Management in Temperate and Boreal Forests (LtPF), v1.2.

The project is located on freehold 1,556 hectare property within the Hunedoara County of Romania. Prior to the implementation of the project, the lands were managed under the forest management plan “Fondului Forestier Proprietate Privata Apartinand S.C. Rotunda S.R.L., Miercurea Ciuc”.

Through the use of the Operational-Scale Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) - Version 1.2, carbon emission offsets will be calculated by comparing a project scenario of the cessation of commercial harvesting, to a baseline scenario. The most plausible baseline scenario consists of the continuation of allowable commercial harvesting for the next 100 years. Under the baseline scenario a harvest schedule is implemented with the typical regional practice of clearcut logging and comparable regional practices.

The project scenario will consist of conservation management activities, wherein SC Rotunda SRL (Rotunda) undertakes the carbon offset project and ecosystem protection. The project scenario will anticipate a low level of timber removal as part of conservation management activities for ecosystem/habitat enhancement and risk management. Under this project scenario it is anticipated that an average of 5,661 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) per year and ~169,850 tCO<sub>2</sub>e total over the 30 year project period will be reduced from entering the atmosphere.

## 1.2. Sectoral Scope and Project Type

Sectoral Scope 14

Improved Forest Management (IFM)

Logged to Protected Forest (LtPF)

The Rotunda Forest Carbon Project is not a grouped project.

## 1.3. Project Eligibility

The Rotunda project meets the listed criteria for the VCS Improved Forest Management – Logged to Protected (IFM-LtPF) as defined in the VCS AFOLU Requirements v3.6 as well as the applicability condition as described within the VCS-VM0012:

1. The project meets the most recent approved criteria for VCS IMF-LtPF eligible projects
  - a. The project is protecting currently logged or degraded stands from further harvesting and,
  - b. Is protecting unharvested forests that would otherwise be harvested

2. The project is located in the Temperate Global Ecological Zone (as defined by Food and Agriculture Organization of the United Nations (FAO) (FAO, 2001), are forest lands remaining forest lands (as defined by IPCC (IPCC, 2003)), and which meet IPCC GPG LULUCF Tier III inventory and data requirements (IPCC, 2003).
3. The project meets the most current approved VCS Standard requirements for ownership, by being able to demonstrate Proof of Right of Use ownership of carbon rights in accordance with VCS requirements:
  - a. Rotunda – fee simple ownership of the land, title rights and carbon rights.
4. There are *de minimus* amounts of illegal, unplanned or fuelwood removals from the Rotunda property in the baseline scenario.
5. The project area does not encompass peatland forests as defined by IPCC GPG LULUCF.
6. The project area does not include wetlands.
7. There is no additional planned harvesting on other lands held by Rotunda. Activity shifting leakage will be monitored and reported on annually as required by VCS standards.
8. It is not planned to apply organic or inorganic fertilizer in the project scenario.

## 1.4. Project Design

Not applicable for project listing document.

## 1.5. Project Proponent

Table 1. Project Proponent information

|                            |                                                                         |
|----------------------------|-------------------------------------------------------------------------|
| <b>Organization name</b>   | SC Rotunda SRL                                                          |
| <b>Contact person</b>      | Nikolaus Pongracz                                                       |
| <b>Role in the project</b> | Project Proponent, Listing Representative                               |
| <b>Title</b>               | General Manager                                                         |
| <b>Address</b>             | Bulevardul Timisorarei nr. 10, SPII/A, Miercurea Ciuc Harghita, Romania |
| <b>Telephone</b>           | +43 664 1665014                                                         |
| <b>Email</b>               | nikolaus.pongracz@gmail.com                                             |
| <b>Organization name</b>   | Global Forest Support GmbH                                              |
| <b>Role in the project</b> | Project Proponent, Authorized Representative                            |
| <b>Contact person</b>      | Jason Zimmermann                                                        |
| <b>Title</b>               | Director                                                                |
| <b>Address</b>             | 1010 Vienna, Rudolfsplatz 9/8, Austria                                  |
| <b>Telephone</b>           | +1 604 619 1585                                                         |
| <b>Email</b>               | jason@green-raise.com                                                   |

## 1.6. Other Entities Involved in the Project

Table 2. Other entity information

|                            |                                              |
|----------------------------|----------------------------------------------|
| <b>Organization name</b>   | GreenRaise Consulting GmbH                   |
| <b>Role in the project</b> | Authorized Representative, Project Developer |
| <b>Contact person</b>      | Jason Zimmermann                             |
| <b>Title</b>               | Director                                     |
| <b>Address</b>             | 1010 Vienna, Rudolfsplatz 9/8, Austria       |
| <b>Telephone</b>           | +1 604 619 1585                              |
| <b>Email</b>               | jason@green-raise.com                        |

## 1.7. Ownership

The freehold 1,555.82 hectare Rotunda property was acquired by Rotunda in 2007. The entire Rotunda estate is made up of the following land parcels:

- Carte Funciară Nr. 60826 Râu de Mori – 2.8836 ha
- Carte Funciară Nr. 60827 Râu de Mori – 1194.2661 ha
- Carte Funciară Nr. 60494 Râu de Mori – 11.1166 ha
- Carte Funciară Nr. 60495 Râu de Mori – 37.0337 ha
- Carte Funciară Nr. 61036 Pui – 310.52 ha

Title documentation has been provided and verified by GreenRaise Consulting GmbH (GreenRaise) through the [Romanian] Office of Cadastre and Real Estate Advertising of Hunedoara.

## 1.8. Project Start Date

The project start date is January 1, 2018. As of January 1, 2018, S.C. Rotunda S.R.L. was issued a Forest Management Plan enabling the commencement of legal harvesting within the Rotunda estate. From January 1, 2018 – July 29, 2019 harvesting activities on the project property occurred in a minimal capacity and as of July 30, 2019, harvesting activities were ceased for the purpose of initiating a forest protection program (the Rotunda Forest Carbon Project).

## 1.9. Project Creation Period

The project crediting period is from 01/01/2018 to 12/31/2047 with a total length of 30 years.

## 1.10. Project Scale and Estimated GHG Emission Reductions or Removals

Table 3 Project scale

| Project Scale |   |
|---------------|---|
| Project       | X |
| Large project |   |

Table 4 Estimated GHG Emission reductions of removals.

| Year | Estimated GHG emission reductions or removals (tCO <sub>2</sub> e) |
|------|--------------------------------------------------------------------|
| 2018 | 3,723.37                                                           |
| 2019 | 4,026.26                                                           |
| 2020 | 4,294.16                                                           |
| 2021 | 4,535.77                                                           |
| 2022 | 4,751.06                                                           |
| 2023 | 4,943.74                                                           |
| 2024 | 5,115.81                                                           |
| 2025 | 5,271.48                                                           |
| 2026 | 5,414.48                                                           |
| 2027 | 5,544.49                                                           |
| 2028 | 5,663.18                                                           |
| 2029 | 5,772.96                                                           |
| 2030 | 5,871.93                                                           |
| 2031 | 5,960.08                                                           |
| 2032 | 6,037.19                                                           |
| 2033 | 6,110.83                                                           |
| 2034 | 6,183.78                                                           |
| 2035 | 6,248.71                                                           |
| 2036 | 6,293.29                                                           |
| 2037 | 6,360.06                                                           |

| Year                                   | Estimated GHG emission reductions or removals (tCO <sub>2</sub> e) |
|----------------------------------------|--------------------------------------------------------------------|
| 2038                                   | 6,130.03                                                           |
| 2039                                   | 6,136.18                                                           |
| 2040                                   | 6,144.11                                                           |
| 2041                                   | 6,152.77                                                           |
| 2042                                   | 6,167.71                                                           |
| 2043                                   | 6,180.53                                                           |
| 2044                                   | 6,188.74                                                           |
| 2045                                   | 6,199.46                                                           |
| 2046                                   | 6,211.59                                                           |
| 2047                                   | 6,222.51                                                           |
| <b>Total estimated ERs</b>             | 169,856.3                                                          |
| <b>Total number of crediting years</b> | 30                                                                 |
| <b>Average annual ERs</b>              | 5,661.87                                                           |

### 1.11. Description of the Project Activity

The Rotunda Forest Carbon Project will create GHG emission reductions by avoiding the release of carbon associated with timber harvesting, road building and other forestry operations that would be expected to be carried out in the baseline (business-as-usual) scenario.

In contrast to the baseline scenario, the Rotunda Forest Carbon Project will retain and restore the land to conservation-based forests for the duration of the project. This will retain the carbon contained in the current and future forest biomass and avoid emissions from logging in the baseline scenario.

As a conservation based IFM project, there are no specific technologies, products, or services involved in the implementation of the project. Beyond the creation and sale of verified emissions reductions, the Rotunda Project will be primarily focused on property supervision and monitoring, conservation research and other conservation-based land management activities. A low level of ongoing forest management activity will be expected in the project scenario for conservation management purposes (hygiene cutting and planting where required) which will result in GHG emissions that will need to be accounted for in the carbon flow projections.

The project is not located within a jurisdiction covered by a jurisdictional REDD+ program.

### 1.12. Project Location

The Rotunda property is located in western Romania adjacent to the Retezat Mountains in Hunedoara County (Figure 1). The Rotunda property is a total area of 1,556 hectares comprised of non-contiguous parcels. The property is bounded by Lake Gura Apelor, state owned lands, private lands, public grazing properties and public forest lands. The property has been surveyed.

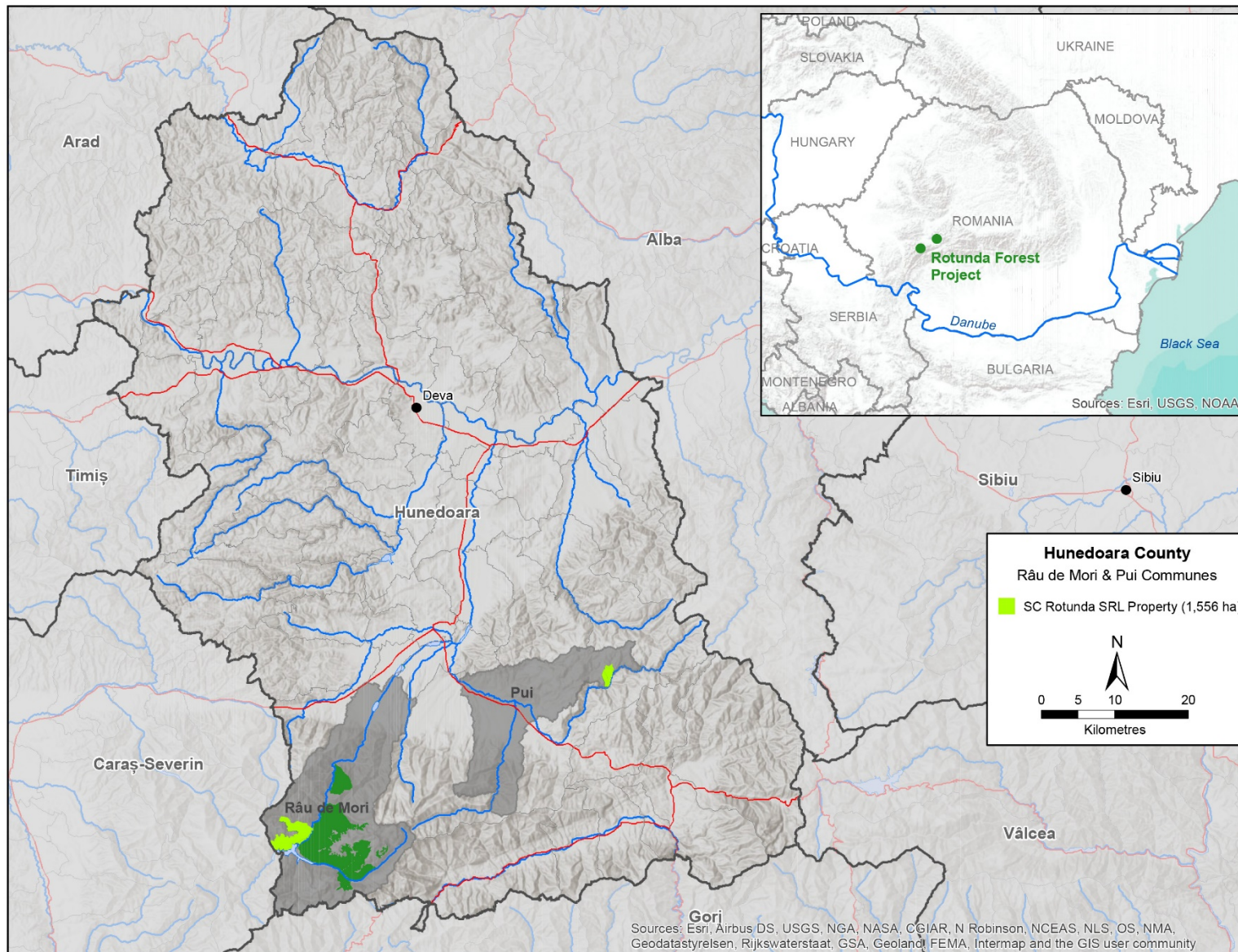


Figure 1 Overview location of SC Rotunda SRL estate (shown in green) and the Rotunda Forest Carbon Project (shown in light green).

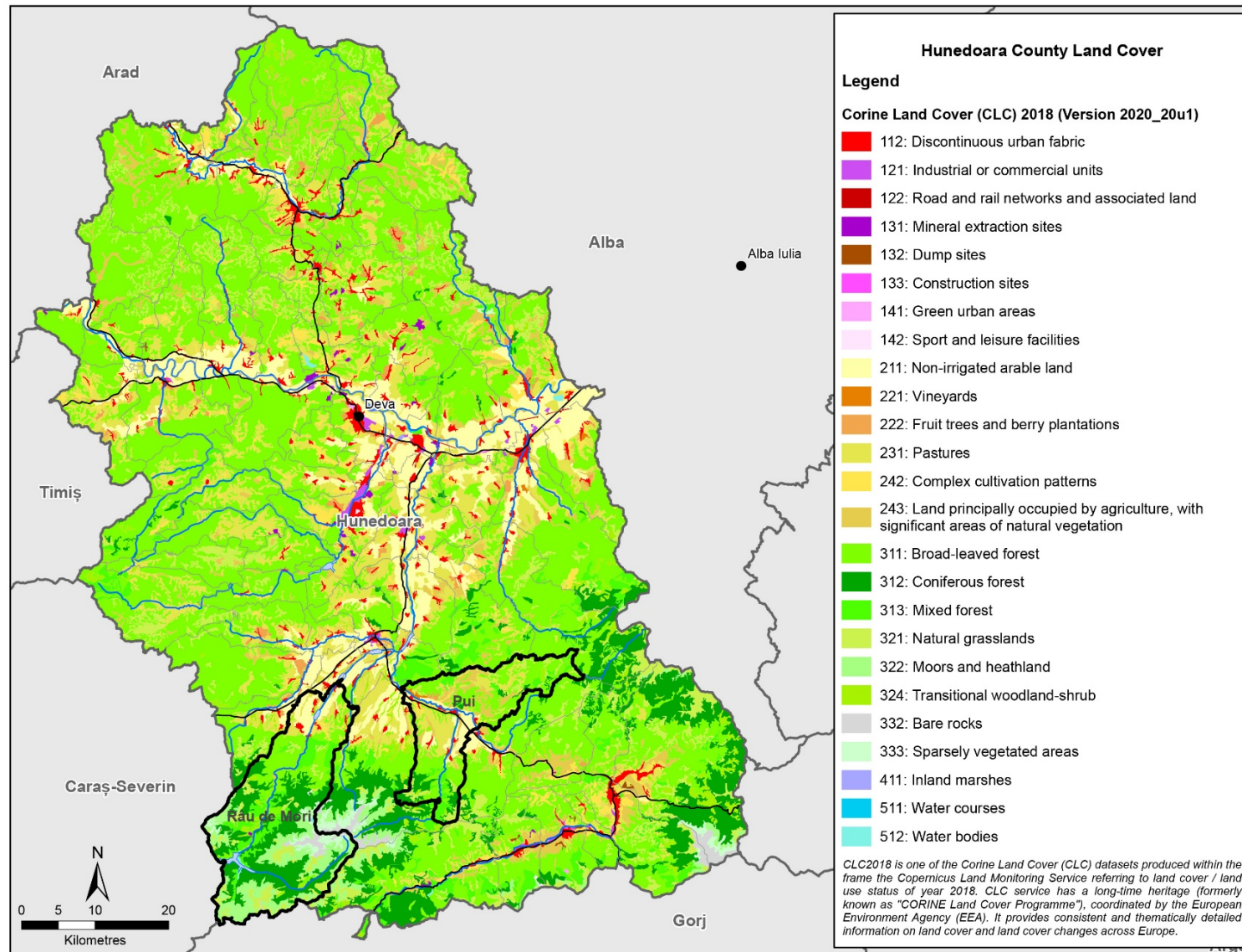


Figure 2 Landcover overview of Hunedoara County (location of Rotunda project).

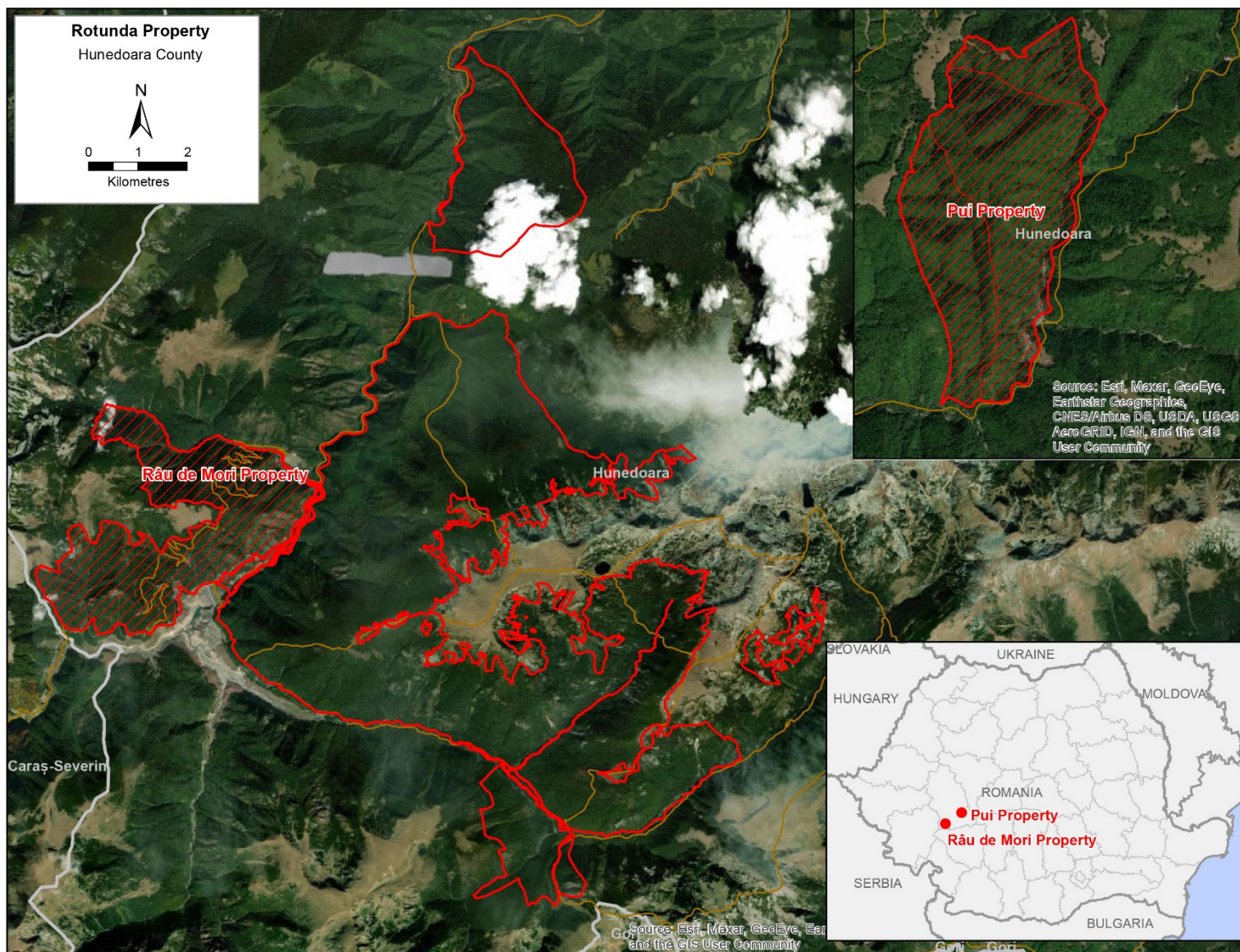


Figure 3 Detailed overview of SC Rotunda SRL Property (project areas shown in red hashed areas).

### 1.13. Conditions Prior to Project Initiation

The Rotunda property has a diverse mix of forest types, topography, age class, and forest conditions well distributed across the land base (Figure 2). Approximately 50% of the property is considered operable for timber harvesting. The property has reasonable access with forestry roads, they provide access to 72% of the forestry fund and 59% of the harvestable property.

The project area is located within the temperate continental FAO ecological zone within Romania. The existing stands are spruce (*Picea abies*) dominant with beech (*Fagus sylvatica*), birch (*Betula pendula*), silver fir (*Abies alba*), and sycamore maple (*Acer pseudoplatanus*).

Prior to the Rotunda Forest Carbon Project, the property has a forest management plan in place that allows harvest on 748 hectares of forest lands. The plan prescribed harvests at intervals of 40-40-30 years for a total rotation of 110 years. The total volume allocated for harvest equates to:

1. 2,310 m<sup>3</sup>/year of primary wood cuttings in small patch cuts,
2. 561 m<sup>3</sup>/year of secondary wood products (thinning)
3. 2,994 m<sup>3</sup>/year of select conservation cuttings, maximum of 10% of standing volume.
4. 581 m<sup>3</sup>/year hygiene cuttings (these will continue to occur throughout the project)

To date, minimal harvesting under the current forest management plan has occurred.

### 1.14. Compliance with Laws, Statutes and Other Regulatory Frameworks

Rotunda obtained the legal right to harvest within Harghita county following the transfer of landownership under Law no. 1/2000 for Kenedeffy owners Maria and Pongracz Elisabeta, according to the Property Titles no. 90878/646 page 1-3 from 06.12.2006, 90538/901 of 06.12.2006 and 90878/647 of 06.12.2006. The transfer of title was completed by the County Commission for establishment of the property right on Hunedoara lands.

Prior to any timber harvesting, the contractor or landowner is required to obtain a harvesting permit from the forest district. The guidelines for timber harvesting are further outlined in the Forest Code and the Ministerial Order 1540/2011 on harvesting rules. Additionally, the following are required to initiate harvesting practices within Romania:

- Harvesting Certificate
- Harvesting Permit
- Volume Estimation Document
- Environmental Permit
- Approval from the National Park Administrator
- Approval from the Natura 2000 Site Custodian

These requirements have been fulfilled and described as part of the SC Rotunda Forest Management Plan development. In Romania, a Forest Management Plan is required for all harvesting areas larger than 10 hectares, as described in the Forest Code. Each forest management plan contains a harvesting plan and a forest tending plan for pre-commercial and commercial thinning. Permits to harvest from forests are issued to the harvesting company, SC Rotunda, based on the timber inventory within the management area and an estimation of the volume within the Volume Estimation Document. SC Rotunda has successfully completed all requirements to obtain a legal harvesting permit via the submission of their Forest Management Plan and are therefore legally permitted to complete forest management practices within the proposed project area.

### 1.15. Participation under Other GHG Programs

Not applicable.

### 1.16. Other Forms of Credit

Not applicable

### 1.17. Additional Information Relevant to the Project

Not applicable for project listing document.

## 2. Safeguards -

Not applicable for project listing document.

## 3. Application Methodology

### 3.1. Title and Reference of Methodology

The methodology selected for the project is VM0012: Improved Forest Management in Temperate and Boreal Forests (LtPF) v1.2. Additional tools to be applied include:

- AFOLU Non-Permanence Risk Tool: VCS Version 3 (Procedural document 19 October 2016, v3.3)
- VT0001 – Tool for Demonstrating and Assessment of Additionality in VCS Agriculture, Forestry, and Other Land Use (AFOLU) Project Activities – Version 3.0, Sectoral scope 14.

### 3.2. Applicability of Methodology

Table 5 Compliance with VCS VM0012 Methodology Criteria

|    | Summarized Methodology Applicability Criteria                                                                              | Rotunda Forest Carbon Project Fit                                                                                                |
|----|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1. | Project meets criteria for IFM-LtPF projects                                                                               | Rotunda meets both criteria                                                                                                      |
| 2. | Project is located in Temperate or Boreal Domain Global Ecological Zones and meet Tier III inventory and data requirements | Rotunda is located in the Temperate Ecological Zone.<br>Rotunda utilizes detailed site level inventory meeting Tier III criteria |
| 3. | Project meets VCS Standard requirements for ownership                                                                      | The Rotunda project can demonstrate Proof of Right and Right of Use.                                                             |
| 4. | Annual illegal, unplanned and fuelwood removals are <5% of total annual harvest levels                                     | Rotunda has no illegal or unplanned harvesting and, de-minimis fuelwood removals                                                 |
| 5. | No managed peatland forests in project                                                                                     | Rotunda does not contain managed peatland forests                                                                                |
| 6. | Total percentage of wetlands in project area not expected to change due to project activities                              | Rotunda will not materially alter the percentage of wetlands on the project area                                                 |
| 7. | No activity shifting leakage to other Rotunda lands at the start of the project                                            | Rotunda must demonstrate baseline activities are not being shifted to other conservation land holdings                           |
| 8. | Project does not include non-de minimis application of fertilizer in the project scenario                                  | Rotunda will not include any application of fertilizer in the project area                                                       |

### 3.3. Project Boundary

The Rotunda Forest Project is bounded by the harvestable forest lands within the entire legal area presented within Section 1.12, within which the project considers the following GHG sources, sinks and reservoirs:

Table 6 Rotunda Forest Carbon Project sources, sinks and reservoirs

| Source   |                                                                                            | Gas             | Included? | Justification/Explanation                                                                                                                                                                                                                                                              |
|----------|--------------------------------------------------------------------------------------------|-----------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | Note: CH <sub>4</sub> and N <sub>2</sub> O excluded from Baseline and Project calculations |                 |           |                                                                                                                                                                                                                                                                                        |
| Baseline | Above Ground Biomass (Live)                                                                | CO <sub>2</sub> | Yes       | Sink – Biomass re-growth after harvest disturbance<br><br>Source – Carbon flows resulting from timber harvest removals and adjacent biomass impacts during operations (shifted to other carbon pools)<br><br>Source – Emissions from mortality and decay in remaining forests.         |
|          | Below Ground Biomass Pool (Live and Dead)                                                  | CO <sub>2</sub> | Yes       | Sink – Biomass re-growth after forest management activities<br><br>Source – Carbon flows resulting from forest management harvesting removals (shifting to other carbon pools)<br><br>Source – Emissions from mortality and decay in remaining forests (shifted to other carbon pools) |
|          | Dead Wood Pool                                                                             | CO <sub>2</sub> | Yes       | Sink – Dead snags, course branches and stems before and after forest management activities<br><br>Source – Decay of deadwood pool                                                                                                                                                      |
|          | Wood Products Pool                                                                         | CO <sub>2</sub> | Yes       | Sink – Carbon in permanent storage in harvested wood products<br><br>Source – Emissions from decaying wood products                                                                                                                                                                    |
| Project  | Above Ground Biomass (Live)                                                                | CO <sub>2</sub> | Yes       | Sink – Biomass accumulation in growing retained forest<br><br>Reservoir – Biomass in un-harvested forest                                                                                                                                                                               |
|          | Below Ground Biomass Pool (Live and Dead)                                                  | CO <sub>2</sub> | Yes       | Reservoir – Biomass retained in forest<br><br>Sink – Biomass accumulation in avoided harvest                                                                                                                                                                                           |
|          | Dead Wood Pool                                                                             | CO <sub>2</sub> | Yes       | Sink – Dead snags, course branches and stems<br><br>Source – Decay of deadwood pool                                                                                                                                                                                                    |

| Source                                                   |                                                   | Gas             | Included? | Justification/Explanation                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------|---------------------------------------------------|-----------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                          | Wood Products Pool                                | CO <sub>2</sub> | Yes       | Sink – Carbon in permanent storage in harvested wood products<br>Source – Decay of harvested wood products                                                                                                                                                                                                                                                                                     |
| Sources Excluded from the Baseline and Project scenarios |                                                   |                 |           |                                                                                                                                                                                                                                                                                                                                                                                                |
| Excluded                                                 | Above-ground Non-Tree Biomass (Live)              | CO <sub>2</sub> | No        | Sources and sinks are <i>de minimus</i>                                                                                                                                                                                                                                                                                                                                                        |
|                                                          | Litter Pool                                       | CO <sub>2</sub> | No        | Litter is a short-lived transition pool, and differences between the project and baseline are <i>de minimus</i> over time.                                                                                                                                                                                                                                                                     |
|                                                          | Soil Carbon Pool                                  | CO <sub>2</sub> | No        | Soil carbon is a reservoir of long-lived carbon storage which is likely unaffected by timber harvesting                                                                                                                                                                                                                                                                                        |
|                                                          | Combustion of Fossil Fuels by Vehicles/ Equipment | CO <sub>2</sub> | No        | Carbon emissions from harvesting equipment, log transport, and primary forest product manufacturing are listed as being an optional inclusion within VM0012 and therefore are being excluded due to the project scenario consisting of conservation with harvesting occurring only to maintain the health of the stand. Therefore any emissions due to vehicle/ equipment use will be minimal. |

### 3.4. Baseline Scenarios

#### STEP 1 – Identify Plausible Alternative Baseline Scenarios to the VCS Activity

The Rotunda Carbon Project has identified four potential baseline scenarios that were evaluated in the baseline selection process. Italicized text indicates methodology or VCS requirements in baseline scenario selection.

##### 1. Historical Practice

The VCS standard and VM0012 require the consideration of historical practice as a baseline scenario in step 2a. It is noted in the forest management plan that historic data is uncertain. The current management plan provides information back to 2008 as the property was acquired in 2007. Between 2008 and 2017 it is estimated that the total commercial and pre-commercial harvest combined was 73,007 m<sup>3</sup> for an annual average of 7,300.7 m<sup>3</sup>. The current management plan described below in Step 2a details the current allowable annual cut for the property.

##### 2. Common Practices

Maximizing the allowable harvest within the current forest management plan is the common practice scenario. In Romania forest management plans are required by law to be completed every 10 years. The common practice would be to harvest the allowable annual cut (AAC) detailed in the management plan.

### 3. Acquisition for conversion to real estate development lands

A potential baseline scenario is that an entity would acquire the lands (or the current owner would implement this directly), with the intent of financial return on investment from the development and sale of rural residential and vacation properties. Due to geography, it is clear that extensive development across all land parcels is unlikely, so this scenario would focus on maximizing real estate opportunities within the highest and best use areas. These areas would include shorelines along lakes and streams and would most likely be supplemented with timber harvesting.

### 4. Acquisition for conversion to conservation lands

The last potential baseline scenario is the acquisition of the forest for conservation purposes. This scenario is representative of, or comparable to, the project scenario without carbon. There is no credible market-based business model for this baseline scenario to provide financial returns for private investment capital, as there are no material revenue returns from conservation activities similar to the project scenario. The inclusion of this scenario also meets element 2.1.1 a), item ii) in the VCS Additionality Tool VT0001.

The areas in italics in the following are the baseline selection criteria outlined in the methodology.

Each prospective baseline scenario meets the following baseline selection scenario eligibility criteria, except where noted and excluded:

1. *Including activities and areas where forests remaining as forests* – this criterion eliminated the potential Baseline Scenario 3 “Acquisition for conversion to real estate development lands”.
2. *Comply with legal requirements for forest management and land use in the area* – all remaining baseline scenarios would meet the minimum practice requirements of either Romanian Forest Act or general rural residential laws and requirements.
3. *Demonstrate that the “projected baseline scenario environmental practices equal or exceed those commonly considered a minimum standard among landowners in the area” (Voluntary Carbon Standard, 2008a)* – all the prospective baseline scenarios could have complied with minimum environmental performance of landowners in the area.

## Step 2 – Selection of a Single Plausible Baseline Scenario for the Project

Project proponents shall select a single plausible baseline scenario for the project using the following steps:

### Step 2a – The Historical Baseline Scenario – based on historical operating practices on the property:

2a.1 The project proponent has at least 5 years historical harvest level data history.

Rotunda has a forest management plan in place that commenced January 1, 2018 and is valid for ten years. As stated in the VM0012 methodology, “projects may use a forward-looking forest management plan as the historical baseline data”. The AAC is set within the forest management plan. The area available for harvesting operations is 748 ha with an AAC of 6,446 m<sup>3</sup>.

Table 7. Breakdown of AAC by harvest type

| Volume (m <sup>3</sup> ) | Type                                                 |
|--------------------------|------------------------------------------------------|
| 2,310                    | Primary – small patches                              |
| 2,994                    | Conservation Cutting – max 10% of stand volume       |
| 561                      | Secondary Cutting – thinning                         |
| 662                      | Hygiene Cutting – removing non-vigorous, broken etc. |

As stated in the forest management plan, this is the first plan completed to current standards making it difficult to accurately portray historic events. Over the prior ten-year period (2008-2017) it is estimated that the total commercial and pre-commercial harvest combined was 73,007 m<sup>3</sup> for an annual average of 7,300.7 m<sup>3</sup>. Since the historic harvest levels are relatively uncertain, the project will utilize the conservative approach of using the AAC from the forward-looking forest management plan for the historical baseline data.

The baseline scenario based on actual property harvest history has been selected because the project proponent has at least 5 years historical harvest level data history. Step 2b and 2c will be omitted due to the acceptance of the historical baseline scenario in Step 2a.

### Step 3 – Additionality Test

The project is additional as per Section 3.5 in a manner consistent with the baseline selection method.

## 3.5. Additionality

The project uses the Tool for the Demonstration and Assessment of Additionality in VCS Agriculture, Forestry and Other Land Use (AFOLU) Project Activities:

This Rotunda project meets the eligibility requirements of this tool by:

1. The project activities are not in violation of any applicable law;
2. The project employs a stepwise method to determine the most plausible baseline scenario, which is consistent with the application of this tool.

### Step 1a – Identification of plausible baseline scenarios

1. Historical Practice (selected baseline scenario)
2. Common Practice
3. Acquisition for conversion to real estate development lands
4. Acquisition for conversion to conservation lands

### Step 1b – Legal tests

All plausible baseline scenarios could be undertaken within the legal requirements of private forestland or private rural residential land in Romania.

### Step 1c – Selection of Most Plausible Baseline Scenario

See Section 2.4 for description of the baseline selection process.

The outcome of the selection process is to select the “Historical Practice” using the forward-looking forest management plan.

## Step 2 – Investment Analysis

In general, the project scenario is less financially attractive than the alternative baseline scenarios. As a Logged to Protected Forest conservation project, the project scenario for the Rotunda project generates no material financial or economic benefits other than VCS related income, and therefore is suitable for Option 1 – Simple Cost Analysis

### Investment Analysis – Option 1 Simple Cost Analysis

The operating costs of the Rotunda carbon project specific to the carbon project itself are projected to be approximately 140,000 Euros<sup>1</sup> in the first year (including verification, issuance and registration, project management) and an estimated 25,000 Euros/ year (including monitoring, and sales costs; not including capital costs, management overhead costs, road costs, conservation activities costs, or taxes).

Rotunda will also undertake additional property and conservation management activities (road maintenance, biodiversity research, inventory, access management, etc.) that require substantially greater cost than projected here. The majority of these costs (which is difficult to isolate) would be attributed to property management costs of the carbon project related to the carbon project implementation, regardless of other biodiversity and conservation objectives underlying Rotunda's management activities in the project scenario. In other words, any entity acquiring the land strictly for the purpose of carbon offsets with no other interests would face these costs as well. Rotunda's carbon budget will be summarized at the time of validation within the PDD.

Rotunda has alternate sources of revenue (i.e., real estate, compensation for protected lands, pastures) that would be intended to offset any additional costs incurred by the implementation of the carbon project.

Additionally, the project scenario does include a low level of timber harvest as part of conservation management and community engagement that does generate revenue from timber sales. However, the low level of harvest and high cost of expected conservation harvesting is expected to be operationally break-even at best. The operational revenue and costs are not detailed further here because it is obvious once capital costs and other property management costs are included that it is impossible for these timber harvests to cover overall costs. However, actual details of current and projected project activity revenue and costs are available upon request.

To summarize, the Rotunda carbon project and only material commercial revenue and profit opportunity within the carbon project is from the sale of VCU's. Option 2 and Option 3 are not considered further because there is no reasonable alternative business model for a private entity to maintain this land for the purposes which achieve similar emissions reductions, given the high acquisition cost and lack of revenue options from conservation activities without carbon. Carbon finance provides the only reasonable revenue opportunity to cover project costs, property management costs, and capital costs in the project scenario.

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<sup>1</sup> Additional details of cost modeling available upon request.

### Step 3. Barrier Analysis (supporting information only)

In addition to the Investment Analysis above, there is a clearly related applicable barrier, described below:

#### Step 3a – Identify barriers that would prevent the implementation of the type of proposed project activity

There are barriers for AFOLU project activities undertaken and operated by private entities:

Similar conservation activities have only been implemented with grants or other non-commercial finance terms. In this context similar activities are defined as activities of a similar scale that take place in a comparable environment with respect to regulatory framework and are undertaken in the relevant geographical area. The project activity will be the “first of its kind”. No similar project activities are currently operational in Eastern Europe with Verified Carbon Standard, The Gold Standard or the Clean Development Mechanism.

#### Step 3b – Show that the identified barriers would not prevent the implementation of at least one of the alternative land use scenarios (except the proposed project activity).

The other scenarios relating to historic practice and common practice are not affected by the above barrier. Income would come from the harvesting of forests that are slated for conservation in the project scenario. The real-estate development scenario would also not be affected by the above listed barrier. In all scenarios, except the project scenario, financial benefits would be received from the sale of land or fiber from the land. The project scenario is unlikely to produce economic benefits or be financially attractive without financial benefits from the VCS AFOLU project.

### Step 4. Common Practice Analysis

Rotunda is the first IFM-LTPF carbon project proposed in Romania and the only forest carbon project considered in Romania to date. Conservation projects in Romania have been completed in the past with private and public money. An example of this is Foundation Conservation Carpathia, founded in 2009 by philanthropists and conservationists to protect privatized forest lands in the Făgăraș Mountains. Some maintenance costs of Carpathia are offset by leasing hunting rights and donations with the goal to return the landholdings to the public domain for permanent protection as a national park.

There are no comparable projects that could be considered common practice, and which achieve similar scale or employ similar project activities. Similar acquisitions are only achieved with non-commercial funding and capital sources.

Based on the application of this VCS tool, the Rotunda Forest Carbon Project is clearly additional based on Investment Analysis.

## 4. Quantification of GHG Emission Reductions and Removals

Not applicable for project listing document.

## 5. Monitoring

Not applicable for project listing document.