Key Performance Indicators (Affecting the Performance Function)

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| --- | --- | --- | --- |
| Indicator | Way of Measurement | Validation | Performance Indicator |
| Number of Bison in SW of Carpathian Mountains | Manual Counting of Bison’s | 2nd or 3rd individual counting after a certain amount of time | Progression of number |
| Number of Wolves in SW part of Carpathian Mountains | Manual Counting of Wolfs/ counting of tracks | 2nd or 3rd individual doing a recount | Progression of number |
| Development of Forested Area | Satellite Imaging | Interval Comparison of Satellite Images of Forested Area | Net Gain/Loss |
| Presence of Bird X | Acoustic Measurement in specified location | GPS monitoring, validation of presence of bird | Binary, breadth of habitat |
| Presence of Amphibian Y | Acoustic Measurement in Specified Location | GPS monitoring, validation of presence of amphibian | Binary, breadth of habitat |
| Temperature and Humidity Samples of Soil | Take specified measurements around different locations | GPS tracking, validation through community | Progression |
| Water Pollution | Take water measurements in specified Rivers | GPS Tracking, Community Validation | Progression |

Example set of Task list & Rewards

|  |  |  |  |
| --- | --- | --- | --- |
| Task Name | Description | Validation Method | Reward |
| Presence of Bird X | Collect 1h acoustic sample at specified location to determine presence of bird X | GPS tracking, community voting | 5 EurTok  3 RepTok |
| Presence of Amphibian Y | Collect 1h acoustic sample at specified location to determine presence of Amphibian Y | GPS Tracking, community Voting | 5 EurTok  3 RepTok |
| Number of Bison’s | Locate, identify and count number of Bison in different herds in specified area | Community Validation | 5 EurTok  3 RepTok |
| Number of Wolves | Locate and count Wolf tracks in a specified area | Community Validation | 5 EurTok  3 RepTok |
| Soil Samples | Collect Soil samples at certain locations | Community Validation | 5 EurTok  3 RepTok |
| Photo-evidence Wolves | Maintain Camera Trap (collect SD card, switch batteries) | Community Validation | 5 EurTok  3 RepTok |
| Sensor Maintenance | Exchange batteries for Acoustic/Air Sensors | Community Validation | 5 EurTok  3 RepTok |

Description Slide 3:

1. Stakeholders donate money to WWF and receive **Decision Tokens** in return
2. Investors allocate **the Decision Tokens** to their desired performance indicator. These votes will then be used as a weighting mechanism for final pay-out of the allocated donations.
3. The overall state of the ecosystem is measured through performance indicators such as the number of bison or the level of deforestation.
4. Using sensor data, the ‘health’ of the performance indicators is evaluated against a predefined baseline. This is shown in red on the performance dial.
5. The performance function inside the smart contract uses the ‘health’ of the indicator, the number of tasks completed by the community, and the weighting assigned by the stakeholders.
6. The result is the weighted contribution to the final state of the indicators. This is shown in yellow on the performance dial.
7. This weighted performance determines the pay-out though the smart contract shown on the overview slide.

1. Stakeholders donate money to WWF and receive a Decision Token in return
2. WWF splits the money into two pots. One is used to cover the expenses of WWF’s activities including bison transportation, set-up of sensors, etc. The remaining money is combined into a community pot on Blockchain
3. The overall state of the ecosystem is measured through performance indicators such as the number of bison or the level of deforestation.
4. The Stakeholders distribute their tokens to the projects that interest them the most, creating a weighting for the key performance indicators
5. Community members can register for a given task and complete it. Once the task is completed, there are two ways to verify it. Some tasks are sensor related, others required community validation. Tasks that allow automatic verification, such as through GPS data, get verified automatically
6. Alternatively, the community votes on the task completion to verify it
7. Through the completion of the task, the community member receives a Voting Token and a Finance Token. The Finance Token is a cash alternative that is redeemed with WWF directly.
8. The voting token is used by the community member to cast their vote towards a community project they would like to have realized (Tokens can only be used once)
9. At regular intervals, sensor and task information are used to determine the health of the state of the environment through a smart contract. The details are explained on the next slide.
10. The determination of the state then triggers the Smart Contract that releases the funds to the most voted community project

Performance Function

* Inputs
  + Key Performance Indicators
    - Subjective Voting of Performance of System
  + Indicator Performance Evaluation
    - Use sensor and task data to track progress of indicators
      * I.e. if the community is doing well, the forested area increases, the performance indicator improves
  + Number of Completed Tasks
* Output
  + Number between 0-100%; the amount of the pot that will be paid out to complete community projects