**Carbon Benefits Project - Detailed Assessment**

**Grassland Questionnaire**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Date: |  | | | | | |
| Name of Project Activity Area: |  | | | | | |
| Scenario | Initial Land Use |  | Baseline Scenario |  | Project Scenario |  |
| Year you are describing: |  | | | | | |
| Name of interviewer: |  | | | | | |
| Name of interviewee: |  | | | | | |
| Sample number: |  | | | | | |

1. Approximately how large is the grassland area in ha? (if areas of the grassland are managed differently fill out a separate questionnaire for each area)

2. What are the GPS coordinates of the central point if available.

3. Is the grassland communally grazed or grazed just by your animals?

4. Which best describes the grassland system (grassland system name) (tick one)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Continuous pasture |  | Silvopasture |  | Rangeland |  | Continuous hayland |  |

5. Which best describes the condition of the grassland (tick one)?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Nominally degraded or native grassland |  | 2. Moderately degraded |  | 3. Severely degraded |  | 4. Improved |  |
| Non-degraded or sustainably managed grassland but without significant management improvements. | | Overgrazed or moderately degraded grassland, with somewhat reduced productivity (relative to the native or nominally managed grassland) and receiving no management inputs. | | Major long-term loss of productivity and vegetation cover, due to severe mechanical damage to the vegetation and/or severe soil erosion. | | Has a higher productivity than native grassland as a result of irrigation, liming, manure or compost applications. | |

6. Is Nitrogen fertiliser added to the grassland?

Yes ........... No............. (if 'No' go to question 9)

7. How much Nitrogen fertiliser is added in kg/ha each year?

8. What is the percentage of nitrogen in the fertiliser? (this is sometimes written on the bag, if you use more than one application per please state the amount and % for each one)

\*note to interviewer you will have to calculate the total % before putting this data into the system.

9. Does the grassland have any of the following improvements? (tick the relevant ones)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Organic fertiliser (manure) | Improved varieties | Irrigation | Liming | Legumes |
|  |  |  |  |  |

10. How frequently is the grassland burned (tick one)?

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Once or more than once per year | Once every two years | Once every three years | Once every four years | Once every five years | Once every six years | Once every seven years | Once every eight years | Once every nine years | Once every ten years | Never |
|  |  |  |  |  |  |  |  |  |  |  |

ONLY ANSWER QUESTIONS 11 - 16 IF YOU INDICATED IN QUESTION 4 THAT SILVOSPASTURE IS PRESENT. QUESTIONS 11 - 16 REFER ONLY TO THE TREES PRESENT IN THE GRASSLAND.

11. What type of trees are present in the grassland (see the reference list of species, if your tree is not on the list write the name)

12. On average are most of the trees in the grassland

less than or equal to 20 years old?

older than 20 years old?

13. For the trees in the grassland, how much of the woody biomass (not the leaves) is lost each year from the following

|  |  |  |  |
| --- | --- | --- | --- |
| Fire (%/yr) | Wind (%/yr) | Pest/Disease (%/yr) | Other (%/yr) |
|  |  |  |  |

14. From all of the trees in the grassland how much wood is removed each year for the following purposes:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Timber harvesting | Fuelwood gathering | Pruning | Other |
| 1. Number of bundles per year |  |  |  |  |
| 2. Approx volume of 1 bundle in m3 |  |  |  |  |
| 3. Volume removed m3/yr |  |  |  |  |

Note to interviewer - to obtain number 2, a team member should have previously measured the volume of all the sticks in a sample bundle and estimated the volume of the entire bundle.

15. If there is any deforestation (complete removal of all trees from an area of grassland) say how many ha this occurs on each year (ha/yr) ?

16. Is there any afforestation/reforestation (establishment of new trees) on the grassland area if so on how many ha/yr?

THANK-YOU VERY MUCH FOR YOUR TIME ALL ANSWERS WILL BE TREATED IN CONFIDENCE AND THE INFORMATION WILL ONLY BE USED FOR THIS STUDY.

**Reference list of tree species:**

|  |
| --- |
| Acacia albida |
| Acacia auriculiformis |
| Acacia mearnsii |
| Acacia mellifera |
| Acacia nilotica |
| Acacia senegal |
| Acacia seyal |
| Acacia spp. |
| Acacia tortilis |
| Ailanthus excelsa |
| Ailanthus spp. |
| Araucaria angustifolia |
| Araucaria cunninghamii |
| Balanites aegyptiaca |
| Bamboo bamboo |
| Boreal coniferous forest |
| Boreal mountain systems |
| Boreal tundra woodland |
| Casuarina equisetifolia |
| Casuarina junghuhniana |
| Cordia alliadora |
| Cupressus lusitanica |
| Cupressus spp. |
| Dalbergia sissoo |
| Eucalyptus camaldulensis |
| Eucalyptus deglupta |
| Eucalyptus globulus |
| Eucalyptus grandis |
| Eucalyptus robusta |
| Eucalyptus saligna |
| eucalyptus spp. |
| Eucalyptus urophylla |
| fir spp. |
| Gmelina arborea |
| Hevea brasiliensis |
| Khaya spp. |
| larch spp. |
| Leucaena leucocephala |
| Mimosa scabrella |
| pine spp. |
| Pinus caribaea v. caribaea |
| Pinus caribaea v. hondurensis |
| Pinus oocarpa |
| Pinus patula |
| Pinus radiata |
| Pinus spp. |
| Polar |
| Populus spp. |
| Sclerocarya birrea |
| spruce spp. |
| Subtropical desert |
| Subtropical dry forest |
| Subtropical humid forest |
| Subtropical mountain system |
| Subtropical steppe |
| Swietenia macrophylla |
| Tectona grandis |
| tectona spp. |
| Temperate continental forest |
| Temperate desert |
| Temperate mountain system |
| Temperate oceanic forest |
| Temperated steppe |
| Terminalia ivorensis |
| Terminalia superba |
| Tropical desert |
| Tropical dry forest |
| Tropical moist deciduous forest |
| Tropical mountain system |
| Tropical rain forest |
| Tropical shrubland |
| Xylia xylocapa |
| Ziziphus mauritiana |