

Disturbance Questionnaire

Optionally, you can use Kobotoolbox to collect this data: <https://ee.kobotoolbox.org/x/HMyFegmI>

Instructions

If you are setting up a new plot...

Read through the questions in the left-hand column and respond either true or false by marking in the appropriate column. If you do not know the answer leave it blank.

If you answer a question as true, then move to the right-hand column and answer any additional questions.

If you are resampling a plot...

Read through the questions and determine if there has been any change in the plots since the last census related to the questions. If there has been no change, make a mark in the “No Change” column. If there has been a change, mark either true or false. If true, please answer the associated questions in the right-hand column.

Plot Information

Site:

Plot name:

PI:

Data recorder:

Date:

<i>Past Land Use</i>	<i>True</i>	<i>False</i>	<i>No Change</i>	<i>If true...</i>
Manipulation experiment? Is any aspect of the plot's land use or environmental conditions manipulated by scientists?				Describe the manipulation: When did the manipulation start? End? Was the manipulation successful? Yes No
Protected Area Is the plot within a protected area?				Name: Type: WDPA code:
Private Lands Has the land been privately owned and managed?				Briefly describe how the private land is used.
Local community rights Do local communities have rights to harvest?				What is the local community allowed to harvest (non-commercial use)? Trees NTFP Both
Other usufruct rights Do other people (i.e. outsiders) have rights to harvest?				What do other people (i.e. outsiders) have rights to harvest? Trees NTFP Both
Timber harvesting Are there trees being harvested for timber - i.e. for making industrial wood products (not including poles)?				What is the intensity of harvesting? High (>50% removed) Low (<50% removed)
Fuel wood harvesting Is there evidence of fuel wood collection (excludes charcoal production)?				What is the intensity of harvesting? High (>50% removed) Low (<50% removed) What type of collection occurs? Debris collection Tree removal Both
Charcoal harvesting Evidence of charcoal makers harvesting trees in the plot?				What is the intensity of harvesting? High (>50% removed) Low (<50% removed)
Other woody product harvesting Other evidence of people harvesting woody material or felling trees for e.g. string, beehives, poles for building				What is the intensity of harvesting? High (>50% removed) Low (<50% removed)
NTFP harvesting Is there evidence of people harvesting non-timber forest products, e.g. mushrooms, honey, fruit, etc?				Notes on main products and intensity of harvesting:
Used for crops in last 30 years? Is it likely that the plot was used for farming crops in the last 30 years?				What kind of farming? (Circle all that apply) Shifting cultivation (slash and burn) Subsistence / Commercial / Large-scale Mechanized / Manual
Used for livestock in last 30 years?				What kind of livestock? (Circle all that apply) Nomadic herding Livestock ranching

Is it likely that the plot was used for livestock in the last 30 years?				
High-graded in last 100 years. Is it likely that high quality timber trees were removed from the plot in the last 100 years?				
Clear-cutting? Has any part of the plot ever been clear cut?				<i>In what year was it clear-cut?</i> <i>Why was it cleared? (Circle all that apply)</i> Fire Agriculture Timber harvesting Infrastructure
Mining Has there been any mining on the plot in the past?				<i>What kind of mining? Place Surface In situ Underground</i> <i>What was mined?</i>
Land Use Confidence How confident are you in your knowledge of land use on the plot? (Circle) Not confident Somewhat confident Confident Very Confident				
Land Use Comments 				

Fire	True	False	No Change	If true...
Fire Interval Do fires ever impact this plot?				How frequently do fires occur? Every _____ years Are signs of fire visible on the plot? Yes No When was the last fire? What was the height of the fire? (Circle all that apply) Canopy Understory Ground/Litter What commonly causes fires at this plot? (Circle all that apply) Management Accidental Lightning Unknown
Fire Management Is there any attempt to alter the fire regime of the plot?				What kinds of fire management activities are used? Early burning Other deliberate burning Fire Breaks Other suppression In what season(s) do the management activities take place?
Fire Exclusion Has fire ever been excluded from the plot?				When did fire exclusion begin? When did fire exclusion end? (NA if on-going) Is the fire exclusion successful?
Fire Confidence How confident are you in your knowledge of fires on the plot? Not confident Somewhat confident Confident Very Confident				
Fire Comments				

Natural Disasters	True	False	No Change	If true...
Tropical Cyclones Do tropical cyclones ever impact this plot?				When was the last major event-- categories 3, 4, or 5?
Drought Do major droughts ever impact this plot?				When was the last major event-- >20% reduction in rainfall during the dry season compared to the average?
Frost Do severe frost events ever impact this plot?				When was the last major event-- $\leq -2^{\circ}\text{C}$ for three consecutive nights?
Wind Events Do severe wind storms or tornados ever impact this plot?				When was the last major event? Wind speed greater than 80 km/hour
Earthquake Do earthquakes ever impact this plot?				When was the last major event-- ≥ 7 on the Richter scale?
Landslides Do landslides or mudslides ever impact this plot?				When was the last major event--displaced more than 2cm of topsoil?
Flooding Do major floods ever impact this plot?				When was the last major event-- >1 meter of water?
Natural Disaster Confidence How confident are you in your knowledge of natural disasters on the plot? Not confident Somewhat confident Confident Very Confident				
Natural Disaster Comments 				

Herbivores	True	False	No Change	If true...
Wild Herbivores Do medium or large (>20 kg) mammalian herbivores exist on this plot?				<i>At what density do wild herbivores occur on the site per 100 km²?</i> Low (<50) Moderate (50-150) High (>150) Unsure
Elephants Do elephants ever visit this plot?				<i>At what density do elephants occur on the site per 100 km²?</i> Low (<50) Moderate (50-150) High (>150) Unsure
Cattle Do domestic cattle feed on the plot?				<i>At what density do cattle occur on the site per 100 km²?</i> Low (<50) Moderate (50-150) High (>150) Unsure
Goats Do goats feed in the plot?				<i>At what density do goats occur on the site per 100 km²?</i> Low (<50) Moderate (50-150) High (>150) Unsure
Sheep Do goats feed in the plot?				<i>At what density do sheep occur on the site per 100 km²?</i> Low (<50) Moderate (50-150) High (>150) Unsure
Herbivore Exlosures Are herbivores excluded from the plot by a fence?				<i>What size herbivores are excluded? (Circle all that apply)</i> Extra-large (>1000kg) Large (100-1000kg) Medium (30-100kg) Small (<30kg)
Herbivore Confidence How confident are you in your knowledge of herbivores on the plot? Not confident Somewhat confident Confident Very Confident				
Source of Herbivore Data <i>(Who? How reliable?)</i>				
Herbivore Comments				