

Venturer Tasks and Objectives / Briefing

The survey will consist of collecting three main types of information:

- empirical scientific data through precise measurements of specific areas of grassland used as pasture;
- socio-economic organisation;
- a body of knowledge concerning local herders' attitudes to the pastures and their perception of changes to these pastures over recent years.

Introduction

Buryatia is in the process of privatisation. This will make the socio-economic aspect of the research complex (though extremely interesting). The former state farms (*sovkhos*) and collective farms (*kolkhoz*) have been divided up into smaller units ("village-based enterprises") and at the same time some former workers have become private "farmers". Private farmers have the entire financial responsibility for their own operations.

We need to find out how privatisation is affecting the use of pastures. Is it creating more pressure on pastures? Or is it enabling a more rational use of them?

All information you gather should note: place, date, name of respondent, profession or job of respondent, approximate age of respondent, name of questioner. If possible, please also make tape-recordings of the replies in Russian and return them to the Cambridge base. If anything else comes up which is of interest, e.g. the respondent tells a story or myth about some landmark, please also return this information to the Cambridge base. We are particularly interested in religious sites.

Notes on Photography

Please photograph : central village; each private farmer's house or houses; livestock sheds and pens; grassland at all selected sites (cuttings and transects); all types of livestock; any environmental damage or soil erosion; crops; forestry; religious shrines and sacred trees etc.... N.B.: for the photographs of grassland, please take one vertical photograph of the grass, showing distribution and including an approximate measure (e.g. a shoe); and one photograph at least of the landscape. *Please note the exact location (with GPS), date and time of day for all photographs; for landscape shots also include the direction (N,S,E,W,NE,NW,SE,SW).*

Preliminary Tasks

Choosing the Sites : Find 2 herding regions of Barguzin at maximum distance from each other, and carry out the following survey in each one. The approximate location and minimum size of the regions should be decided in advance with Bair Gomboev and his colleagues at the Baikal Institute. A breakdown of pasture types should be decided at this point in discussion with Bair Gomboev and his colleagues.

The survey will be carried out at two levels : at the village enterprise level and at the level of the private farmer. Please note that the private farmers may well be living in the village where there is a "collective" enterprise but they will be economically separate. Therefore, we need to investigate ecological conditions in both types of farm. **Please note:** do not *under any circumstances* disclose a respondent's information to another respondent - keep all data confidential.

On Arrival at the Village

1. General Information

1.1 Establish what are the present active economic units which have replaced the former collective farm / state farm.

| Former | Present |
|--------------------|---------------------|
| collective farm | ? |
| | |
| brigades | ? |
| | |
| production teams | ? |
| | |
| individual workers | 'worker' / 'farmer' |

1.2 Find out how many of each category there are (with dates when they started).

1.3 If some of the larger units are based on villages, find out something of the history of these villages over the past 70 years (for example, were they small collective farms in the past?).

1.4 find out from (a) the local village-level administrator and (b) local private herders the number of distinct pasture types that they recognise in their area, and the local names for them.

1.5 find out from (a) the local village-level administrator and (b) local private herders why local herders choose particular species of animals for each pasture type. Is this for biological, economic or administrative reasons? Please note any other factors.

2. Village-sized units

2.1 Select a village-sized unit. Obtain or make a sketch-map^o of its territory

2.2 Find out how pasture-land, arable land (fodder and grain fields), hay-fields and vegetable plots are allocated today among the groups and workers in the village.

2.3 Find out if any usable land in the territory is ignored or underused.

Approximately what area is this land? Find out why this land is not being used (too distant, inaccessible, etc...).

2.4 Ask if any land in the territory is overused. Approximately what area is this land? Find out why this land is considered overused.

2.5 Ask if any land has been abandoned (i.e. formerly useful, now not). Why has this land been abandoned? What area is it? Are any measures planned to recover it?

2.6 Are there any kinds of pasture generally in short supply in the region?

2.7 Are there disputes between villages about access to land? How are such disputes resolved? (Get concrete examples if possible).

3. Private farmers

3.1 Select **three** private farmers for study. Find out how many people are in each farming unit and how they are related to one another (if relatives, find out exact relationships).

3.2 Make detailed maps of the land allocated to three private farmers. Note on the map the types of pasture and their seasonal use. Mark hay-fields and vegetable plots if present.

3.3 Find out how land was selected for allocation to private farmers. Did they themselves have any say in the land allocated?

3.4 Ask each unit: do you think that your land is high quality? Do you have any ancestral connections with this land?

3.5 Ask each unit: how do you plan to use your land through the year? Find out about summer/autumn/winter/spring grazing places. ask if the land is sufficient or (a) present livestock levels, (b) expanded livestock levels.

3.6 List livestock and machinery owned by each of the three private farming units.

3.7 Find out which people in the private farming unit do which herding tasks, noting the times of the year.

3.8 Enquire whether the private farming units co-operate with one another on particular tasks, e.g. one man herds the sheep for 2-3 farmers for one month. If there are such arrangements, find out how they are organised.

3.9 Find out if private farmers are planning to make use of land underused or abandoned by the collectives.

The above questions should provide background information for the selection of sites for biomass measurements.

General Information / Guidelines on Mapping

If printed maps are not available, sketch-maps of the two regions should be made, showing the boundaries of the economic institutions in each one (state farm, collective farm, new village-level enterprises, etc...). We will also need maps of the village-level enterprises you use to study. Finally, we shall need sketch-maps of each private farm. It should quickly become apparent that you will need to map these - as well as the locations of the different pasture types specified for Grassland Transects (see below) - before you are able to carry out any pasture measurements.

Ideally, copies of accurate, small-scale maps should be obtained from the administrator of the village-sized enterprise and used instead of hand-drawn sketch maps. **Please note** : the GPS equipment should be used to establish precise latitude / longitude locations for all sites where measurements are being made. Please also use the GPS to establish co-ordinates at centres of major and minor settlements (villages and towns; also private farmer's camps). It is important that we can locate almost every feature that you visit, so that consistent maps can be constructed from the information at a later date and these maps correlated with the field measurements and photographs you take.

Characterisation of the Sites (this means sites chosen in order to analyse the activities of both the village-level enterprise and the private farmers).

Each pasture should be carefully described, and the following information included:-

- ① location and extent of the region of pasture.
- ① the total numbers of livestock and a breakdown by the breeds that are currently pastured on it.
- ① the total numbers of livestock and a breakdown by the breeds that were pastured on it ten years ago (if possible - an approximation is better than no information).
- ① the time and duration that the different livestock species are pastured on each region of pasture, the order in which they are moved there, and the length of time they stay.
- ① the location and seasonal availability of water in that area, e.g. where a stream is, when it dries up, when it floods etc.
- ① the characteristic conditions (e.g. high winds, warm in winter etc.)

Classification of Vegetation Types

Obtain a listing of the major species of grass that grow on the sites, or make such a list, including the local name and if possible the Latin name. Please note if any of these grasses are considered to be particularly suitable for different types of animals, and note if there are any species of vegetation that are considered poisonous or undesirable (ask Institute personnel and / or local administrator).

It will be necessary to learn the local names for the most predominant species from institute and local village personnel; you will need to do this before the transects are carried out.

Empirical Data Collection

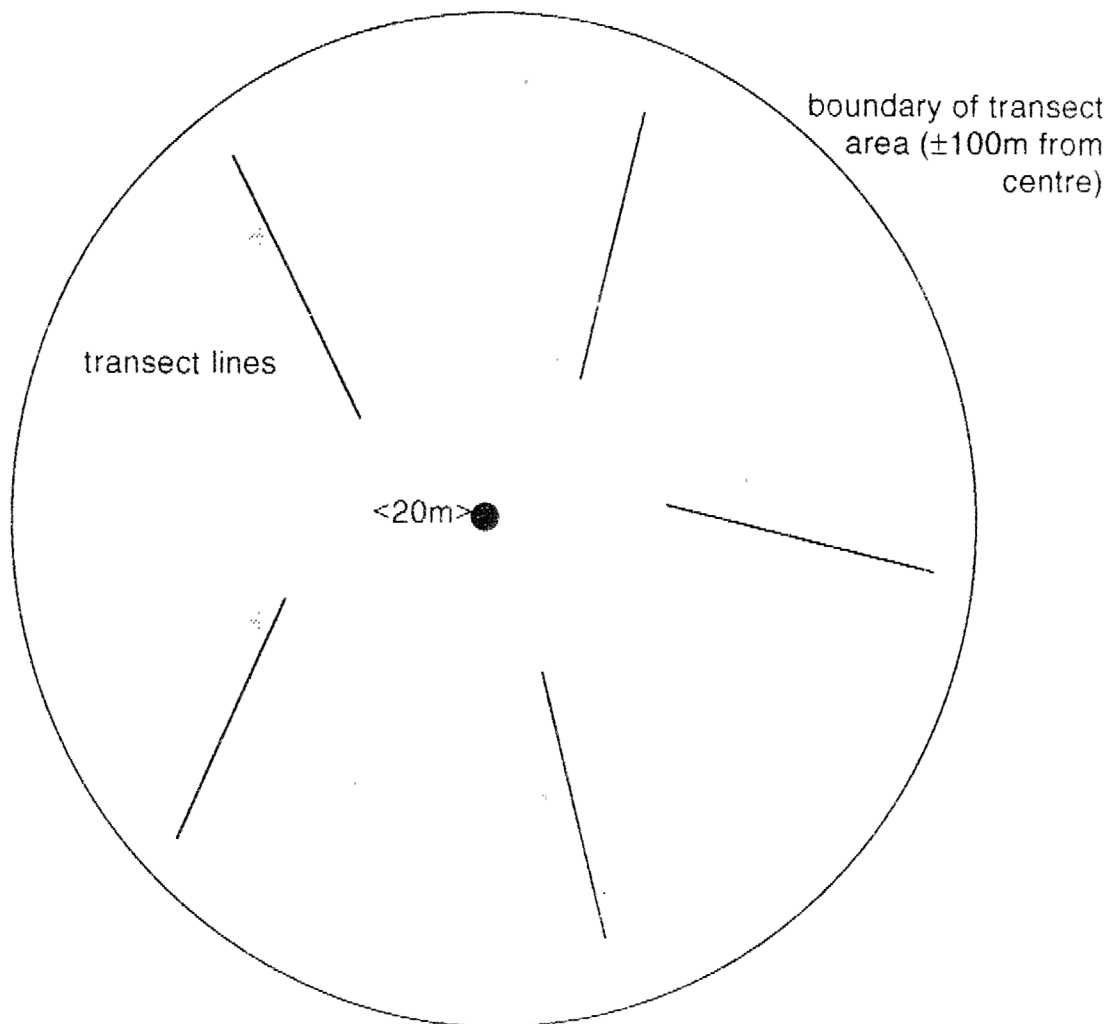
E1. Vegetation Cuttings

Go to each region of pasture mapped at the outset, and perform the following :

- in each of the two regions, choose 3 - 5 test sites for cuttings, A: at pastures used by village-level enterprises, and B: at pastures of the selected private farmers. Note the date, time of day and indicate the exact location of each one using the GPS equipment provided (consult with Dr. Gomboev and local herdsmen about number and exact position of sites)
- note the pasture type for this test site (as per Grassland Transects below)
- note the predominant grass species in each of the test sites for each of the pasture types studied
- in each selected test site, do 5 cuttings of all the vegetation in 1m diameter circles (cutting the grass 1cm from the earth).
- measure the wet weight of the vegetation (using instruments provided) and weigh the green and brown vegetation separately to calculate the percentage of the total weight in each category.
- keep the cuttings and weigh again when dry.
- list the numbers and types of grasses cut, and if possible bring some samples back.
- if a part of the pasture-region has not been grazed by animals this year, try to do cuttings of both ungrazed and grazed areas of pasture. If a farmer says that he will graze livestock, do cuttings before and after grazing has taken place.
- give a general description of the site (moisture content / shady / very windy etc...)

Transect Guidelines

- when selecting a site for transects, choose a central point, mark with a rucksack or other object and take a GPS reading (write it down!).
- then walk about 20 metres away from the central point and carry out the transects in random directions.
- also check the site against the initial characterisation made at the outset by locals. The object here is to note discrepancies.



● = centre of transect site - mark with rucksack and take GPS reading.

Sample Transect data sheet

| step | green leaf | green other | brown leaf | brown other | species (local name) | nothing |
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- find a local person who has the time to explain this to you and ask them :- "What is the maximum distance that the different species can normally move before they require the following resources?"

| Animal | Summer water salt | Autumn water salt | Winter water salt | Spring water salt |
|--------|----------------------|----------------------|----------------------|----------------------|
|--------|----------------------|----------------------|----------------------|----------------------|

Horses

male

non-lactating female

lactating female

Cattle

male

non-lactating female

lactating female

Goats

male

non-lactating female

lactating female

Sheep

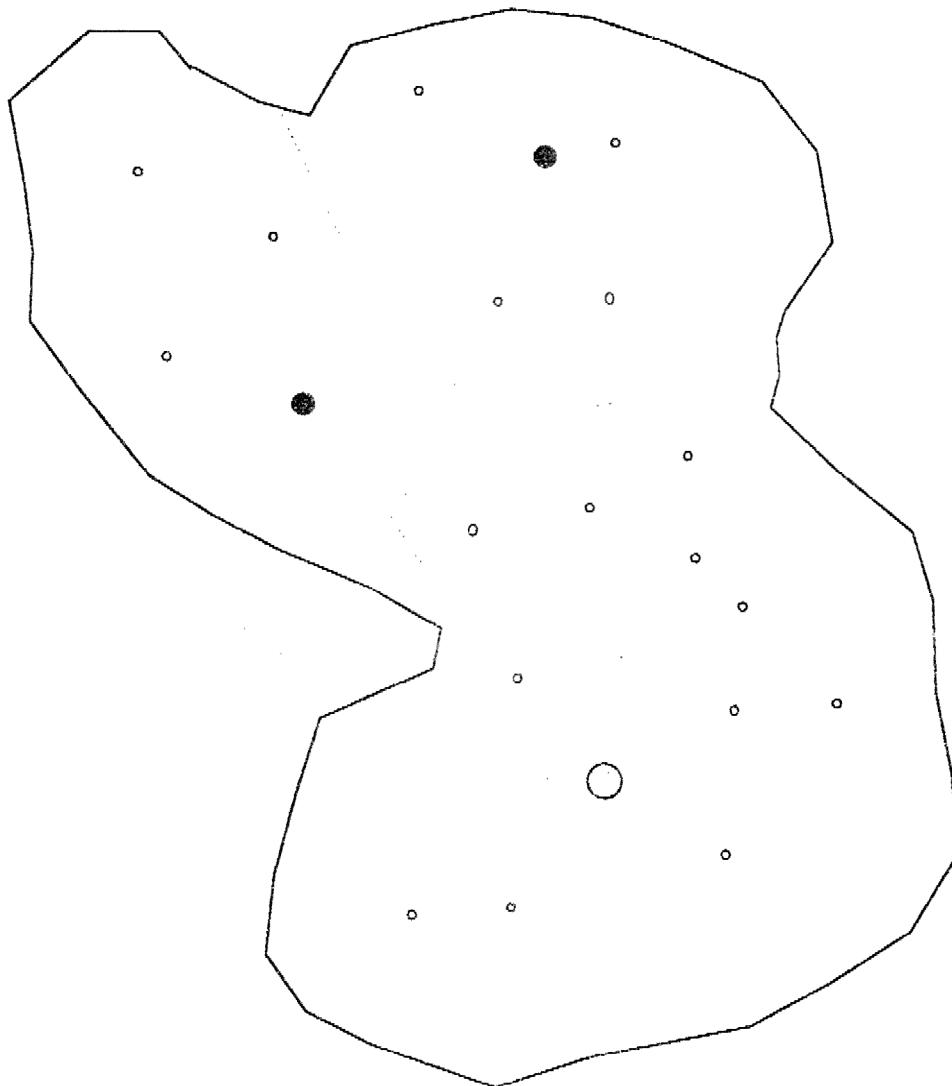
male

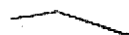
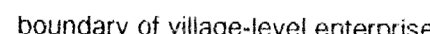



non-lactating female

lactating female

Graphical Representation of Survey Sites

(don't panic if the situation on the ground is different - things are changing every month!)



-  boundary of former State / Collective farm
-  boundary of village-level enterprise
-  Central Settlement of former State / Collective farm (now centre of village-level enterprise)
-  former centre of brigade, now centre of village-level enterprise
-  private farmer's camp