Same understanding about main deteriorating factors, determining pasture status and resources and long term informed policy making are essential for improvement of pasture management.

Pasture monitoring methodology has been approved to standardize all pasture monitoring activities on a nationwide. Under this situation a requirement has arisen to train company staff and experts responsible for pasture land quality monitoring in this newly developed and officiliazed methodology and update them about the tendency and new methodology of natural resource management.

Objective: train companies specializing in pasture land quality monitoring in the standard methodology of pasture monitoring and application of pasture monitoring data base for the purpose of upscaling the knowledge and skills to students and experts

Duration: 14 days

Attendants: company staff and experts specializing in land issues

Curriculum

Subjects	Hours	Agenda
Lectures		
Up to date tendency in natural resource management and its application	30 minutes	To raise awareness of Mongols and requir
Ecological potential, ecological units	60 minutes	To train ecological potential based past
Methodology for national pasture health monitoring	30 minutes	To train in key indicators of monitoring,
Soil analysis methodology as a part of national desertification monitoring	60 minutes	To train in key indicators for soil monitor
Methodology for pasture health monitoring	60 minutes	To train in key criteria for pasture health
Pasture monitoring data base, its advantage, data entry and interpretation	60 minutes	To train content and structure of past
Seminars		
National pasture health monitoring methodology	60 minutes	To train methodology for assessment of
Soil monitoring and analysis methodology	60 minutes	To train key indicators of soil monitoring
Ecological units and analysis	30 minutes	To train the methodology for identificatio
Criteria for pasture health assessment, methodology	60 minutes	To train in 17 criteria of pasture health r
Application principle of data base	60 minutes	To instruct how data enters and checke
Vegetation coding	30 minutes	To train principles of vegetation coding
Primary data entry in data base	180 minutes	To introduce primary data of pasture mo
Data analysis and interpretation	120 minutes	To train primary data analysis and interp
Practice		
Field pasture monitoring	5 days	Янз бүрийн бүлгэмдэлтэй бэлчээрт м
Field soil monitoring	5days	Knowledge of method and methodology
Field identification of ecological unit	2 days	Skills of using soil assessment methodo
Field pasture monitoring assessment	2 days	Skills of assessing the key pasture heal
Data base application	2 days	Skills of primary data entry, check and a
Evaluation	1 day	skills assessed as to how well attendan

Field practice

1.   *Field pasture monitoring practice :*

This covers pastures of different vegetation types and with varying degrees of degradation (luscious, degraded, sand covered). The focus subjects are as follows:

1.   Key criteria for pasture monitoring observation sites, locating monitoring units at the observation sites, locating the lines and marking starting and ending points in the lines,

2.   Marking starting and ending spots,

3.	Photo documentation and labeling,
4.	Instruction for filling in record sheets,
5.	Recording linear recording, analyzing surface and subsurface, top soil and recording in sheets,
6.	Measuring the distances between perennial plants, recording in the sheets,
7.	Methodology for locating vegetation sample taking sites, sample taking(grassy, bushy and woody plants), drying and weighing the samples Ургацын дээж авах талбаруудыг байрлуулах, ургацын (овслог болон бутлаг сооглог, модлог ургамлын)дээж авах аргазүй, хаяглах, дээжийг хатаах, жигнэх,

1.⬜⬜⬜ *Field soil monitoring and assessment practice :*
   Field practice of soil monitoring and assessment is conducted simultaneously at observation sites captured by pasture monitoring. It focuses on the following subjects::
1.	Top soil status, erosion, degradation and water absorb rate,
2.	Soil stability,
3.	Water absorb rate(circle method),
4.	Methodology for estimating soil density(Penetrometer

2.⬜⬜⬜ *Field practice of analysis of ecological units:*
   This field practice is conducted in different types of pastures which had been covered by monitoring practice. .
1.	Landscape type,
2.	Topography and direction,
3.	Soil thickness and strata, morphological recording,
4.	Methodology for feel analysis of soil mechanic structure (Modified from S.J. Thien. 1979.	*A flow diagram for teaching texture by feel analysis)*,
5.	Methodology for soil colour analysis*(Munsell soil color charts, 2000)*,
6.	Methodology for soil structure, degree and size
7.	Methodology for gravel content *(Classification of United States department of Agriculture)*	.
8.	Method for analysis of carbonization

3.⬜⬜⬜ *Field pasture health monitoring:*
  Methodology for pasture health analysis using the following 17 criteria:

1.	Water flow
2.	Extent of soil erosion to wind ,
3.	Size of eroded sites
4.	Gallying in pasture lands
5.	Wind impact on soil
6.	Thinning and exacerbation of top soil
7.	Top soil erosion and its resilience
8.	Distribution of vegetation
9.	Soil density
10.	 Structure and classification of plants

11.   Depletion and degradation of plants
12.   Amount of algae
13.   Yearly harvest,
14.   Multiplying plants
15.   Rehabilitation of perennial plants

4.□□□ Field data base :

Мэдээллийн сангийн дадлагын хичээл дараах агуулгатай явагдана. Үvнд:

1.   Checking primary data and correcting data error
2.   Creating files in data base
3.   Entry of background data: location of observation sites, vegetation classification, top
soil, erosion and degradation degrees, water absorb rate of vegetation cover, pasture
degradation degree and grazing situation
4.   Linear recording: listing plant species, entry of linear recording data,
5.   Data on distances between plant bases,
6.   Entry of yield data
7.   Checking and correcting the data
8.   Primary data interpretation: vegetation cover, top soil, distances between plant bases,
yield
9.   Summary of the data and conclusion