



БАЙГАЛЬ ОРЧИН,  
АЯЛАЛ ЖУУЛЧЛАЛЫН ЯАМ



Food and Agriculture  
Organization of the  
United Nations



## **“SOUM TERRITORIAL DEVELOPMENT PLAN” FOR BAYAN- ADRAGA, BAYAN-OVOO AND NOROVLIN SOUMS OF KHENTII AIMAG**

### *I. Preparatory report*

CLIENT: KHENTII AIMAG GOVERNER’S OFFICE

CONTRACTOR: “VECTOR MAP” LLC

Ulaanbaatar  
2022

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## ONE. BACKGROUNDS

Our company “Vector map” LLC has been carrying out the consultancy services in accordance with the ea consultancy service contract referenced ZU2022/01 established with the Khentii Aimag Governor's Office and the Aimag Land Relations, Construction and Urban Development Department to develop a “Territorial Development Plan for Bayan-Adarga, Bayan-Ovoo and Norovlin Souns of Khentii Aimag” on January 17, 2022.

Within the scope of the consultancy service, we will update and revise the Norovlin soum territorial plan that was developed in 2018 in accordance with the renewed methodology, redevelop the Bayan-Adarga soum territorial development plan that was developed in 2015 and has already expired, and develop the first ever territorial development plan for Bayan-Ovoo soum.

As part of the service, we aim to implement the risk mitigation measures in accordance with the Environmental and Social Management Framework (EIA) to prevent potential risks to the environment and society and to mitigate any future risks to the environment and society due to inadequate /unregulated planning while developing the soum's territorial development plan.


A brief summary of the work executed at the preparatory stage including basic information of the work /Part 1/ and analysis done on the information collected from the soums.

### **1.1. Objective**

The objective of the assignment is to develop mid-term development plan that supports territorial sustainable development that ensures long-term sustainable use of the land as well as keeping the ecological balance through increased efficiency and productivity of land resources and development of diverse and versatile land use that is most suitable to the natural conditions, resources, social and economic needs and traditional local features and ensure that the territorial development plan is coherent with the state and aimag general land management plans.

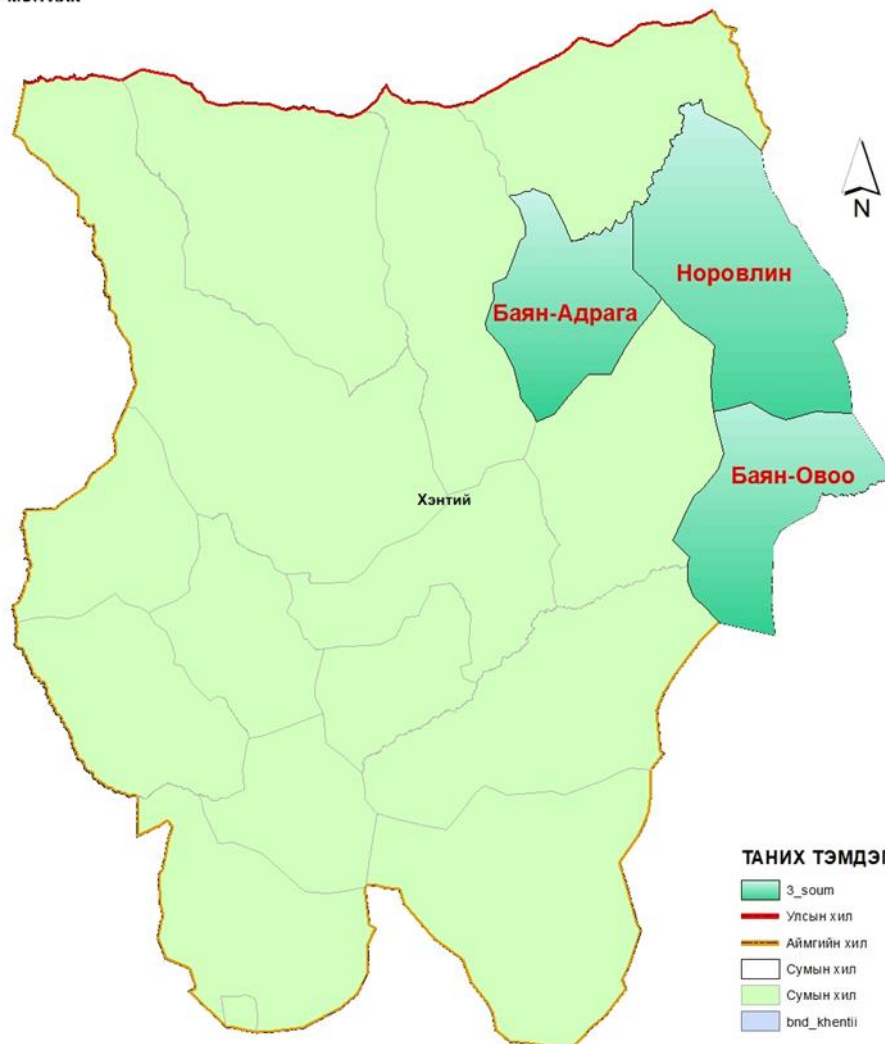
#### **1.1.1 Principles to follow:**

- ❖ *Consider and incorporate the landscape level (or ecosystem) approaches, land degradation, climate change and biodiversity in order to support prevention from land degradation and protection of biodiversity;*
- ❖ *Develop soum territorial development plans using ecosystem or landscape tools, LADA-WOCAT or other related tools using the updated land management planning methodology;*

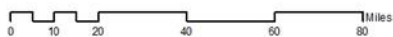
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- ❖ *Gender-sensitive and equal participation;*
  - ❖ *Ensure safe and comfortable living conditions for citizens;*
  - ❖ *Citizen and community participation and feasibility;*
  - ❖ *Environmentally friendly;*
  - ❖ *Efficiency;*
  - ❖ *Promote local and individual competitiveness;*
  - ❖ *Transparency;*
  - ❖ *Ability to monitor and evaluate.*

**Project scope:** Bayan-Adraga soum of Khentii aimag /302607.7 ha/, Bayan-Ovoo soum /339207,3 ha/, Norovlin soum / 551196.3 ha / The total project covers 1 193 011.3 ha of area / Figure 1 /.

# СУМЫН НУТАГ ДЭВСГЭРИЙН ХӨГЖЛИЙН ТӨЛӨВЛӨГӨӨ БОЛОВСРУУЛАХ СУМД



Масштаб 1: 2 000 000



Picture 1. Project soums

### ***1.1.2. Work Phases***

The soum territorial development plans will be developed through the following phases in accordance with the “Methodology for developing soum territorial development plans” approved by the Order No. A / 134 of 2019 of the Director of ALAGAC. These are:

- ✓ Preparatory work (creation of a database on the environment, natural conditions, resources, social, economic and land use, identification of information to be clarified by field research);
- ✓ Field survey (public participation survey, measurement and mapping, clarification);
- ✓ Analysis and the field survey results and develop the first draft of the plan (Analyze the results of the land use suitability assessment, socio-economic needs assessment, public opinion, initiative and other research and develop the draft plans);
- ✓ Discuss the first draft plan at the bagh citizen public meeting;
- ✓ Develop the final version of the plan
- ✓ Submit the plan to the ALAGAC for review and approval;
- ✓ Present the territorial development plan by the soum Citizens' Representative Khural and get approval the plan and submit it to the relevant organizations.

Throughout the phases of the development the “Electronic System on Land Management and Urban Planning” will be used in accordance with the “Regulation on Operation of Electronic Land Management and Urban Planning System” approved by the Order A/40 of 2020 of the Director of ALAGAC.

## **TWO. NATURAL STATUS OF SOUMS AND RESOURCE INFORMATION**

Soum boundaries were mapped and information was compiled. In addition, the boundaries of each bag have been mapped (source ALAGAC). Information on natural status and resources was collected from relevant organizations in 3 soums and data analysis was done accordingly.:

### ***2.1 Soum geographical structure and features***

In accordance with the relevant procedures, the land elevation data was obtained from the digital database of the 30-meter elevation data processed by through the Landsat-8 satellite in 2013 by the Agency of Land Administration and Geodesy (former name) . The data was prepared and processed accordingly.

- ✓ Elevation
- ✓ Slope
- ✓ Direction /compass/

### ***2.2. Soum climate features***

At the soum level, meteorological data were collected from the Meteorological and Environmental Research Agency and the soum meteorological observation station /1212.mn/, and the soum climate information was roughly mapped and processed.

Climate information's are:

- ✓ Precipitation and relative humidity
- ✓ Air temperature
- ✓ Wind and wind direction

- ✓ Sunshine
- ✓ Atmospheric pressure, etc

### **2.3 Soil and soil cover**

The proceed of making soil map with scale 1: 100,000 was conducted in Mongolia during 2012-2014 and a soil database was compiled. Soil database in 3 soums data from this database was compiled and processed. This includes:

- ✓ Soil-forming rock
- ✓ Type of soil
- ✓ Mechanical composition of the soil, etc.

### **2.4. Vegetation**

Soum vegetation, pasture condition, and plant ecological information were collected and processed in 3 soums, as well as pastureland condition, quality assurance work materials, and other plant surveys conducted in previous years. This includes:

- ✓ Ecological characteristics of plants
- ✓ Types of pasture vegetation
- ✓ Pasture condition
- ✓ Pasture condition, degradation, etc.

### **2.5. Forest**

The state of forest information in the aimag and the data from previous surveys have been compiled and the forest data has been processed..This includes:

- ✓ Forest resources,
- ✓ State of the forest
- ✓ Forest aging
- ✓ Forest management, etc.

### **2.6. Усан хангамж**

Surface water information was compiled and processed, including the 2018 water inventory census and the aimag data on the water supply database.This includes:

- ✓ Rivers
- ✓ Springs, pools
- ✓ Lakes and ponds

### **2.7. Engineer geological conditions**

The following geological information has been collected and processed at the sum level. This includes:

- ✓ Geological zoning
- ✓ Geomorphological formations
- ✓ Permafrost conditions
- ✓ Earthquakes, etc.

### **2.8. Natural resources its inside wealth**

The following information on natural resources its inside wealth has been collected and compiled at the soum level to create a database.

- ✓ Animals
- ✓ Rare plants
- ✓ Fruits
- ✓ Medicinal plants, etc.

### **THREE. SOCIO-ECONOMIC CONDITIONS**

Socio-economic information has been collected in a consolidated manner at the aimag and national levels, and soum socio-economic information has been compiled for the last 10 years.

- ✓ Demographics
  - Population and household status
  - Standard of living and income
  - Employment, etc.
- ✓ Agricultural sector
  - Livestock sector
  - Animal disease research
  - Number of livestock in herder households
  - Cropland
- ✓ Survey of business entities and legal entities
- ✓ Banking and finance
- ✓ Health
- ✓ Education / schools and kindergartens /
- ✓ Monuments of history and culture, etc.

### **FOUR. CURRENT CONDITION OF LAND USE**

In accordance with the procedure to be maintained by the Aimag's Land Relations, Construction and Urban Development Department for each soum, the boundaries of the land belonging to the unified fund category were determined for each registration unit area, and the area was determined and the inventory was conducted.

Land use is divided into the following main categories of land use and the information is compiled and processed.

#### ***4.1 Status of agricultural land use***

The current status of agricultural land use in the soums was determined from the report, and the use of agricultural land was determined. This includes:

- ✓ Pasture land use
- ✓ Haymaking land use
- ✓ Cropland use
- ✓ Land use of agricultural buildings and structures, etc.

#### ***4.2. Status of the land of cities, villages and other settlements land use***

Land of cities, villages and other settlements will be included in other towns and villages, and topographic maps and information on other towns and villages will be collected.

- ✓ Construction land use
- ✓ Mining land use
- ✓ Tourism, recreation land use etc.

#### ***4.3. Status of the land under roads and networks land use***

Information on soum roads and networks was collected and prepared. This includes:

- ✓ Land use under road
- ✓ Land use for electrical networks
- ✓ Communication and land use information network, etc

#### ***4.4. Status of land for special needs land use***

At the level of soums, information was collected and mapped on areas designated land for special needs. This includes:

- ✓ Land under special state protection
- ✓ Local protected areas
- ✓ Inter-aimag reserve rangeland /otor/
- ✓ Land for scientific and test, experiments, etc

## **FIVE. ASSESSMENT OF THE LAND SUITABILITY**

According to the Order No. A / 200 of the Director of ALAGAC dated September 9, 2015 “On approval of methodology and criteria for land suitability assessment”, Norovlin, Bayan-Adraga and Bayan-Ovoo soums have assessed according to the land suitability criteria and methodology on pasture, cropland, urban, forest, road, network and tourism. This includes:

- ✓ Assessment of the suitability of new cities and towns
- ✓ Assessment of the suitability of cultivated land
- ✓ Assessment of the suitability tourist area
- ✓ Conformity assessment of the storage area
- ✓ Assessment of the Forest land suitability
- ✓ Evaluation of land suitability for linear use
- ✓ Assessment of the suitability of reservoirs and ponds
- ✓ Assessment of pasture suitability / 5 types of livestock for 4 seasons /
- ✓ Evaluation of the suitability of hayfields

## **SIX. ASSESSMENT OF LAND RESOURCES AND USE**

### ***6.1. Soum information estimation and evaluation***

Based on the information collected at the soum level, the following processing and estimates were made. This includes:

- ✓ Assessment of ecological capacity of pastures
- ✓ Economic assessment of pastureland
- ✓ Assessment of the productive capacity of pastures
- ✓ Assessment of the people's needs for food
- ✓ Socio-economic needs

### ***6.2. SWOT analysis***

Information database collected in soums were analyzed SWOT analysis on a regular basis based on some indicators.

## **SEVEN. DEVELOPING SOUM TERRITORIAL DEVELOPMENT PLAN**

After reviewing the previous soum development plans, the information was compiled and a field survey work plan was prepared. Soum territorial development plans will be developed in the following areas.

### ***7.1 Territorial plan of the agriculture***

- ✓ Plan for seasonal pasture use
- ✓ Calculation of carrying capacity of pasture, ways to reduce carrying capacity
- ✓ Plan for pasture usage groups
- ✓ Plan to reduce rangeland degradation
- ✓ Plan for Pasture irrigation
- ✓ Plan for Haymaking areas

- ✓ Plan for cropland

### **7.2 Territorial plan of the land of cities, villages and other settlements**

- ✓ Plan for soum center settlements
- ✓ Plan for bag center settlements
- ✓ Plan for reduction of urban degradation
- ✓ Plan for mining rehabilitation and restoration
- ✓ Plan for tourism and routes etc.

### **7.3. Territorial plan of the land under roads and networks**

- ✓ Construction plan for new asphalted and improved roads
- ✓ Land plan for new power line
- ✓ Land plan for the new communication line
- ✓ Plans for the repair of bridges, bridges and ferries
- ✓ Damage plan from a traffic condition (autogenesis), etc.

### **7.4 Territorial plan of the land for special needs**

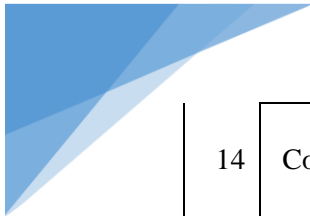
- ✓ Land plan for special needs
- ✓ Plan of the State Special Protected Area
- ✓ Plan of the local protected area

### **7.5 Protected area plan**

Mongolian legislation provides for protected areas and their procedures for each specific type of land use. In accordance with the norms specified in the protection zone, zones should be established and planned to prohibit and restrict the use of certain types of land. Shown in the table.

*Plan for the soum protection zones*

<b>№</b>	<b>Protection zone</b>	<b>Wide of the protection zone</b>	<b>Justification</b>
1	Forest of protected zone	Special Protected areas forest	Law on Forest
2		Forbidden strip forest	
3	Use zone forest		
4	Spring special protection zone	50 M	Procedures for compliance with the regime of special and ordinary protection and sanitary zones of water reservoirs and water sources
5	Simple spring protection zone	200 M	
6	Lake special protection zone	100 M	
7	Simple lake protection zone	200 M	
8	River special protection zone	100 M	
9	Simple river protection zone	200 M	
10	Well hygiene protection zone	50 M	
11	Well hygiene restricted area	200 M	
12	Crop protection zone	500 M	Law on Cropland
13	Road protection strip	60 M	Article 12.2 of the Law on Roads



14	Communication line protection strip	10 м	“Law on Communications”, Government Resolution No. 263 of 2001
15	Power line protection strip	10 м	Power line protection rules