

The Project “Ecological and Economic Background for Increasing Productivity of Pasture and Prevention it from Degradation”, financed by the Scientific & Technological Fund, is being implemented in co-operation with the Scientific Research Institute of Animal Husbandry. Within this project we are conducting tests and researches on working-out the rotation model, protection of soil humidity, rehabilitation of degraded pasture with the purpose to increase the productivity of pasture, relying on co-operation with the Pasture User Groups (PU Gs) of Ikhtamir soum of Arkhangai Aimag and of Undurshireet soum of Tuv Aimag as representative areas of forest-steppe and steppe zones.

In cooperation with 2 to 3 PUGs from the above mentioned soums we intend to test the methods and technology on the rotational usage of pastures.

Project Name: “Ecological and Economic Background for Increasing Productivity of Pasture and Prevention itfrom Degradation”

Project Duration: 2010-2012

Project Customer: Ministry of Food, Agriculture and Light Industry of Mongolia

Project Implementer: The Mongolian Society for Range Management (MSRM)

Project Manager: Mr. D. Dorligsuren, Doctor (PhD), Professor, Economist, CEO of MSRM.

Project Team Members:

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- Mrs. B. Bolormaa, Applicant for Doctor’s Title, Researcher of MSRM, Botanist,
- Mr. Budbaatar, Master, Researcher of MSRM, agronomist,

- Mrs. L. Otgontuya, Researcher of MSRM, Botanist.

Collaborating organizations:

- The Scientific Research Institute of Animal Husbandry,
- The PUGs of the selected Soums

Affiliated Areas for Tests and Researches

1. The tests and researches on the rotation model for increasing the productivity of pasture, protection of soil humidity, remediation of the degraded pasture will be carried-out in the following soums as in representative areas of the forest-steppe and steppe zones:
 2. Ikhtamir soum of Arkhangai aimag and
 3. Undurshireet soum of Tuv aimag.
 4. Depending on the level of pasture degradation, resistance, ability to resilience and threshold of the soil and the plant coverage, we will research and define the legitimacy of rehabilitation in at least 30 different points of various climate and natural zones.
5. In the forest-steppe and steppe zones we will carry-out the following agro-technical tests: "Stripe type rehabilitation", "Transplantation of baby crops", "Planting perennial seeds".

PROJECT RESUME

Project Background and Prerequisite

There on around 72.1 per cent of the territory of Mongolia or on 112.8 hectares of natural rangeland due to the drastic climate changes and improper management of the pastures, the useful area of pastures and the volume of total crops grown are being rapidly reduced and the types of plants are becoming fewer during the last years. This situation causes uncontrolled increase or decrease of live-stock on one and the same rangeland and unsustainable living standard of the herders and the people, dependent from the agricultural sector.

The information on the degradation level of the rangeland of Mongolia gives different pictures of the situation. But in most cases it is said that more than 70 per cents of rangeland has got degradation. And besides, the level and grades of degradation are not persuasively identified

for each of the climate-geographical zones. It is impossible to formulate the Government policies on the development of agriculture, particularly on livestock husbandry and on the rural people's social live improvement without proper identification of the rangeland's soil conditions, actual resources of the plant coverage, the present natural situation and trends of changes of the pastured areas.

Although some researches and technological works have been done on the rangeland management but not all of them meet the requirements. In the present conditions of the market economy, we need to work out science-based method and technology for the introduction of rotational, systematic and proper utilization of pastures, the rehabilitation of degraded rangeland and increase of pasture productivity.

In the Action Plan of the Government of Mongolia for 2008-2012 it was indicated to improve the legal environment for the utilization of agricultural land spaces, to setup a data-base of the land resources and their conditions, to protect the pastures, increase their productivity, also to increase the quality and productivity of the live-stock and to rationalize the herds' structure (Clauses 2.3.6 and 2.3.13 of the Action Plan)

MSRM is working in the following areas: improvement of the legislative environment for the rangeland utilization, including the Law on Rangeland, evaluation of the rangeland condition based on the potential of the rangeland resources, formulation and entrainment of a concept on rangeland management based on the herders' communities. We work also on working-out a technology for the rehabilitation of degraded rangelands, left arable lands and eroded lands.

The Project "**Ecological and Economic Background for Increasing Productivity of Pasture and Prevention it from Degradation**" provided by the MRMS complies with the Government policy "to encourage the participation of the non-government and civic organizations in solving the actual problems, facing the country".

The Final Result of the Project

1. Relying on cooperation with the PUGs we will increase the rangeland productivity by 10 per cents in more than 2000 hectares of rangeland in the forest-steppe and steppe zones and will work out seasonal and annual rotation models.
2. We will work out at least four recommendations on the technology of rotational utilization and improvement of rangelands suitable for various climate zones.
3. We will identify the general legitimacy of rangeland rehabilitation according to the degradation level, resistance, resilience and threshold of the soil and the plant coverage.
4. We will issue agro-technical recommendations on the "stripe-type rehabilitation", "transplantation of baby crops" and "planting of perennial seeds" for the improvement of degraded rangelands.

The innovational and progressive impacts of the Project.

Based on ecological concepts and the theory of the soil and plant resilience, the evaluation of the condition and quality of the rangelands, the rating and zoning of rangeland degradation, identification of the rehabilitation legitimacy have theoretically and methodically innovational and progressive impacts.

The tests and researches on the prevention of rangelands from degradation and their improvement, the implementation of the Project relied on the self-governing organizations of herders (PUGs) are the innovational and progressive impacts of the Project.

The scientific, social and economic importance of the Project

Scientific Importance: The scientific importance of the project is the formulation of a concept identifying the changes in the condition and quality of rangelands, based on their natural and ecological potential, the implementation nationwide of an internationally recognized set of methods for carrying out monitoring and evaluating, calculating the grazing capacity and occupancy of the rangelands, the formulation of the theoretical basis for the dynamic modeling on the ecological and economic evaluation of the rangelands.

Economic Importance: As result of the implementation of the technology for the rehabilitation of rangelands the average productivity of the live-stock may be increased by 18-34 percents and the income of the herders may become by 20 percents higher.

Social Importance: The social importance of the Project is the implementation of a technology for the proper use of rangelands and their sustainable management, resulting in its turn in the strengthening and engraining of co-operation among the herders, increasing the social capital, reducing unemployment and poverty.

The methodology, standards, models and recommendations as the final results of the Project will be implemented within the PUGs of Ikhtamir soum of Arkhangai Aimag, Undurshireet Soum of Tuv Aimag, Ulziit Soum of Dundgovi Aimag and of all the soums of Zavkhan Aimag, the affiliated areas of the MSRM.

