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## Online Poster Session

### SUSTAINABLE FOREST MANAGEMENT: CURRENT SITUATION AND CERTAIN CHALLENGES OF THE FOREST SECTOR OF MONGOLIA



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#### INTRODUCTION

Mongolia is located in East and Central Asia by bordering two biggest countries Russia and China. After a democratic revolution in 1990, Mongolia has shifted from the authoritarian communist regime with a centrally-planned economy towards a democracy with an open market economy. There is a semi-parliamentary system in Mongolia which consists of unicameral parliament and a prime minister-led cabinet, government. Sustainable Forest Management (SFM) is the management of forest which aims to keep balance between social, environmental and economic pillars. SFM consists of production of forest goods and services to meet the needs of present and future generations while preserving natural capitals. Globally, forest sector policy tends to protecting and producing. Key policy elements in forest sector tend to a more sustainable economy, a well-rounded forest ecological and relatively developed forestry industry system, in optimizing the forestry structure and promoting industrial development, and upgrading the industrial structure and strengthening the implementation of guidance and regulation on development of forestry industry.

#### FOREST SECTOR OF MONGOLIA

Mongolia has a territory of 1.566.600 square kilometers. Forest cover 8.5% of the total land area. Mongolia's forests are under-utilized, vulnerable and forest resources are largely mature forest. On average, forest resources per hectare are small and primarily based on natural regeneration. Mongolia's Sustainable Development Concept 2030 foresees that State Special Protected Areas increase from the current level of protection of 17,4% of total land space to 25% between the years 2016 to 2020, 25% from 2021 to 2025 and 30% from 2026 to 2030. The forestry units in provinces and the capital city Ulaanbaatar manage forest according to their forestry management plan for sustainable use, restoration and afforestation forest management policy framework. According to Article No.12.2 of the “Mongolian Law on Forest”, the Resolution No.255 from 2012, government can establish state owned and state financed legal entities to harvest timber from forests, build forest roads, and plant trees and seedlings for climate change adaptation purpose. Forestry departments in the provinces, forestry units of soums (administrative unit of Mongolia), inter-soum forestry units, private forest enterprises and forest user groups are main stakeholders in Mongolia.

#### DISCUSSION

Main focus of the state policy on forest sector of Mongolia, coherence of the public organizations in charge of forestry and forest management in Mongolia, success factors and shortcomings are determined in the discussion part. Those are among others:

- State policy on Forest management and coherence of the laws and regulation in forest sector,
- Role and responsibilities of the main stakeholders in forest sector of Mongolia,
- Revenues and revenue distribution in the forestry sector
- Staffing and human resource capacity and their work load,
- Required skills and knowledge of the forest sector employees.

Based on those discussion points certain recommendation are given in considering on success factors and shortcomings of forest sector of Mongolia.

#### CONCLUSION

Sustainable use, restoration, and afforestation of forest sector are regulated by state policy on forest sector of Mongolia is the main success factor. However certain shortcoming elements has been revealed in Mongolian forest sector. Those are:

- weak legal regulatory framework for addressing frequent changes in forest sector of Mongolia that contains norms and standards,
- weak organizational structure of forestry units / they interfaces with other state institutions such as local province administrations or the Central State Administrative Body/,
- there is low capacity of public sector human resources at the local administrative level, and
- educational and vocational system are not able to train required employees in forest sector of Mongolia,

To conclude, the sustainable development concept of Mongolia stipulates the sustainable use of natural resources, preserving ecosystem balances and aiming at long-term benefits, which would in turn enable inclusive economic growth, foundation of sustainable development of the society and create the basis for improving the quality of human life. Also sustainable forest management shall contain protection, restoration, and promotion, (iii) combating desertification, (iv) halting reverse land degradation, and (v) halting biodiversity loss are aimed efficient use of natural resources. Furthermore, human resource development must be addressed in the framework state policy of forest sector by defining needs of forest sector employees, being in line with public institutions, universities, research institute, forest units, private enterprise and forestry organizations, and by penetrating innovation, technology, equipment and optimal investment policy. Most importantly, proactive and broad training on all levels constitutes the precondition for ensuring sustainable forest management in Mongolia.

#### RESEARCH PURPOSE

A primary goal of the article is to explore the theoretical understanding of sustainable forest management and empirical result of the Mongolian forest sector in regarding to institutional regulatory framework, and human resource capacity. The article also provides a discussion of improvement possibilities of forest sector of Mongolia. A mixed research design that incorporated qualitative data and quantitative data was used in this study. Interviews and questionnaires were completed public officials, forest user groups' employees and private companies' employees which are responsible for forest planting, afforestation, restoration, nursery, thinning and cleaning.

#### RESEARCH RESULTS

We reached to the following results: The study found that goods and services provided by Mongolia's boreal forests indicated the value of forests to be around 431.5 billion MNT or approximately 150 mio. EURO per year. However, the economic potential cannot be utilized as state funding for state forestry units is insufficient. This is related to the following reasons: there are too few people to run operations professionally and efficiently, there is not enough manpower to fulfill the mandatory obligations from relevant laws and regulations, persons working in the forest sector have very little motivation to improve their own performance or better their qualifications, forest units have not enough financial capacity for improving operations, for example through investments into technology or product development, there are no incentives to operate in a transparent manner based with high governance standards, there is very little pressure from monitoring and evaluation bodies to perform in the best possible way. Government policy regarding the commercial use of forest clearly states that the aim shall be reinstate and develop forest road network in forested area, to support a sustainable and complete usage of forest and to establish plantations for industrial purposes by planting productive and fast growing trees. Government policy on the commercial use of forestry resources and the intention to transform the forestry units to more commercially oriented entities is not properly connected. Also, growth in revenues from the forestry sector for seven out of the 21 provinces shows that forest sector holds at least for some provinces significant economic potential to be encouraged to develop new opportunities in the forestry sector based on their favorite circumstances such as geographic location. Ministry of Nature, Environment, Green Development, Ministry of Education and Science, Ministry of Social Welfare and Labor are weak in coordinating between sectors which has negative impact on human resources planning, training of the professionals. In 2018, there are 57 academics in Mongolia who holds Ph.D degree related to forestry. There is total of 1150 registered private companies active in the forestry sector. Out of those 920 companies are directly engaged with forest work, 40.5% are doing forest planting, afforestation, and reforestation, 38% do forest nursery, thinning and cleaning. Altogether, they employ about 8000 persons. Around 2100 professional forest employees are working in the forest sector enterprises in Mongolia. Out of them, 1088 employees graduated from vocational education and training centers.

