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**Report: On the experience of forestry development in the Republic of
Kazakhstan**
(slide 1)

The Republic of Kazakhstan is the ninth largest country in the world. Located in the centre of Eurasia, Kazakhstan is characterized by a variety of natural landscapes. Every bio-geographical zone is to be found in the Republic: from the forest-steppe zone of the West-Siberian Plain to the coast of the Caspian Sea, and from the Central-Asian semi-desert to the Alpine ecosystems of the Tian Shen Mountains. This ecological variety makes Kazakhstan an important habitat for plants and animals. There are more than 6,000 plant species on the territory of the Republic, and 14% of these species are endemic. The forest-growing conditions of the country are also varied. The forests of the Republic perform important functions in climate-regulation, environment formation, field and soil-protection, water-protection and sanitary-hygiene, and act as natural reservations with a bio-diversity of 86%.

In 2003 the Republic adopted the Forest Code in accordance with the Constitution of the Republic of Kazakhstan and with the aim of reforming the forest industry (*slide 2*); in 2004, the Law of the Republic of Kazakhstan "On the protection, reproduction and use of fauna" was adopted, and in 2006 the new edition of the Law "On specially-protected natural territories" was introduced. This legislation has fundamentally changed the scheme for forest management, specified the basic criteria for the sustainable use of fauna and for the development of a system for specially-protected natural territories to act as the base component of the ecological network, providing for the preservation and restoration of bio-diversity and of unique and characteristic landscapes.

The Committee of Forestry and Hunting at the Ministry of Agriculture of the Republic of Kazakhstan is the authorized state body for forestry. It performs the executive functions of state management as well as control functions, under the authority of the Ministry of Agriculture of the Republic of Kazakhstan, and also undertakes inter-industrial coordination in the forestry and hunting sectors, and the management of the specially-protected natural territories.

Following Kazakh legislation, 85% of state forest land areas, previously belonging to state institutes for forest and fauna protection, as both legal entities and as property complexes, has been transferred to the municipal ownership of local (regional) bodies.

The delegation of the organisational issues in forest protection and forestry management to local executive bodies marks the beginning of the implementation of a policy of decentralization of state management functions.

This delegation is the logical conclusion of the functions division process. It lays the foundations for the more effective combating of forest fires and illegal logging.

The specially-protected nature areas remain under the management of the Committee of Forest and Hunting.

The forest land of the Republic of Kazakhstan covers 26.7 million hectares; out of this, the area actually covered with forest is 12.3 million hectares, making the percentage of forest land area in the country 4.5% (*slide 3*).

The breakdown composition of forest land, by forest type is: 13.4% coniferous forest, 11.1% soft-leaved forest, 49.7% saksaul forest, 23.8% bush, 0.8% hard-leaved forest and 1.2% miscellaneous (*slide 4*).

The total timber reserve in the forests is 375.8 million cubic meters, out of which 228.5 million m³ is coniferous forest, 128.9 million m³ soft-leaved forest and 15.1 million m³ saksaul forests. The average timber reserve per hectare of forest land (not including saksauls and bushes) is equivalent to 29 m³ (*slide 5*).

Saksauls and bushes are the dominant species in the forests of the desert and steppe zones

The most valuable coniferous and deciduous forests occupy only 1.2% of the Republic's territory and are found on forest tracts on island masses and on tracts on the slopes of the mountains in the south and east, the northern and small knolls in the centre of the country, the sandy strips of Priirtyshie and the hydromorph river valleys and represent relic ecosystems, characterised by their weak sustainability.

The coniferous forests, which will potentially remain the principal raw resource for timber activities, are the most vulnerable to natural and technogenic influences.

The Pine forests (pineries) of the Northwest, the pine forest strips of Priirtyshie and the spruce-fir forests in the east, mixed with birch, fruit tree species and bush, constitute the most valuable landscapes in terms of their aesthetic qualities and their importance in recreation, natural medicine and environmental protection. Their utilization as a basic wood source is the least effective use of forest resources from an economical point of view, and the most dangerous from an ecological perspective.

Intensive exploitation of coniferous forests in the past, as well as extensive forest fires in 1996-2005, especially in the eastern and northern regions of the Republic have led to a reduction of 30% in the areas of coniferous forest, a decrease in wood reserves, and the significant loss of protection, water-protection, recreational and other useful features of the forests, as well as the sharp deterioration of their sanitary condition, and the onset of steppification and desertification processes.

In the situation now facing the coniferous forests of the Republic, the sustainable and non-exhaustive use of forest resources is no longer the top priority. What must be addressed is forest preservation and reproduction.

To address the drastic deterioration of forest conditions and composition, between 2002 and 2004 the Government of the Republic of Kazakhstan took a series of decisions aimed at the support and regeneration of the forest industry. The most important decisions were a prohibition on wood and saw-timber exports, the declaration of a 10-year moratorium on logging for general use in the coniferous and saksaul forests, as well as an increase in finance for measures directed at the protection and reproduction of forests.

Reproduction of forest resources is the principal task facing forestry in the Republic. It focuses on the use of natural and artificial methods of forest renewal.

The creation of forest cultures plays an important part in increasing the percentage of forest land. Artificial plantations currently account for 1029,300 hectares, or about 10% of forest land.

In spite of the significant fall in the volume of forest renewal over the last ten years, from 69,700 hectares in 1992 to 8,900 in 2002 (*slide 6*), in the last four years there has been discernable growth in the volume of forest reproduction. In 2004, the Republic's volume of forest reproduction and afforestation amounted to 24,000 hectares, including the planting and sowing of 19,500 hectares; in 2005, the volume of forest reproduction increased 1.6 times, and last year forest renewal work was undertaken over an area of 36,900 hectares, including the planting and sowing of 30,400 hectares. Since 1997, work has been ongoing to establish a sanitary-protective green zone in the Republic's capital, the city of Astana and 30,000 hectares of green plantations have already been created.

The development of the plantation cultivation of timber species for a variety of purposes is a priority task for the forestry sector. Worth mentioning in this context is the development of private forest ownership, and particular attention is now being paid to this development. It will make it easier to attract investment in forest cultivation, and eventually to raise the percentage of the forest land in the Republic and promote the preservation of natural forests.

Forest fires continue to cause significant damage to forests. In years of drought they destroy thousand of hectares of forest plantations. A Forest Protection Service was created for fire-prevention and fire fighting, employing more than 5000 people. In addition, air patrols are maintained on forests larger than 6 million hectares. The land-based fire service has 127 fire towers and masts and over 170 fire-chemical stations stocked with fire-prevention equipment.

According to long-term statistical data, on average approximately 1000 forest fires occur on the territory of the state forest land during the period of heightened fire risk (*slide 7*). The size of area affected by the spread of fire depends on many factors, but the main factor is weather and climatic conditions. In spite of the steady fall in the number of forest fires, they still cause significant damage to the forest land of the Republic. Last year, 959 forest fires occurred on state forest territories. The total area affected by these fires was 46,000 hectares, including 22,000 hectares of forest.

Fires are caused both by (*slide 8*) natural factors and human activities, and these represent the greatest danger in the peak periods for fire risk in spring and autumn. For example, during agricultural work in spring and autumn, the number of

fires arising from dry grass burning and the careless handling of fire increases dramatically. Of the natural factors, severe thunderstorms present a very serious threat. An analysis of the largest forest fires in the Republic has shown that the largest area affected by forest fire (62%) fell victim to the spread of steppe fires to the territory of the state forest land.

The pine forest strips of Priirtyshie are still particularly prone to fires (*slides 9, 10, 11, 12*).

In spite of the decrease in illegal logging and measures taken by state bodies, there are a number of problems in curbing illegal deforestation, particularly in the pine forest strips of Priirtyshie (*slides 13, 14, 15*).

Kazakhstan is one of the world's forest-poor states. Forest vulnerability is very high here, due to the weather/climatic conditions of its territory. In spite of a critical shortage of forests, the use and abuse attitude to forest resources has not yet been overcome, and public awareness of the ecological importance of forest resources has so far not been consolidated. Society as a whole does not have a concrete view of the phenomenon of forest poverty, nor of the consequences of excess timber harvesting or other thoughtless actions leading to the reduction of forest areas that are in any case in very short supply.

Forestry in Kazakhstan should be directed at forest expansion and at the preservation of forests, as ecologically valuable objects that have great value in our lives; the place of forests as a source of timber should be a subsidiary consideration.

At the same time, the existing problems of forest preservation and renewal in the Republic, as well as a study of forestry policies in European and non-European countries, provide the opportunity for a fresh evaluation of the work so far in the forestry sector.

To this end, a long-term forestry policy (up to 2017) is being developed in the Republic, providing for a conceptual revision as well as a more precise definition and broadening of tasks to ensure the integrity of bio-diversity in forest ecosystems underpinned by principles of sustainable development directed at:

1. Extending structural reorganization and further decentralization of forestry management, alongside a strengthening of the coordination and control functions of the forestry authority;
2. Developing ecological forestry on the basis of a transition from the raw-resource principle to the ecological-economic principle of the use of forest resources;
3. Increasing the efficiency of forest preservation and protection, the sustainability of forest ecosystems and the preservation of forest biodiversity;
4. Strengthening the participation of public organizations in forest management and increasing the awareness of civil society, so that the local population will support and perform the tasks of the Concept;
5. Optimizing the financial mechanism, the system of payments and the measures fostering economic motivation, to promote the preservation and extension of the forests;

6. Improving forestry legislation directed at making changes to the administrative and controlling/supervising functions over the forest complexes, increase in the liability of those who misuse forests for the damage they cause;

7. Developing the network of specially-protected natural territories as the most effective mechanism for the preservation of biodiversity;

8. Creating and developing the private forest sector and industrial forest plantations for various purposes that have a low level of timber harvesting in order to supply the needs of the forestry and timber processing industries;

9. Developing the institutional, research-and-production and technical bases for the organization of a system of state/private consultancies as well as scientific services, design-technology, air forest protection, forest protection and other services in forestry;

10. Developing and applying innovative technologies in the system of forest cultivation and use of forest resources;

11. Providing for the training of highly-skilled staff, able to solve tasks assigned, within the developing conditions of the market economy;

12. Developing international cooperation and integration in the field of sustainable forest management, and promoting a balanced development of the forest sector.

The implementation of the above-mentioned measures for forest protection, reproduction and expansion, and the creation of private forest land will bring the percentage of forest land in the country up to 5.0 by 2017, and thereby ensure that the sustainable development of the forests in Kazakhstan will continue.

Thank you for your attention (*Slide 16*).
