

European neighborhood and partnership instrument east Countries forest law enforcement and governance II Program (ENPI east countries FLEG II Program)

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Country Workplan for the Russian Federation

Area I

Improving the FLEG planning and monitoring at the national, local, and interagency levels

Activity 1.1

Improving forest governance as applicable to key forest management operations

Objective 1.1.5

Assess and improve governance and law enforcement in forest pest management

Report (analytical note)

Prepared by:

A.N. Bobrinskiy, M.A. Kopeikin, E.P. Kuzmichev, N.N. Kharchenko, and M.N. Yagunov

Under the general editorship of E.P. Kuzmichev

FLEG II Country Program Coordinator from the World Bank:

M.I. Smetanina

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EUROPEAN NEIGHBORHOOD AND PARTNERSHIP INSTRUMENT EAST COUNTRIES FOREST LAW ENFORCEMENT AND GOVERNANCE II PROGRAM

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Executive summary

The EU funded regional program titled: EUROPEAN NEIGHBORHOOD AND PARTNERSHIP INSTRUMENT (ENPI) EAST COUNTRIES FOREST LAW ENFORCEMENT AND GOVERNANCE (FLEG) II PROGRAM (ENPI EAST COUNTRIES FLEG II PROGRAM) is aimed at putting in place improved forest governance arrangements through the effective implementation of the main priorities set out in the St. Petersburg Ministerial Declaration and Indicative Plan of Actions on the Europe and North Asia Forest Law Enforcement and Governance (ENA FLEG).

The Program is to support the participating countries strengthen forest governance through improving implementation of relevant international processes, enhancing their forest policy, legislation and institutional arrangements, and developing, testing and evaluating sustainable forest management models at the local level on a pilot basis for future replication.

This Analytical Note presents results of the first year of the program (July 2013 – June 2014) under the objective to assess and improve governance and law enforcement in forest pest management, set for the entire lifetime of Phase 2¹.

According to the Russian Forest Health Centre, the area of forests with disturbed or lost resistance is 9,595,100 ha, including 2,587,300 ha of perished forests. Forest health is causing the greatest concern in the Central and Far East Federal Okrugs.

Forest fire is the main contributor to forest damage and mortality. For 2010-2013 alone, forest mortality was estimated to exceed 2.5 million ha, including areas, detected through remote sensing, and according to reports from

Russian regions, the total forest stand mortality is about 1.1 million ha in the same period.

The recent decade saw noticeably increased adverse impact of abnormal weather on forest health and forest mortality. Weather conditions are ranked the second or the third among the causes of death of forest stands. Data on forest losses to weather and climatic events reveal evident growth in the area of perished forests. In 1977-1986, the annual area of forests, perished due to these causes, was 54,900 ha, in 1987-1996, it was 52,400 ha, whereas in 1997-2008, it increased to 64,300 ha. But during the five years after 2008, it escalated to reach 80,800 ha.

The strongest impact of abnormal weather events (such as hurricane winds) occurred in 2010. Unprecedented areas of windfalls were found along the borderlines of an extraordinarily persistent anticyclone which “hanged” during the second part of the summer 2010 under European Russia. The next most destructive natural calamity is droughts. In 2013, the Far East suffered from a severe flood. Its impact on forests has not been fully evaluated yet; however, it is obvious that its associated forest health impairment and death of forests will be a substantial determinant of the forest status in the Russian Far East.

Impact of forest pests: In the period of 1977-2011, the annual area of forest pest outbreaks averaged 3.33 million ha, and ranged from its minimum of 1.3 million ha in 1992 to its maximum of 10.4 million ha in 2001. This area is huge even for Russia. Until recently, its yearly variation was determined by outbreaks of the Gypsy moth (*Lymantria dispar*) and Siberian moth (*Dendrolimus superans sibiricus* Tscetv), but the recent decade has started to change



this trend of the 20th century. The Siberian moth which was the most dangerous pest for forests of Russia, began to share its perniciousness leadership with the eight-dentated bark beetle (*Ips typographus*), in the past decade. The latter species strikingly manifested itself in the mid-2000ies in northern areas of European Russia when they suffered from disastrous mortality of spruce forests on an area of about 6 million ha. This bark beetle became notoriously known after 2010 when it killed a significant part of spruce forests in the Moscow Oblast.

Experts from the Russian Forest Health Centre presume that the recent dry years produce a trend towards increased tree susceptibility to necrosis and cancer causative agents, particularly, fungi of *Cytospora* species and bacteria of the *Erwinia* genus.

Overall, regional differences in prevailing forest killers are primarily accounted for by different consequences of the 2010 abnormal weather in Russia. In the Central Federal Okrug, fires and insect infestations are equally destructive while adverse weather and climatic conditions are by an order of magnitude less significant as is the impact of forest disease. In the North-Western Federal Okrug, on the opposite, the prevailing factor is extreme weather conditions, first of all, windfalls and windbreaks of 2010. In the Volga Federal Okrug, adverse weather also prevails among the causes. In the Ural, Siberian and Far East Federal Okrugs, fire is the leader among forest killers.

Krasnoyarsk Krai: The area of forests, perished in 2002 -2013, is 168,300 ha or 0.16 % of the forested area in the region. Forest fire is the leader among forest killers. In the recent 12 years, fires killed forest stands on an area of 139,127 ha (83 % of the total area of forests, perished during this period). In that period, insects killed forest stands on an area of 26,241.4 ha (16 %). In that decade,

the area of forests lost to abnormal weather, forest disease, anthropogenic and other impact was smaller by an order of magnitude and amounted to 2,943.2 ha (1.7 %). In this region, the forest pest situation is overall stable, but since 2012, the *Polygraphus proximus* Blandf has been tending to proliferate; this species is a “new-comer” from the east and poses a serious threat to fir forests.

Voronezh Oblast: The main causes of forest death were forest fires (89.8% in the area of perished forest stands in 2003-2013), forest diseases (6.6%), weather conditions (2.2%) and forest damaging insects (1.3%). The weather and climate make insignificant impact on forest mortality in the region. In that period, the area of forests lost to weather abnormalities was 0,500 ha or 0.1% of the forested area. The main causes of forest mortality were droughts and changed level of ground waters. Other dangerous weather phenomena (frosts, snowfalls, snow-breaks, bogging) tended to be of local significance.

Moscow Oblast: In recent years, the most important event for forests was abnormally hot and dry weather in the second part of the summer and early autumn in 2010 года, and its consequences. In that period, the prevailing causes of forest death were insects and forest fires. An immense outbreak of different associated stem bark beetles, dominated by the *Ips typographus*, is the most prevalent process in forests of the Moscow Oblast after the year 2010. The giant amounts of dead wood in forests are estimated at several millions of cubic meters. They have accumulated due to the catastrophic mortality of spruce stands and create a critically dangerous situation with a very high risk of forest fire occurrence in densely-populated areas in the region.

Evident deficiencies of the forest legislation, governing forest pest management may be

¹ The data and conclusions, presented in the Executive Summary may be complemented, changed, specified and further developed in the course of fulfilling the assignment

ranked as follows: 1. Forest planning documents fail to provide for preventive measures and thinning operations in adequate volumes; 2. Forest districts and forest users, holding long-term forest use contracts, have no right to timely remove even individual xylophage-infested trees on their own; 3. This leads to accumulation of dead wood, growth of xylophage populations and increased risks of their proliferation, resulting into extensive damage and death of forests.

The effective Forest Code does not define responsibilities either for forest health in non-leased forests or for forest pest surveys to underlie all forest pest management operations. The Forest Code does not contain any unambiguous definition of whether sanitary cutting operations are part of forest use or not. In practice, forest law enforcement classifies such operations as forest use, which implies the need first to make changes in forest planning documents, and only after that to start cutting. Therefore, it is impossible to undertake sanitary cutting in a timely manner to prevent xylophage outbreaks.

In protection forests and in water conservation areas, final cutting is prohibited. This creates a perverse incentive to apply selective cutting of high intensity without limits on the residual stocking. After such selective cutting, there are no formal obligations to undertake reforestation

of the areas, which are actually cutover areas. The Forest Code has introduced a direct rule, prohibiting applying toxic chemicals in protection forests, which makes it indeed impossible to take any feasible forest pest management measures against the pests which cannot be controlled with legally available biologicals.

The Forest Code contains rules which make the status of forest pest monitoring uncertain. The goals of such monitoring are defined only as utilitarian aspects of information, related to forest pest management. Due to this inconsistent definition of goals for pest management (which is one of the most important constituents of sustainable forest management), information from this source which is independent from the local trends and interests is practically not used for assessing the quality of forest management. The effective Rules of Sanitary Safety in Forests are actually a framework document, which does not define such important elements of sanitary security as responsibility for the quality of forest pest surveys and its timely control, segregation of responsibilities among officials in charge of forest pest monitoring and forest pest surveys.

Guidelines on forest pest management operations, approved by Order of the FFA # 523 of 29.12.2007, fail to properly make up for the gaps in the Forest Code and the Rules of Sanitary Safety in Forests.