FORS²D

FORESTRY SCIENCE FOR SUSTAINABLE DEVELOPMENT

BOOK OF ABSTRACTS

"Perspectives of forestry and related sectors as drivers of sustainable development in the post-Covid era"

Banja Luka, the Republic of Srpska / Bosnia and Herzegovina
29–30 September 2022

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Perspectives of forestry and related sectors as drivers of sustainable development in the post-Covid era

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FORESTRY SCIENCE FOR SUSTAINABLE DEVELOPMENT

"Perspectives of forestry and related sectors as drivers of sustainable development in the post-Covid era"

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Foreword

Dear participants and friends,

The International Scientific Conference "***Forestry science for sustainable development FORS²D – Perspectives of forestry and related sectors as drivers of sustainable development in the post-Covid era – FORS2D***" in Banja Luka is held on the occasion of important Jubilee (30 years) of the Faculty of Forestry, University of Banja Luka, and 30 years of PFE "Šume Republike Srpske" a.d. Sokolac, in cooperation with FAO (*United Nations Food and Agriculture Organization*). Considering global changes that we are facing, the importance of forests cannot be underestimated. We depend on forests for our survival, from the air we breathe to the wood we use, but without education and scientific research we cannot promise sustainable development or sustainable forestry. Besides basic functions of forests needed for humans, forests also offer climate change mitigation, watershed protection, prevent soil erosion and torrential floods that we are frequently facing in recent decades. Unfortunately, despite our dependence on forests, we are still allowing them to disappear.

This Conference will give an opportunity for participants to address important issues related to forestry, exchange recent research, knowledge and experiences in forestry and related fields, to establish functional international cooperation among institutions, to improve cooperation between forestry science and practice and finally to forestry as important sector for human well-being at local, national and global level.

The Conference is organized in nine sessions along different themes. Together there are five plenary lectures, 64 oral presentations and 64 poster contributions, with more than 120 participants.

As announced, authors, the reviewed and accepted papers are going to be published in the Bulletin of the Faculty of Forestry, University of Banja Luka (http://glasnik.sf.unibl.org).

We wish you a very successful Conference and pleasant stay in Banja Luka.

Chair of the Organization Committee

Marijana Kapovic Solomun

Predgovor

Dragi učesnici i prijatelji,

Međunarodna naučna konferencija „Šumarska nauka za održivi razvoj FORS^{2}D – Perspektive šumarstva i povezanih sektora kao pokretača održivog razvoja u post-kovid eri – FORS^{2}D" se održava u Banjoj Luci povodom značajnog jubileja (30 godina) Šumarskog fakulteta Univerziteta u banjoj Luci i 30 godina JPŠ "Šume Republike Srpske" a.d. Sokolac, u saradnji sa FAO (Organizacija Ujedinjenih nacija za hranu i poljoprivredu). Imajući u vidu globalne promjene kojima se suočavamo, značaj šuma mora biti posebno istaknut. Opstanak čovječanstva zavisi od šuma od vazduha koji udišemo do drveta koje koristimo kao materijal, ali bez obrazovanja i naučnog istraživanja ne možemo obećati održivi razvoj ili održivo šumarstvo. Pored osnovnih funkcija šuma potrebnih čoveku, šume takođe nude ublažavanje klimatskih promjena, zaštitu riječnih slivova, sprječavanje erozije zemljišta i bujičnih poplava sa kojima se često suočavamo poslednjih decenija. Nažalost, uprkos činjenici da zavisimo od šumskih ekosistema, mi i dalje dozvoljavamo da one nestaju.

Ova Konferencija će pružiti priliku učesnicima da se pozabave važnim pitanjima vezano za šumarstvo, razmijene novija istraživanja, znanja i iskustva u šumarstvu i srodnim oblastima, da uspostave funkcionalnu međunarodnu saradnju među institucijama, da unaprijede saradnju šumarske nauke i struke i konačno da istaknu šumarstvo kao važan sektor za ljudsko blagostanje na lokalnom, nacionalnom i globalnom nivou.

Konferencija je organizovana u devet sesija na različite teme. Učesnicima će se obratiti pet eminentnih plenarnih predavača, 64 usmenih izlaganja i 64 poster priloga, sa više preko 120 učesnika. Kako je najavljeno, recenzirani i prihvaćeni radovi biće objavljeni u Glasniku Šumarskog fakulteta Univerziteta u Banjoj Luci (http://glasnik.sf.unibl.org).

Želimo Vam uspješnu Konferenciju i ugodan boravak u Banja Luci.

Predsjednica Organizacionog odbora

Marijana Kapović Solomun

THEMATIC AREAS

1. Forest and sustainable development in light of climate change
2. Nature-based solutions
3. Let's green, be seen
4. A modern and competitive forestry sector
5. Innovative value chains and sociological aspects in forestry and related sectors

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INFLUENCE OF THE SOIL PROPERTIES ON THE SESSILE OAK STANDS (*QUERCUS PETRAEA*)

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ABSTRACT

Oak forests are widespread forest communities in the deciduous vegetation. From the 10 species of oaks in Serbia, next to pedunculate oak (Quercus robur), the most valuable and common type of tree is sessile oak (Quercus petraea). Sessile oak is characterized by a relatively wide ecological amplitude, so it is almost present in all forest areas, as well as in low mountains. In addition to the economic importance of sessile oak forests, their protective role against soil erosion is also important. However, degradation and drying of sessile oak forests is very pronounced. Proper land management not only increases its productivity, but also provides a valuable mechanism for mitigating the effects of climate change and a way to preserve ecosystem services. The aim of this study is to determine the dependence of soil properties on sessile oak forest condition. For this purpose, properties of sites with endangered oak stands were compared with a sites with stand in a good health condition. Results indicate significant dependence of oak condition on soil properties. Sites with endangered oak have higher silt component and bulk density, lower EC-electrical conductivity, pH, Corg, porosity and Atterberg limits, while contents of micro and macroelements is similar between sites. This study contributes to understanding of the impact of soil properties on the natural regeneration of sessile oak forests, which is an important prerequisite for improving forest cultivation, especially related to the climate change.

Key words: soil quality, oak forest, soil erosion, climate change

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