

FOREWORD

The special issue of the Scientific Bulletin of the Ukrainian National Forestry University (UNFU) was composed by the scientists from universities and scientific institutions of Ukraine on the occasion of the 125th anniversary of the founding of the International Union of Forest Research Organizations (IUFRO). The pages of the Bulletin contain information on forests and forestry in Ukraine, emphasize the problems and priorities of forestry development. Special attention is given to the need of reforming the forestry sector on the principles of ecological economic paradigm and close-to-nature forestry, improving the forest management system and implementing the concept of sustainable forestry development.

The collection of the articles presents the results of studies on topical issues of Ukrainian forestry in the context of its current state and prospects for development: conservation and non-exhaustive use of forest genetic resources; planting of plantation-type forest stands and energy plantations; development of forest seedling and tree planting technologies; identification of population ecological structure of forest stands in mountain and plain conditions; emergence of wind deadfall and increase of wind resistance of Carpathian forest stand; reproduction of genetic resources of the main forest reproductive breeds in vitro; development of technologies for protection of forests from damage by phytological diseases on molecular genetics principles and reduction of harmful influence of endoscopic agents in forest plantations; transport development for exploitation of forest areas taking into account potential ecological risks ensuring adaptation of the forest sector to the conditions of climate change; accumulation of biomass with field protecting forest shelter belts and their role in reducing the greenhouse gases concentration; the evolution of forest policy on the principles of ecological economics and taking into account societal expectations; development of cross-border economic cooperation and harmonization of legislature in the field of forestry.

Ukrainian scientists are permanently involved in the IUFRO activity with a task to provide

high quality research on the basis of global cooperation, conservation of forests around the world, dissemination of scientific forestry knowledge, information exchange, formation and adoption of forest legislation. In particular, the scientists of the Ukrainian National Forestry University participated in the three (XVIII, XXI, XXII) World IUFRO Congresses (Ljubljana, Slovenia, 1986; Kuala Lumpur, Malaysia, 2000; Brisbane, Australia, 2005). Also they took part in the international symposia and conferences of the IUFRO on the issues of economics and accounting in sustainable forest management (Prague, Czech Republic, 1999; Sopron, Hungary, 2002; Toronto, Canada, 2004; Padua, Italy, 2005; Lviv, Ukraine; 2007; Vienna, Austria, 2016).

At the XVIII World IUFRO Congress (Ljubljana, Slovenia, 1986) for the first time the conception for solving ecological economic problems of forestry development was presented by Prof. Yu. Tunytsya. It was published fully by the University of Oregon Publishing House, USA, 1987.

The issues of ecological economic doctrine elaboration as a key factor of sustainable development with emphasis on economies in transition were considered in the presentation by Yuriy Tunytsya and Taras Tunytsya at the XXI World IUFRO Congress (Kuala Lumpur, Malaysia, 2000).

In 1995, the UNFU hosted the IUFRO Symposium on Beech Problems, and in 2007 the IUFRO Symposium "*Building insights of managerial economics and accounting towards sustainable forest management. IUFRO unit 4.05.00 Managerial Economics and Accounting*".

Rector of the UNFU, academician of the National Academy of Sciences of Ukraine, Professor Yuriy Tunytsya has long been coordinator of the IUFRO working group on ecological economics. At the 21st Congress of IUFRO (Brisbane, Austria, 2005) he was confirmed as co-organizer of the subsection "*Conditions for the transition to sustainable forestry*". The University researchers have been working for a long time in the working group on managerial economics and ac-

counting (Division 4.05.00 – "Managerial Economics and Accounting, Section 4 – Forest Assessment, Modeling and Management".

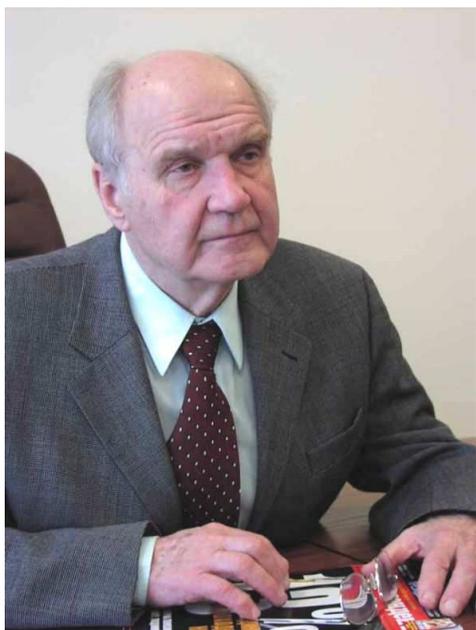
It should also be mentioned that Professor of the UNFU, Stepan Gensiruk, was awarded a gold medal and IUFRO laureate diploma in 1999 for in-depth forest studies and their international recognition.

The delegation of Ukraine headed by Prof. Yuriy Tunytsya is going to take an active part in the IUFRO 125th Anniversary Congress (18–22 September 2017, Freiburg, Germany). The contribution of the Ukrainian scientists to the Congress program includes promoting this issue of Scientific Bulletin. Their presentations would inform the

Congress about forests and forestry in Ukraine, their state and prospects for development. The growing importance of forest for achieving SDGs (UN, 2015) and implementing the Paris Climate Agreement would be particularly concerned there.

The editorial board is deeply grateful to all the authors of the issue devoted to the IUFRO 125th Anniversary Congress. Special acknowledgement deserves the contribution by the State Forest Resource Agency providing data on forests and forestry of Ukraine. We hope that this publication will promote the achievements of Ukrainian forestry science on international scene.

**To the 125th Anniversary IUFRO Congress
Freiburg, Germany**



Dear Mr. Congress Chair,
Dear Mr. President of IUFRO,

it is a great honor and pleasure for me to send my warmest greetings to the 125 th Anniversary IUFRO Congress. As one of the founders of independent Ukraine, I see in your institution a strong ally for pushing this country onto the path of sustainable development. We greatly appreciate IUFRO's contribution to conservation, reproduction and restoration of planetary forests and want to implement your achievements in forestry of Ukraine. In late 1990-ies the Analytical Council at the government of Ukraine studied the state of forest resources in Ukraine and got the results that the parameters of the oak, beech and pine wood are almost optimal as well as all that is growing on our productive soils.

At present we are very interested in IUFRO's attention to Ukraine's forest sector challenges, so much underestimated in EU-Ukraine Association Agreement.

These are before all promoting, regeneration and conservation of forest cover throughout our territory and excluding illegally harvested timber from trade flows.

Your knowledge, advices and assistance are necessary for us to put planting, managing and conserving as well as logging and trade in forest products onto the basis of SFM.

I wish all of you strong health, personal happiness, wellbeing and further achievements in your noble mission to preserve and enrich our common natural heritage.

Sincerely yours

A handwritten signature in black ink, appearing to read 'Ihor Yukhnovskiy'.

Ihor Yukhnovskiy,

Member of Verkhovna Rada (Parliament) of Ukraine (1989-2005),
First Vice Prime Minister of Ukraine (1992-1993),
Chairman of Advisory Board of Ukrainian National Forestry University,
Elected full member of the National Academy of Sciences of Ukraine.

Lviv, Ukraine, September 17, 2017

**To the 125th Anniversary IUFRO Congress
Freiburg, Germany**



Dear colleagues,

My warmest greetings for the 125th Anniversary IUFRO Congress.

I wish you fruitful results in solving the scientific problems of the world forestry.

I completely share the values of IUFRO as a global scientific community. I highly appreciate your in-depth approach to forestry as a crucial factor for integral development of society but not only as a source of raw materials for trade. I hope for your support in implementing such an approach here in Ukraine.

My special greetings to Ukrainian delegation that presents achievements of forestry scientists to the Congress.

The Congress can be sure that State Agency for Forest Resources of Ukraine will learn from its outcomes and will implement the best knowledge and practices of IUFRO.

Forest policy of Ukraine will be aimed at European integration and observing all standards and regulations of SFM. This is exactly what UN SDGs and Paris Climate Agreement, adopted by Ukraine, foresee.

Wish you all the best and great success.

Sincerely yours

A handwritten signature in black ink, consisting of several long, sweeping horizontal strokes with a central vertical stroke crossing them.

Volodymyr Bondar,

Deputy Head of State Agency for Forest Resources of Ukraine, Kyiv