

Forestry - between conservatism and populism

Outlining possible responses and actions of the forest community to oppose populism directed against forest science and practice is the main goal of this report.

The history of modern forestry is relatively short. It is generally accepted that it began in the late 18th and early 19th centuries in Western Europe. Then the question of the need for the restoration of forests in mountainous areas and the establishment of services for their maintenance and organization of activities in them was considered important by a significant part of the population. These include farmers who provide food and need sustainable land use, industrial producers who constantly and increasingly use timber for construction, energy and in the production itself, as well as government institutions and especially the army, which is demanding more and more quality wood for the navy and armaments.

As in the past, so today forestry is a product of the current need of society to meet certain economic, social and environmental needs. This is the reason it develops and changes over time. It was initially believed that by successfully controlling and organizing the regeneration of forests and the supply of increasing volumes of timber for the growing material needs of society, forestry sufficiently ensures the existence and functioning of all other benefits of forests. This typical approach of monofunctional forestry is characterized by the use of clear cuts and coppice management. At the same time, the desire to improve the economic results in land use leads to the imposition of commercial thinning and regeneration activities based on natural regeneration under control of the foresters. This is how more complex silvicultural systems generally arise. They turn out to be extremely adequate for the multifunctional forestry that has become necessary after the end of WWII. With the improvement of people's living standards and the need for a healthy break from the everyday urbanized, technological environment, attention to forests as a refuge for wildlife and a source of specific environmental services is becoming increasingly important. Thus, the well-known silvicultural practices for forest production management are undergoing new modifications in the direction of the so-called close to nature forestry. The complexity of forestry is a product of the understanding of the necessary compromise between the traditional wood production functions, at the expense of giving priority to activities for protection of the traditional landscape, water, infrastructure, biodiversity, etc. At the regional and national level, some specific cultural and historical traditions play a significant role in this process, which are generally differentiated in the north-south direction. This inevitably complicates and increases the cost of forest operations. At the same time, silvicultural practices are finding it increasingly difficult to maintain a sustainable balance between the economic, social and environmental functions of forest areas, especially at the local level. To a large extent, the latter is due to the significant lack of specialized knowledge in the notions of modern society about the forest. The life of forest stands is long-term and exceeds several times that of humans. Therefore, the mass primary understanding of the forest is as a constant phenomenon. Only a few know that it is a heritage left by previous generations of foresters, which through today's forestry actions is transformed into an improved resource for future generations of people.

Let take, for example, the coniferous plantations created in Bulgaria and elsewhere in Europe in the post-war period. Currently, the vast majority of these plantations have achieved the expected goals in their creation. They are related to the provision of raw materials in demand on the market and specific tasks for soil protection and stopping erosion, improving the landscape, restoring damaged terrains, and more. As with all artificial and relatively homogeneous forest stands, they are more vulnerable to biotic and abiotic damage compared to indigenous forests. The longevity of trees and whole plantations in artificial forests is usually shorter and strongly depends on the possibilities for

investment in regular thinning. Therefore, in many places, the silvicultural practices concerning these man-made plantations are directed to the transformation of their composition and structure into possible natural ones. The latter leads to changes on a different scale for local areas. Some of them are too fast and incomprehensible to a wide part of the audience and are therefore highly criticized. In fact, according to current silvicultural concepts, the transformation of homogeneous coniferous man-made stands into heterogeneous, mixed forests guarantees the existence of viable forest stands for future generations.

Forestry relies on long-term goals and results. Achieving them requires a lot of expert knowledge of all processes during the life of forest trees, patience and consistency of decisions and actions in forests. A change in the desired state of forests, which is argued with new knowledge today, will take place after a long time, because the nature of the processes in forest ecosystems does not allow revolutionary leaps (Schutz, 1999). Therefore, forestry is inferior to almost all other areas of human activity, which can change almost simultaneously with the achievement of new knowledge, technologies and goals in the field.

For example, we can mention the silvicultural concepts regarding the management of coppice forests, which before WWII was very common in Southern and Eastern Europe, incl. in our country (Kevin O'Hara 2018 - Culture and silviculture). The needs for building material after the war determine the need to convert coppice forests into high ones. To this are added the environmental benefits of the high-stand forestry. But regardless of the investments that are made or not made with the various silvicultural techniques to transform coppice forests into stands of seed origin, they all take at least a few decades. During this time, both the environment and economic conditions change. Leaving the coppice forests to age in Bulgaria was aimed at their transformation, in parallel with the production of so-called mining supports due to the rapid development of the mining industry in the 60s of the 20th century. Today, there are potentially many of this assortment of Roundwood in these forests, but there is no demand for it because most of the mines are no longer working, or because the technologies in them are different. On the other hand, the economic result decreases with each additional year of postponement of regenerative felling in them due to the low increment of aging. In this case, the silvicultural practice remains consistent because it takes into account the importance of the environmental and social benefits of these stands, which in this form do not bring maximum income to owners.

In this sense, forestry is by nature a conservative activity. Conservatism is not just about preserving the traditional, the proven and the working. The definition of conservatism includes development and necessary change, but one that takes place reasonably, smoothly and slowly, and occurs in response to objective requirement. Forestry practice in its essence is against the changes that may disrupt the natural course and continuity in the development of the forest, but over time it has gradually adapted to public expectations. In other words, forestry theory is in harmony with the political concept of the founder of conservatism - Burke (1729-1797), according to which *conservatism is aimed at preserving historically proven institutions and traditions and ensuring social stability, while opposing the changes that can disrupt the natural course and continuity in the development of society.*

This inherent inability of forestry to change quickly and meet fast entirely new societal expectations in an understandable way is at the heart of contemporary critiques of forestry practice. It is fueled by people's objective fears of disruption of comfort in their living environment and standard of living as a result of climate change, as well as demographic or other social and economic reasons. This presupposes the rejection of the complex laws in the science and practice of forestry and their replacement by solving current short-term problems. usually of local origin. In fact, the latter is a

manifestation of populism, which is defined as: *influencing the opinion of the population through behavior and promises of measures in line with conjunctural sentiment*. According to Popov S. 2015, the populist trend in governance is more related to a change in the logic of public communication, heightened mass fears, distrust of complicated expert schemes in governance, the corruption condition and many others.

Populism does not have a strict theoretical platform, idea, program or predetermined outlines. In political practice, any platform can be populist if it manages to neutralize critical thinking about itself. Therefore, populism is rather a situational, temporary relationship between political speech and its supporters, whose interests, expectations, attitudes can vary widely. In populism, the reasoned, scientific and well-founded public conversation is lost. Populists make noise by presenting private cases as common practice.

Modern forestry is not just a science and practice. It has its own organizational structure through which it functions at national and European level. In a democracy, the covert, indirect, or overt actions of populists who blame forestry practitioners for changing parts of forests through logging is a major manifestation of populist hypocrisy. The message is simpler than the expert basis on which decisions are made in public institutions. A simple message may be impossible and primitive, but convincing. For example, against the background of climate problems, environmental fears are created such as:

1. Forests are destroyed irresponsibly and everywhere, with the assistance of foresters who have an economic interest in doing so.

What do the facts say?

Globally, there is still a trend to reduce the area of forests. This trend mainly affects the so-called "Developing countries". Every year, about 15 billion trees are cut down across the planet to make room for agricultural and urban land and other purposes. Mobile agriculture, overgrazing, ore mining and drilling account for more than half of deforestation. The rest is due to forest fires, some forest practices in areas where sustainable forest management is not yet established and, to a lesser extent, urbanization. In Malaysia and Indonesia for example, forests are being cut down to make room for palm oil production. In the Amazon, cattle breeding and soybean farms are key culprits for man-made fires in the wild jungle (FAO 2018).

But in parallel with these trends, there is an increase in forest areas in Europe, the countries of the Organization for Economic Cooperation (OECD), and even in Asia. In Europe, traditional silvicultural practices have been used historically for the longest time. The latest report on the state of forests included in the Forest Europe process (2020) shows a 9% increase in the area of forests in Europe (including Russia) over the last 30 years. In all countries involved in the Ministerial Conference process, sustainable forest management (SFM) has been a mandatory practice since 1993 (the second Ministerial Conference of the European Forest Process in Helsinki). The main indicators of the success of the SFM are 1. The increase of the volume stock by 50%, thus the biomass and the products of the Forests of Europe are the largest reservoirs of CO₂ on the continent. Every year, a new 155 million tonnes of CO₂ are fixed from the forests of the EU countries, which is over 10% of greenhouse gas emissions; 2. Another important indicator for the proper application of SFM is the ratio of felling wood as part of the annual increment, which for forests in Europe is on average 73%, and for Bulgaria - 52%.

Speaking of Bulgaria, we must emphasize that all forest average data have a steady trend of improvement over the last 30 years. In the period since 1990, the forested area of the country has

increased by more than 10% (400 thousand ha), the average age of forests has increased from 42 to 60 years, the total stock from 396 mln. cubic meters to 720 mln. cubic meters, the average volume stock per ha - from 122 to 184 cubic m/ha (compared to the European average - 169 cubic m/ ha) and the average annual increment per 1 ha from 3.3 to 3.5 cubic m/ ha/year. It can be rightly argued that modern silvicultural practices based on sustainable forest management principles lead to the improvement of the condition of forest resources wherever they are applied consistently, and foresters are the main actors in this creative process.

2. Another common statement of the populists is that forests are cut down everywhere, but not afforested.

What do the facts say?

In fact, civilizations have cut down so much overtime that what remains is about half the number of trees the Earth maintained before the rise of human civilization. Planting more trees is one way to compensate for deforestation happens. Recent reports from the United Nations Intergovernmental Panel on Climate Change (IPCC) state that in order to try to combat the climate crisis, among other efforts, fewer trees will have to be cut down globally. The question is where?

The global annual harvest of wood raw material according to FAO (Forest products-2018) is about 3.9 billion cubic meters. Roughly, half of this amount is used as fuel, and the other half is processed into durable products, based on wood. This amount of wood is approximately equal to the total annual increment of forests in the world. Demand and harvest of wood are still higher than the increment in Africa, America, and Asia. Only in Europe - the cradle of forestry, the quantities of harvested timber are higher than consumption (annual yield of about 550 million cubic meters and domestic consumption of about 500 million cubic meters (FAOstat 2019). This allows the countries of the Forest Europe process to be a net exporter of wood products. All forest areas in Europe are being regenerated. Natural, regeneration, which is the goal of the silvicultural activity, dominates. Artificial afforestation is carried out in one-third of the felled forest areas. European forests are an example of good governance and management globally. That is why they are at the heart of innovations in the forest sector related to cascading resource use, the circular economy, and green energy production. At the core of this activity within the EU are the Forestry Technology Platform (FBSTP), the European Forest Institute, and other forestry research and education centers. The potential reduction in timber harvest in Europe is not a solution to global problems. Foresters know that extensive forest management is causing problems with the vitality and resilience of stands, and reduced supply of raw materials on the world and the local market will lead to increased unsustainable practices (incl.illegal logging) for quick profits.

Bulgaria also fully satisfies the needs for wood raw material and is a net exporter of wood products (pulp, furniture, wood panels, pellets) and a relatively small net exporter of round wood (less than 180 thousand cubic meters/year). After 1990, the regeneration of forests in a natural way is over 80% by area.

Therefore, FGM as a concept and practice of European forestry should be applied on a global scale. Europe is working hard to control the forestry sector to increase its contribution to greening the economy and to set a good example for the rest of the world. This will remain temporary and populist if, at the same time, Europe and the countries with developed forest sectors do not invest enough to implement sustainable forest practices in areas of the world where they are not properly and fully implemented. This requires long-term action and conservatism in political decisions, not short-term populism. Given a predictable political environment, long-term challenges for the

forestry sector as a part of the economy and environment can be successfully addressed through silvicultural practices.

3. The most popular are the claims about the incompatibility of traditional forestry with biodiversity.

What do the facts say?

Eighty percent of the Earth's animals and plants live in forests. The first attempts at forest management in the Middle Ages were related to the provision of wildlife for hunting trips of the aristocracy. With the development of forestry science and the understanding of forests as complex ecosystems composed of many living organisms and their surrounding environment, it becomes clear that the vitality and benefits provided by forests are directly related to their biodiversity. Today, forests are the last refuge of wildlife on land. Therefore, the criteria for sustainable forest management include those that oblige forest managers to protect and restore all levels of natural biodiversity in forest areas. NGOs such as Pro Silva and EFI have a significant role to play in this direction, disseminating the ideas of environmentally friendly forest management, expanding the application of continuous cover forestry systems, adapting management to climate change and exchanging good forestry practices in almost all European countries. One quarter of Europe's forests are protected areas and another third are protected forests. Biodiversity can be maintained in healthy and vital forests. Thanks to the efforts of foresters in Europe, only about 3% of forests are affected by significant biotic disturbances and fires (State of Europe's Forests 2020).

The standards for forest certification and protection of those with High Conservation Value are being applied more and more comprehensively. For example, in Bulgaria, the area of certified forests according to international standards has increased from 16 to 56% in the last ten years alone. In 2015, 109 thousand ha of potential old-growth forests were declared protected. In 2020 this fact brings to the country a civil award of the European Commission for efforts to achieve the goals of Natura 2000. Bulgaria is proof that traditional forestry practices do not violate biodiversity. Natura 2000 areas in the forests of Europe are 15% and in Bulgaria, they exceed 56%, although more than ¾ of the forests in the country have been subject to active silvicultural impact during the past.

Available facts about the state of forests in Europe, incl. and in Bulgaria prove that the applied forest management systems up to now have preserved to a great extent the biodiversity in the forest territories. That is why I believe that the elaboration of the new EU Forest Strategy, once the EU Biodiversity Strategy has already been adopted, and not as a parallel activity, is a signal of a loss of public recognition of forestry as a result of environmental populism.

Unfortunately, as a result of such actions, public opinion is moving in the direction of limiting and seizing the functions of forestry experts. Hence the closure or downgrading of the state departments responsible for forests, media transfer of failures in the management of forest-related sectors to forestry practices, etc. Most often, such actions are unsustainable from the point of view of forestry science in the long run on the entire forestry wood chain.

What are the possible actions of the forestry community to oppose populism in forest policy?

1. The silvicultural community, represented by scientists and practitioners, must clearly define to politicians that the planet's forests are a limited resource, the reproduction of which is based on long-term silvicultural, conservative techniques;

2. It is clear that global wood consumption will continue to increase, so investment in research and innovation to improve the multifunctional model of forestry and adapt management to the climate crisis and all other challenges must be sharply increased. ;

3. Additional investments are needed to prevent and protect forests from fires and other climate risks worldwide;

4. The silvicultural community must actively work to introduce objective valuation of forest ecosystem benefits and to create more market justice for owners whose forests are subject to different regimes of additional restrictions to accepted silvicultural practices in certain areas.

5. Countries with a developed forest sector (within UNECE, Forest Europe, EU) should invest additional resources in implementing sustainable forest management in areas where it is insufficient, and not just apply additional restrictions on their own resources.

6. In the context of common policies in Europe, key actions should be an EU product. It is difficult to explain today why the EU has common policies and standards in the fields of agriculture, the environment, regional development, etc., and there is no specific forest program whose benefits do not depend on borders. The EU Forest Strategy is a soft policy instrument that is not sufficiently financially supported and therefore does not have the applicability expected by foresters. Complex, sustainable and balanced forestry, which satisfies many interests in an urbanized Europe and in other sensitive areas of the world, is only possible through balanced and fair subsidies.

Differences at regional and national level suggest diverse approaches. All of them can be based on more and accessible information about forests, such as complex systems. Therefore, equal dialogue and cooperation with all interested public groups is mandatory in order to bring the other sectors closer to the problems of forest management. apply additional constraints on their own resources.

A decrease in authority and position of classical forestry by populism will not diminish if there is no joint action by the international forestry community. The role of international and national professional organizations for forests (FAO, UNEP, ITTO, Forest Europe, Forest-based sector technology platform, European Forest Institute, EUSTAFOR, CEPF, etc.) for the development of sound common policies becomes crucial. Only in this way will conservative silvicultural practices survive and continue to develop. It has been historically proven that complex systems require solutions from many educated professionals. **The complexity of forestry is beneficial for the future of forests and the forestry profession.**

This is a strategic task of higher forestry education. Because, as Jack Westoby says, "*Forestry is not about the trees, it's about the people.*"

The opinions expressed are personal and do not involve any institution for which the author works.