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# War in Ukraine, and extensive forest damage in central Europe: Supplementary challenges for forests and timber or the beginning of a new era?

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## 1. Introduction

The ongoing war in Ukraine is causing immense human suffering, and has wide-reaching geostrategic, economic and social consequences, all over the world. The forest and timber sector is no exception. A very different development, the widespread and exceptional recent forest damage in central Europe, is also profoundly modifying how the sector thinks about the future. We seem to be facing challenges of a new type, which might have complex long term consequences, and which interact with each other as well as with the better known challenges associated with climate change, biodiversity loss and livelihoods. It is too soon for detailed objective analysis of the complex consequences of a fast-changing situation, but it is not too early to start thinking about what is happening, what the consequences might be and what should be done now. This short commentary note is not based on any specific scientific research or analysis, but draws on most recent reporting from many sources as well as the long-standing professional experience of the author in advising the forest sector. It is an attempt to see the situation more clearly – including the interactions between developments, over time and all over the world, and identify a few questions which may need answers over the coming months. The focus of the note is on the medium term, in Europe, and the questions are directed to the sector as a whole, but especially to decision makers – public and private – and those who advise them, including the scientific community.

## 2. Two new challenges

The recent serious **forest damage** in several countries,[1] caused by drought and insects, and attributed to climate change has led to huge sanitation fellings and increased wood supply, and now to questions about how to repair the damage and replace the forests, as well as how to define what is the sustainable harvest level in the medium term. In the short term, today's timber surplus (from sanitation fellings) will presumably be followed by a sharp fall in harvests over a large area. Decisions will be taken on future forest management: allow unassisted recovery with native species, regenerate with existing mixtures, choose more "climate adapted" species and approaches, etc. On the answers to these questions depends not only the future of the forest itself, but also the future of the industry which consumes the raw material which this forest supplies: short term expansion followed by contraction, changing trade patterns, consequences for local communities and livelihoods. Given the extent of the damage and of public interest in forests, jobs and climate issues, this discussion will involve all of society, not just forest specialists, and may well be intense and conflictual, unless the debate is handled sensitively.

The **war in Ukraine** also has multiple consequences for the forest sector. Most of the armed conflict, so far, has not taken place in forested areas, but this may change, and it is safe to assume that rural – perhaps even urban - populations, faced with energy shortages will increase fuelwood use, possibly to unsustainable levels, if the war continues. Furthermore, Ukraine is normally an exporter of logs and sawnwood, but these exports are not possible at present, because of military activities, notably in ports and the destruction of infrastructure. Timber and products from Russia and Belarus (both exporters, especially Russia, which is one of the largest exporters in the world for some products) have been declared "conflict timber[2]" by both PEFC and FSC, and are covered by sanctions legislation. So they will not be exported, at least not to western Europe and North America, although they might find other destinations, for instance China. What will be the consequences of the war itself and of the resulting trade measures for the forest resources of Ukraine, Belarus and Russia, and for international trade in roundwood, forest products and further processed products?

These challenges are appearing in a world already marked by several major new developments, including a post pandemic commodity price boom (also for forest products), supply chain disruptions and increasing concern about security of supply of energy, food and many other things, alongside the existing intense concern about sustainability, biodiversity, climate change, growth and equity.

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[1] At least Germany, Slovakia and Czechia, but also others.

[2] The term is also being used for timber originating in occupied areas of Ukraine.

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Taken together, the forest sector in Europe – like many other parts of society and the economy, all over the world - is facing a period of heightened instability and new interactions, with consequences which are difficult to foresee. The outlook for the forest and timber sector is outlined below. At the broader scale, the context will be one of slow growth, as the post pandemic recovery is slowed, in Europe at least, by the consequences of war and the resulting sanctions and embargos. Many industries are trying to reduce the vulnerability of their supply chains to disruptions arising in Russia or Ukraine, even China, and to diversify their sources of supply. Inflation is rising, as are interest rates. A humanitarian crisis is emerging in the developing world as many countries are very dependent on Russian and/or Ukrainian energy (oil, gas) or food (wheat, sunflower oil). Many trade flows, to and from Russia, have been disrupted by western sanctions. In general, there is a clear trend away from globalisation, and an increased priority given to security of supply, both probably leading to higher costs overall.

In this complex and volatile situation, it is all the more important to take a holistic view, and make the links between apparently unrelated trends, looking beyond the short term, to medium and long term implications, for forest management, for trade in forest products and for forest policy. This brief commentary is an attempt to contribute some ideas to a wider discussion.

## 3. Risks and opportunities

Objective and transparent analysis of the situation, trends and medium term outlook is urgently needed – and is under way in academic and commercial circles. However, it is already possible to tentatively identify some risks, and even some opportunities.

The risks for the forest and timber sector, especially in Europe, of the emerging trends could include:

- Widespread forest degradation due to the drought and insect damage;
- Much increased carbon emissions in the damaged areas, possibly threatening the overall positive carbon balance of forests in some countries;
- Forest degradation (physical damage, fuelwood over-harvesting) and rural poverty in forest areas affected by war;
- Reduced demand for forest products, because of slower economic growth
- Higher manufacturing costs for energy intensive forest products
- Threatened livelihoods in countries affected by forest damage and/or by war/sanctions
- Lower levels of sustainable harvest in some areas, due to forest degradation.
- Unavailability of log imports from Russia and Ukraine due to the war, the certifying organisations' declaration that Russian and Belarus wood is "conflict timber" and the ban on log exports by Russia effective from January 2022. This is leading to raw material supply problems for wood processing industries in Europe.
- The raw material shortages could cause major changes to world trade patterns and possibly unforeseen shortages in areas not directly affected. If the Russian export ban is fully implemented[3] (it is under discussion at the WTO), forest industries in China and Finland would be deprived of a significant part of their raw material, leading them to look elsewhere, possibly depriving other industries of their raw material and raising prices overall.[4]
- Demand for wood-derived energy, driven both by physical shortages of fossil fuels (due to trade measures) and higher prices will put pressure on the supply of industrial wood, at least in some areas.
- Shortages of wood raw material and products (lumber, transport pallets) on European markets as imports from Ukraine, Belarus and Russia are cut off.[5]
- Damaged forest industry capacity in Ukraine, and reduced harvesting capacity due not only to military operations, but also to shortages of labour and fuel.
- Much reduced investment in forest industries in Russia, and closure (permanent or temporary) of western-owned facilities in Russia.[6]
- Higher prices for forest products make them less competitive, including as substitutes for fossil-rich materials such as concrete, steel and textile fibres. The latter will also be negatively affected, notably by higher energy prices, so the net effect on the competitiveness of forest products is far from clear.
- Limited potential for substitution of "fossil-intensive" goods, because of supply constraints for sustainably produced wood.
- Supply chain problems[7] – for forest products, as well as for other products, because of the likely shortage of pallets. FEFPEB, the pallet industry association, says that it expects the imminent tightening of wood supply, with some countries reportedly sourcing up to 25% of their pallet and packaging timber from Ukraine, Russia, and Belarus.

There are also some opportunities:

- Create more climate resilient forests in damaged areas (applying adaptive management).
- Develop shorter supply chains, reducing dependence on remote supplies of raw material.
- Traditional major actors on forest products markets (i.e. those outside the regions affected by forest damage, sanctions and war) would have favourable market conditions, with increased demand, higher prices and fewer competitors. This includes Canada, US South, Brazil etc. but also, in Europe, the Nordic countries (assuming they can overcome their raw material supply problems), the maritime pine producers and the Iberian eucalyptus plantations.
- For biodiversity, it seems now highly unlikely that the E40 transportation waterway[8] could be completed in the foreseeable future. This would present an opportunity to develop the region of Polesia for nature tourism and sustainable integrated management of the region as a whole.

## 4. Some questions for decision makers, their advisers and the scientific community

Some questions emerge from the challenges outlined above, for decision makers, public and private, their advisers and the scientific community. Answering these questions properly would imply that these three groups work together to create a common vision of the possible outlook. There are, of course many questions, but I would suggest the following as the most urgent, and which would benefit from a wide

[3] A major objective of the ban is to stimulate investment in wood processing capacity in Russia. However, with sanctions, it will be very hard to raise capital for these investments on international markets. This might lead to log oversupply in Russia or to loosening of the export ban.

[4] An example is the steep rise in French exports of beech logs to China, and resulting higher prices for domestic consumers.

[5] According to TTJ, "The trade ban will cause serious consequences for European market supply. According to official statistics, slightly less than 10% of the sawn softwood consumed in Europe in 2021 originated from Russia, Belarus and Ukraine. In the hardwood sector, oak goods originating from Ukraine made up a significant quantity. Shortages are therefore expected".

[6] This has already taken place e.g. Stora Enso

[7] An exacerbating factor is that many truck drivers all over Europe are Ukrainian and have returned home, which may exacerbate supply chain problems.

[8] Gdansk – Warsaw – Belarus - Chernobyl – Kyiv – Kherson, linking existing rivers with many new dams and locks and wider waterways, thus threatening the wetlands and forests of Polesia.

ranging, transparent and international debate. No doubt other questions will emerge as the discussion progresses

- How to restore the damaged forests in central Europe in a climate resilient way, with public support[9]?
- How to ensure a secure and sustainable raw material supply for forest industries in central Europe, threatened by shortages due to forest damage and war/sanctions?
- Do the likely shortages of forest products in Europe due to the war and sanctions justify increased domestic harvesting, even the relaxing of some environmental restrictions? Are there trade-offs between energy and food security and environmental and climate change policy? How does this major emerging policy debate play out for the forests and timber sector?
- Will the urgency of improving security of energy supply bring about higher priority to wood energy, possibly at the expense of other forest functions? Could wood energy help the transition to renewable energies, while improving energy security in the short term?
- What will be the consequences of these disruptions for European and world forest products trade? Will the consequences be temporary or permanent?
- Do the changed circumstances justify modifications to or even 180-degree turns in forest-related policies, which have sometimes been formulated on the basis of assumptions which may no longer be valid?
- How can sectoral business and policy strategies relating to forests and timber be updated or new ones be initiated? Which issues are the most urgent, and where should the focus be? What are the consequences for process and governance?

## 5. Conclusions

There is an urgent need for objective and comprehensive information and balanced analysis, as well as for a common platform of basic facts and analysis on which individual countries, enterprises or other actors can decide their own strategies, and scientists can decide on their research priorities. Given the nature of the developments, it is unlikely that existing, often fragmented, statistical and analytical processes will provide adequate information in time to be useful for policy makers. However, international forest sector organisations based in Europe, notably UNECE/FAO and Forest Europe, as well as think tanks like EFI, could play a role by contributing information and analysis, by improving transparency and by convening a forum for thinking-outside-the-box discussions, focused on the forest and timber sector in Europe, but taking account of other sectors and other regions.

## Declaration of Competing Interest

None.

[9] Public support for solutions proposed by the forest community is not guaranteed. For instance, in France, a major debate is taking place over how the covid recovery funds for forestry are being used – mostly to plant Douglas fir monocultures, an outcome which is criticised by environmentalists.