



Forest Policy and Economics xx (2004) xxx–xxx

**Forest Policy
and
Economics**

www.elsevier.com/locate/forpol

Discussion

Forestry in the Ukraine: the road ahead? Reply

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Received 20 June 2003; accepted 16 January 2004

This is an appropriate time to consider the future of forestry in the Ukraine since economic reforms are perhaps at their most “defining crossroad since winning independence from the Soviet Union 12 years ago” (Feduschak, 2003, see also Siedenberg and Hoffman, 1999), and many of Ukraine’s neighbours have recently (May 2004) joined an expanded European Union. Polyakov and Sydor’s (2004, hereafter P&S) comments on our earlier paper (Nijnik and van Kooten, 2000) provide an interesting perspective on the issue of reform as it applies to forestry. In our response to their comments, we consider first the most important point made by P&S, and the one with which we take the greatest issue, namely, their stance that Ukraine’s forests are better protected under a Soviet-style command and control system than under a market system. We then consider more minor points of disagreement and end with some concluding observations.

1. Command and control versus the market

One of the main arguments that P&S use to support their view that public ownership and regulation are preferable to markets as a means of bringing about sustainable forest management is that forest cover declined between 1796 and 1914 when forests were privately owned, but increased during the Communist period 1946–1996, and that the increase in the latter period exceeded, in relative terms, that of most European market economies. We do not believe that such a comparison is really relevant, especially given the paucity of data and the fact that exploitation in the earlier period probably occurred because, at the time, the socially optimal level of forest holdings was too large (as was the case in most other western countries). Indeed, in most capitalist countries, forest exploitation during the 1796–1914 period was followed by an expansion of forest area (see Wilson et al., 1998) as countries adjusted land uses to changing economic circumstances, without state intervention. The fact that forest area expanded at a much later period in the Ukraine (as P&S argue) probably indicates that the Ukrainian forest sector adjustment was non-optimal (response to new economic circumstances was slower) compared to that in other countries.

P&S also argue that, despite the devastation of the economy as a result of WWII and resulting pressure to

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exploit forests to aid in economic restoration, central planning prevented exploitation of forests. Incredibly, they use area and volume data that begin in 1961 (see P&S' Table 1) to 'refute' our statement that harvest exceeded mean annual increment (i.e., average annual growth¹) by 2–2.5 m³/ha during the period 1945–1965. P&S go further in a footnote, arguing that, when harvest exceeds mean annual increment, this does not mean that harvest exceeds growth. Of course, this is true by definition. Indeed, setting the annual allowable cut to the mean annual increment ensures that forestry is a sustainable activity.²

P&S continue making their case by using data from their Table 2 to compare France, West Germany and Poland (also under communism during the period) with the Ukraine. They then claim, the "Ukraine had the lowest level of removals and the highest increase of both forest area and growing stock (investment in timber capital)". That this comparison holds is unclear from P&S Table 2 (at least based on the version of the table we obtained). Further, the data on which they base their observation are for forests managed by the state and exclude other stakeholders, e.g. forestland in agricultural enterprises, which currently represents 26% of Ukrainian forests (EFI, 2003). Finally, such a comparison is totally irrelevant as the comparisons are absolute and ignore the socially optimal forest level for each country and the approach path to that optimum, as noted above. There is one notable exception: Ukraine's harvests per hectare were well below those of comparable countries, likely for the very reasons we pointed out in our original paper.

P&S appear to view the State as an instrument only for good, rather than as an institution often comprised of politicians and civil servants who act in their own self interest. Today, Ukraine is mentioned as being among the most corrupt states (World Bank, 2001; Transparency International, 2003; Helsinki Commission, 2004), where governance failure substantially retards economic growth, restricts economic freedom, and adds to social distortions and poverty (Freedom

House, 2001). The country's new oligarchs are known to undermine the privatization program and appropriate state resources by stripping the assets of banks and enterprises (Pidluska, 2004; International Herald Tribune, 2001; Financial Times, 2001; Shelley, 1999), while its bureaucrats often redirect wealth and resources to themselves (Kalman and Mudry, 2003; Nijnik and Oskam, 2004). The underground economy has been recognized as booming, accounting for more than 70% of enterprises and half of GDP in 1998 (Shelley, 1999). Although quantitative data are unavailable, there is probably an underground business in forestry, similar to that of other resource extractive sectors, because such factors as personal relationships and bribes largely determine timber production (Krot et al., 2000, pp. 105, 120). Indeed, illegal timber harvesting in the Carpathians has expanded enormously over the transition (Gensiruk, 1999; Komendar, 2001).

Perhaps the failed transition to a market economy in the Ukraine leads P&S to conclude that the Ukraine's forestry sector is better under command and control than it is under a market economy. However, they appear to mistake the transitional problems that the country needs to overcome with those of a market economy. In this sense, some of the concerns raised by the authors are not entirely unfounded. Clearly, if forestlands, with harvestable stands of timber are privatized, they are likely to be mined as quickly as possible because of the low returns to holding trees compared to the high real rates of return elsewhere in the economy. However, this does not imply that all forest lands need to remain in the public domain and that, if they do remain public property, forest management, silviculture and other forest activities cannot be privatized. Nor does public ownership preclude competitive log markets and wood product markets.

Perhaps P&S would accept some privatization, but their stance is radically different from ours. While they view the previous communist regime as benevolent and pro-environment, we point to the fact that the current regime is largely a continuation of what existed before. Their data fail to convince us otherwise; rather, as argued above, their data only confirm our conclusions.³ We continue to maintain

¹ Also called annual total average increment, see Nilsson and Shvidenko (1999).

² For statistics on current and mean increments of tree stands in the Ukraine, see, e.g., Ministry of Forestry (1987), while for research publication see Gensiruk et al. (1998).

³ Concerning development and the environment under communism, see, e.g., Vovk (2003).

that forests were depleted during much of the time under the Soviet regime because forest exploitation was seen as a means to industrialism—an engine of growth.

2. Specific issues

Our purpose in the previous paper was to present a picture of the Ukraine's forestry as it really was. Reunification after WWII, when major wooded lands were returned to the Ukraine, has resulted in an increase in the share of wooded area. Since the official statistics then showed this higher proportion of forest area, it led to greater timber harvesting. Reunification resulted in inaccurate official records of the forest inventory. Forest exploitation in the Ukraine during the 1950s and 1960s only looks rather good, if one ignores regional aspects of timber harvesting. For a country as big as the Ukraine (largest in Europe excluding Russia), regional analysis is particularly important, and such an analysis indicates that, in the Polissja and especially in the Carpathian Mountains, timber cutting in those years exceeded sustainable norms by a factor of two or more (Maksymiv et al., 2003; Gensiruk, 1992, p. 191). Forests were heavily harvested until the 1970s, especially in the Western Ukraine. Whilst highly productive and largely natural forests were mined in that area, forest plantations were being established in the Steppe and Wooded Steppe zones.

Though tree-planting and all attendant silvicultural operations were prescribed from the top-down by the Ukraine's forestry legislation, the prescriptions were often unreasonable from an economic and biological (i.e. sustainability) standpoint. It is true that there were investments in tree planting in the post-war period, with some 70,000 ha planted to trees annually (Gensiruk and Nizhnik, 1995), but that also occurred with great success in periods prior to communism (Gensiruk, 1992; Solovij, 2000), contrary to suggestions by P&S. But, as indicated above, the conditions of 1796, or even 1936, do not apply. Today, efficiency concerns are increasingly important, while international environmental groups, such as the Forest Stewardship Council, through its forest certification program, have enormous influence on the

way private landowners manage forests in a sustainable fashion.

If the Ukraine had practised sustainable forestry during the post-war period, as claimed by P&S, we would expect a more even distribution of stand ages. From P&S' Table 1, approximately 50,000 ha of forestland have been added to the stock of forest each year since 1965 (see Gensiruk and Nizhnik, 1995). If trees had been harvested sustainably in the same period, then the age structure should be only slightly skewed to the lower age categories. According to our Table 2, however, in the early 1990s, young growth comprised 43.7% of the stock of forestland, while medium-aged, ripening and mature trees constituted 38.7%, 10.7% and 6.8%, respectively. Currently, according to the [Official Report of Forestry in Ukraine \(2003\)](#), young growth comprises 32% of the stock, medium aged trees 44%, and ripening and mature trees 13% and 11%, respectively. This suggests that, while there has been some replanting, harvests in the past have exceeded annual growth, indicating that excessive exploitation occurred during the decades before the 1990s. The current low rate of annual removals per hectare is likely related to this, but it also indicates that harvesting of immature stands might also be occurring.

3. Conclusions

Despite their attempt to convince otherwise, we cannot agree with P&S' conclusion that "Ukrainian forest management under a socialist centrally planned economy did a good job in providing environmental benefits from the forest to the citizens, as well as in preserving and multiplying forest resources." At least we cannot agree with it if they mean that a socialist centrally planned economy did a good job relative to the alternative. We continue to maintain that forest resources were excessively exploited and that inadequate attention was paid to silvicultural investments, despite official rhetoric to the contrary. While there were efforts at reforestation and afforestation, especially after the mid-1960s when it became increasingly apparent that continued depletion of forest resources was no longer possible because of its high externality costs, incentives for forest management were ill conceived and, with continuing and expand-

ing corruption throughout the economy, official policy and actual practice (e.g., untrustworthy statistics, illegal harvests) frequently diverged. The data provided by P&S certainly fail to convince us to change our prior views.

We also disagree with the conclusion that a transition to a democratic market economy “is dependent on the sustainable management of forests and other natural resources.” If that is the case, Ukrainians may wait a long time before they can join other Europeans in enjoying the benefits that a democratic market economy offers.

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