The cost of putting the environment on the backburner

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The world’s biodiversity and climate crises require ambitious and consistent policy solutions. Such policies could include the EU’s net zero emission target by 2050, and its Biodiversity Strategy aiming for 30% protected and 10% strictly protected areas. But as we have seen historically, whenever shorter-term EU economic concerns intensify, environmental policies are put on hold or reversed; and every time the environment is relegated to the back seat, it will only become harder in the long-term to manage associated costs and reverse damages. The current EU policy reaction – post-COVID, and in facing the economic downturn and sense of crisis associated with the Russia-Ukraine war – is no different. Our environmental crises remain urgent, and addressing them through erratic and overly reactionary short-term stop-and-go policies is not an appropriate strategy.

The context

In recent years, food prices have fluctuated wildly (Fig.1). In 2020, during the first two months of the pandemic, they crashed. But with the unprecedented fiscal and monetary stimulus policies that followed, and under the influence of supply chain bottlenecks, prices experienced inflation far beyond their pre-pandemic levels – as did several forest products. Then, after Russia’s invasion of Ukraine on 24 February 2022, food prices exploded: Ukraine is a top crop producer, and exporter of oilseeds and grains; Russia has large exports of grains, fertilizer—and fossil fuels. Nevertheless, around mid-2022 world-market prices started to recede — dramatically so for vegetable oils and cereals. The same holds true for other commodity prices, such as energy and forest products. At present (2023-Q2), all food prices remain above their 2014-16 average, yet all but sugar are at or below the levels seen before Russia invaded Ukraine (Fig.1).
A few points on food price trends are particularly noteworthy here. First, the initial impetus for rising food prices came not only from COVID-19, but at least as much from economic policy responses to the pandemic. Second, most food price hikes occurred before the Russian invasion, and wartime price hikes have gradually evaporated since. Elevated world food prices can thus by now hardly be blamed on the Russian war, which caused only a temporary spike. Third, if consumer food prices in wealthier economies have not (yet) come down proportionally with strongly receding world market prices, this is because inflation and retailer profits have been sticky.

Within this context, farmers around the world have obviously noted price changes, when deciding on how many crops to plant. But equally striking, policy agendas have shifted in ways that have reinforced price trends in incentivizing intensified production and extraction. Emergent supply-demand imbalances in food and energy markets have made policymakers susceptible to “short-termism”, in order to address their constituencies’ (and voters’) concerns over increasing energy and food costs. However, as we will argue here, myopic policy reversals or policy delays could hamper long-run public welfare when short-term decisions around biodiversity protection come to cause impactful or irreversible damages, and accumulation of future costs and welfare losses.

**Intricate land-use linkages**

Agriculture occupies about half of the world’s habitable land. Hence, policy decisions and actions governing food production tend to strongly impact on biodiversity conservation, through both land-use change and intensity. High agricultural commodity prices make it more profitable in the short-term to intensify management on less productive lands (e.g. fallows). It simultaneously also becomes desirable to then roll back actions directed at mitigating climate change, nutrient leakage and biodiversity loss.

Food and energy prices are tightly related: fossil fuels are used as inputs in crop production, e.g., for irrigation, fertilizer production, and fuel for machinery. Yet, food and energy crops also directly compete for land. Rising energy prices will entice farmers to shift away from food crops towards corn or rape seed, which have biofuel potential. Thus, higher energy prices also tend to raise food and fodder prices. This highlights the need for broader policy coordination around the agri-food sector.

Conversely, higher incentives for intensified land management may also sometimes enhance the provision of ecosystem services; for example, management of previously abandoned Mediterranean forests could contribute to higher resilience from forest wildfires. Hikes in crop prices may also
enhance the heterogeneity of landscape mosaics, which can boost recreational and cultural services, as well as biodiversity protection.8,9

**Policy turnarounds**

It is not only markets but also policies that react to economic crises: spillover effects on environmental policies are well-documented. Evidence shows for instance delays in policy progression, and even dismantling of previously adopted environmental policies after the financial crisis of 2008.10 Substantial delays and modifications included the large efforts under the Water Framework Directive11. Changes in focus led to waning policy ambitions12. Policies for biodiversity protection and nature restoration policies follow similar patterns. In 2007/08, food price increases were used as key argument for cancelling fallow land requirements under the Common Agricultural Policy (CAP), in a similar downgrading of environmental vis-à-vis production concerns.13 These examples show precedent in the EU of postponing, and even rolling back environmental policies when economic crises strike, putting commodity supplies and price stability at stake.

History repeated itself in 2022: food price hikes caused the EC to allow fallows to be reconverted into production, also delaying requirements for crop rotation.14 Thus, during previous and current crises, agri-environmental concerns are pushed back – this time against food security and economic impacts for consumers in the face of acute geopolitical concerns.

For forests, similar recent policy turnarounds have been noted, such as when debating the EU’s new Nature Restoration Law.15 The law currently meets strong resistance in the European Parliament from groups often representing the primary production sectors agriculture and forestry.16 In the Danish public debate, the temporary food crisis has been used to challenge longer-term afforestation ambitions.17 When energy prices drive up prices on forest biomass, wood extraction incentives increase, feeding discourses against protecting habitats for forest biodiversity.18 The Polish government, worried about energy costs, recently eased regulations to collect firewood.19 Yet, we know that accelerated energetic uses of wood are incompatible with fighting the climate crisis20 and forest biodiversity loss.21 If this trend is left unchecked, it will result in a further reduction of the amount of retained deadwood and old decaying trees providing crucial habitats – which are already in severe shortage in managed forests.22 As the European Scientific Advisory Board on Climate Change points out, this move runs counter to both long-term climate policy and nature restoration goals.23 Similarly, new EU regulation seeking to pave the way for faster investments and implementation of (on- and off-shore) renewable energy infrastructures have raised concerns that long-term biodiversity goals become jeopardized in the process.24

To the extent that the EU and member state governments postpone or dismantle climate or biodiversity policies and instead prioritize short-term food and energy supply needs, they risk irreversible losses and escalating costs in pursuing long-term commitments to reduce greenhouse gas (GHG) emissions and conserve biodiversity. Recent advances in economics highlight the need for current climate policies to better internalize tail-end risks for extreme outcomes, which so far penetrate little into mainstream economics:25,26 Delaying and curbing today’s action towards the Paris Agreement implies risking dramatically higher costs tomorrow: GHG emissions accumulate to more and more dangerous levels in the atmosphere, and we liquefy stocks of natural capital instead of enhancing biodiversity protections. Furthermore, once habitats and species are lost, in Europe just as elsewhere27, these losses are often irreversible in practical terms, so we sacrifice non-substitutable existence values. Hence, delaying or reversing climate or biodiversity policies will trigger practically irreversible welfare losses for current and future generations28.

**How can we rationalize policies?**

To the extent that we put forest protection on the backburner so that we can race to meet immediate energy and food production needs, we may come to shoot ourselves in the foot: the resultant losses of habitats and biodiversity may be irre-
versible within normal time horizons. Agriculture also depends on biodiversity, so biodiversity loss is threatening global food security, and thus the livelihoods of millions of people.29 Lost carbon stocks from eliminated biomass may also take longer time and escalated costs to restore.

We cannot blame markets for reacting to short-term supply shortfalls by raising prices, incentivizing landowners to produce and extract more commodities: that is precisely what markets are supposed to do. However, we can blame policies when they further escalate price-induced opportunistic production pressures, rather than actively mitigating their negative environmental effects.

Ultimately, the concern is that policymakers see environmental policies as something to pursue only when there is the perceived luxury to be able to do so, and when times get tough, they can simply be delayed or even reversed. While such stop-and-go approaches to environmental policies may serve some vested stakeholder interests, from a societal point of view they remain irrational: by ignoring irreversibilities and cost escalations, this erratic policy path inflicts long-term costs upon us all, by endangering long-term environmental goals. If the world continues to become a more unpredictable place both environmentally and politically, the asymmetrical costs of our hesitant forth-and-back policies will likely only multiply in the future.

Notably, to fight inflating commodity prices in a win-win manner, some more structural solutions do also exist. For instance, Baltic Sea countries recently agreed to increase their offshore wind power capacity to 20 GW by 2030, thus combing climate ambitions with enhanced geopolitical resilience.30 Quicker replacement of fossil fuel-based with electric technologies can also jointly mitigate carbon emissions and price pressures.31 For food prices, accelerating a transition to low-meat diets to curtail high-footprint demand has been suggested by the EAT Lancet Commission.32

As for biodiversity, it is imperative to avoid policy decisions with hard-to-reverse impacts on nature, biodiversity and climate mitigation. Recently, researchers have proposed an independent European Biodiversity Council, advising on how to consistently meet binding targets for biodiversity commitments. It could function as an analogue to the European Scientific Advisory Board on Climate Change. Yet, new EU climate-cum-production policies also need to be holistically screened for underlying global land-use tradeoffs: the EC’s Fit-for-55 plan was recently criticized for sacrificing carbon storage and biodiversity for extensive bioenergy, by exporting land-use pressures abroad;33 similar global arguments about trade-induced leakage effects on non-EU wood production have been made for implementing the EU Biodiversity Strategy.34

Research and applied knowledge should also play a stronger role in informing complex policy choices. Evidence-based, robust policies with a long-term and holistic vision are particularly needed to withstand accelerated global market fluctuations, triggering ever-shifting political priorities.

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