Latin America and India are the first crop-growing regions to be 'at risk' of higher prices and a shortage of supply of fertilizer resulting from the war in Ukraine, according to Dutch banking and financial services company Rabobank.

While the war will not have an immediate impact on food prices and food production, there could be heavy potential disruption in a few month's time.

"Currently, the fertilizer market in the northern hemisphere is relatively quiet," Rabobank said in a report.

"All transoceanic flows for the upcoming northern hemisphere spring season have already taken place, and movements are now primarily at the local level: from the import ports and/or domestic production locations to farm fields."

However, it said that there are risks for India and Latin America, especially for the latter, which it says is "highly exposed".

"Potash availability for soybean production might be compromised, as Belarus and Russia account for 40% of the world’s potash production and exports," Rabobank said.

The good news is that Latin American markets don’t need fertilizer in their fields until September – which means fertilizers need to arrive at Brazilian ports in July-August and there are still three months to work out a solution. A careful assessment of the 2023 cropping season, however, is necessary.

The Impact of the War on Nitrogen and Potash

There are three types of fertilizers that farmers must apply to ensure crop growth: nitrogen (N), phosphate (P), and potash (K). All three of these fertilizers are sold in global markets, and their production is geographically concentrated and dominated by a handful of miners (P and K) and a somewhat larger group of chemical companies (N).

Russia and Belarus are a key mining and production region for potash, and Russia is a relevant source of nitrogen. In addition to its role as a major producer of these two fertilizers, Russia also is a key supplier of the main raw material for nitrogen fertilizer: natural gas.

This is mainly relevant for the EU and India, as their domestic nitrogen production depends

highly on imported natural gas.

Russia's war in Ukraine and the subsequent sanctions have instantly cut off global markets from Russian and Ukrainian nitrogen and potash fertilizers.

This is likely to result in an imbalance of supply and demand, with tightening global N and K supplies leading to upward pressure on prices and increased price volatility. This is already visible in today's markets.

After a substantial price decline in global markets in the first two months of 2022, N prices are on the rise again. In contrast, K prices have not fallen since the start of 2022.

This is mainly for two reasons. First, the K market is supplied by only three major miners that sell directly to importers and thus have maximum control over price dynamics. Second, the combined K exports of Russia and Belarus amount to 40% of total global exports, and Belarus has been sanctioned since last year in response to the country's suppression of protests.

Even before the war, Russia's threat to cut gas supplies to Europe in the fall of 2021 contributed to fertilizer cost price increases and uncertainty in the fertilizer market. Fertilizer prices tripled in the second half of 2021.

The supply chain could absorb this fertilizer price increase because it coincided with a huge increase in agricultural commodity prices.

Thus, while fertilizer prices can rise in response to increasing food prices, the current high fertilizer prices and supply shortage were not the cause of the increase in food prices.

In fact, fertilizer manufacturers will be incentivized by high fertilizer prices to increase output. And global fertilizer traders will adjust/overhaul trade flows to bring the increased supply to the most critical demand areas (mainly Latin America for now).