



### Indonesia Market Watch

January 2023

Impact of fertiliser price rise on agricultural productivity and food security in Indonesia

2<sup>nd</sup> edition

The Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture (PRISMA) is a development partnership between the Government of Australia (Department of Foreign Affairs and Trade, DFAT) and the Government of Indonesia (Bappenas).





#### **Summary**



Fertiliser prices have risen sharply since the beginning of the Russia-Ukraine conflict, especially from July to October, and show no sign of leveling out or going down.

Farmers are feeling the effects of the increased price and are altering their use of fertilisers during the current agricultural season (November – February).

Farmers commonly over-apply fertilisers in Indonesia and a moderate reduction in use may not lead to a significant reduction in crop or horticultural production in the country.<sup>1</sup>

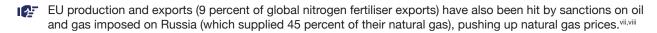
If commodity prices do not keep pace with fertiliser costs, farmer incomes will be impacted, reducing agricultural budgets for the next season (April – June). Thus, the effects may be felt more severely next season.

#### **Background**

After water and seeds, fertiliser is the most important agricultural input for smallholder farmers. PRISMA is working with fertiliser companies to encourage farmers to use good quality fertilisers at the correct dosage to increase productivity.

Fertiliser, its ingredients, and the fuel that goes into manufacturing and transporting it, are internationally traded commodities, and therefore prices are subject to fluctuations. In addition to an already volatile market due to the impact of COVID-19 and severe restrictions on fertiliser exports by China, "i." the conflict between Russia and Ukraine has impacted global fertiliser supply and prices because:





Over 25 countries have imposed fertiliser and/or food export bans or restrictions (Indonesia is not among them).ix

For more information on the overuse of fertilisers please refer to the 1st edition of the Indonesian Market Watch on fertiliser prices (April 2022).

<sup>&</sup>quot; https://www.fastmarkets.com/chinas-fertiliser-exports-ban-raises-worries-from-global-markets

<sup>#</sup> https://www.spglobal.com/commodityinsights/en/market-insights/blogs/agriculture/011922-fertiliser-costs-natural-gas-prices

iv https://www.worldstopexports.com/top-fertilisers-exports-by-country/

https://en.wikipedia.org/wiki/International\_sanctions\_during\_the\_2022\_Russian\_invasion\_of\_Ukraine#:~:text=Following%20Russia's%20invasion%20of%20Ukraine,triggering%20the%202022%20Russian%20financial

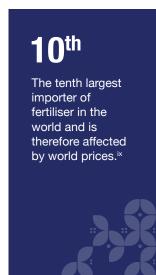
vi https://thediplomat.com/2022/09/indonesia-still-considering-purchases-of-russian-oil-minister-says/

vii https://www.fertiliserseurope.com/fertilisers-in-europe/facts-figures/

wiii https://www.icis.com/explore/resources/news/2022/08/01/10790865/europe-continues-to-sanction-russian-fertilisers-despite-local-production-issues/

https://www.worldbank.org/en/news/statement/2022/07/15/joint-statement-by-the-heads-of-the-food-and-agriculture-organization-international-monetary-fund-world-bank-group-world

Indonesian fertiliser price has been impacted by the conflict and other factors because Indonesia is:





fertiliser imports with around 23 percent of its imports originating from these two countries.x





of around half (targeting mainly staple crops), but recently the subsidy budget which in effect will reduce overall

Fertiliser is the second largest variable cost after labour on Indonesian smallholder farmers, accounting for 14 percent of variable costs for rice and 18 percent for maize.xii



## Farmer and retailer response to price rises



Most input retailers are able to stock up at the higher prices either because they have sufficient working capital, or good terms of trade with their suppliers. Fertiliser is therefore available to farmers. Anecdotally, some retailers in Papua and West Papua were unable to afford to stock at higher prices, or reduced purchase of crop protection products to be able to afford fertilisers. However, most horticultural products in Papua do not use fertiliser or crop protection products. Rice and maize are not main staple crops in Papua or West Papua.



58 percent of farmers perceived an increase in prices – especially in East Java (70 percent) who are more likely to use it on their rice and maize crops. 60 percent of farmers said fertiliser was less affordable.



In response to the price increases, 41 percent of farmers intend to reduce the application rate (especially in NTB, 62 percent), and 24 percent intend to supplement with other fertilisers such as organic compost and subsidised fertiliser.



Farmers are mostly optimistic about productivity and prices for this season. If fertiliser prices remain high next season, most farmers intend to continue to plant the same area and continue to apply fertiliser as before, but a significant minority will switch to cheaper or/and subsidised fertilisers, and blend with organic fertilisers.

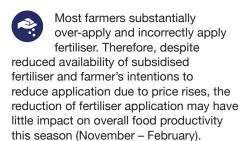


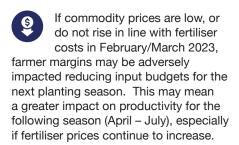
If farmer incomes are impacted this season, 68 percent said it would affect their input budget for next season, and 56 percent said their household expenditure would be impacted.

# Outlook for production and food security



The BULOG (state-owned commodities buyer) is predicting an overall 2.3 percent increase in rice production for 2022.







Information in this section is derived from preliminary findings from a PRISMA survey of 60 smallholders in Central Java, East Java and NTB, and an ongoing PRISMA survey of input retailers.

<sup>\*</sup>v https://en.antaranews.com/news/255289/statistics-indonesia-projects-rice-production-up-229-percent-in-2022







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