

# Impacts of High Fertiliser Prices on Smallholder Farmers in the Indo-Pacific

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# Objectives

1. An overview of fertiliser use for smallholder farmers in the Asia-Pacific region.
1. Industry insights on the impact of continued high fertiliser prices in the medium- to long-term future.
1. The future of fertiliser use in a de-carbonised world

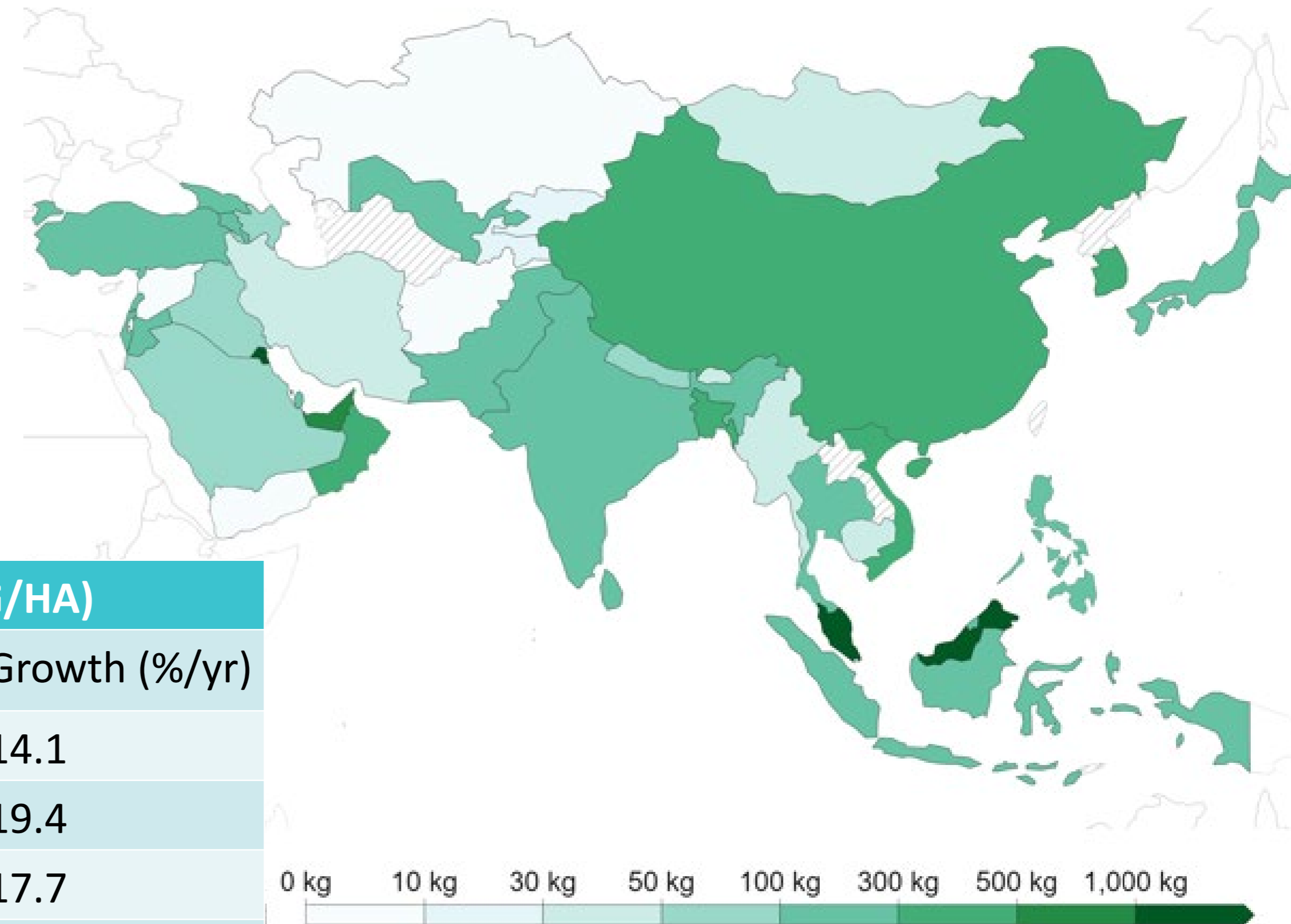
# Insights and consultations



# Fertiliser use for smallholder farmers in the Asia-Pacific region

# Rice and fertiliser use in Asia

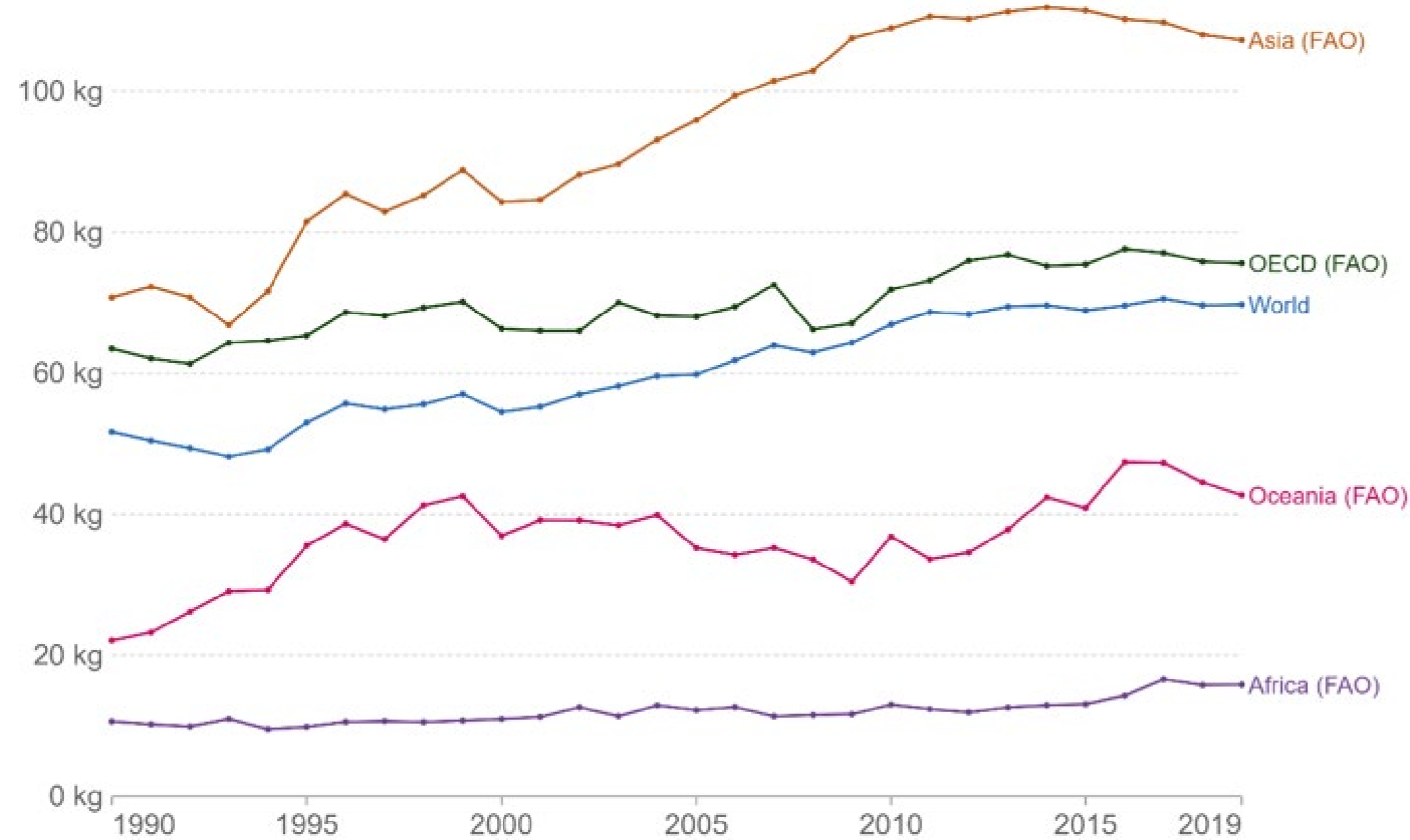
	ASIA	WORLD
RICE AREA (M HA)	144	166
PADDY YIELD (T/HA)	4.8	4.6
PADDY PRODUCTION (M TON)	685	766
PER CAPITA RICE CONSUMPTION (KG/YR)	85	57
FOOD INSECURITY (MODERATE/SEVERE) (%)	26	20



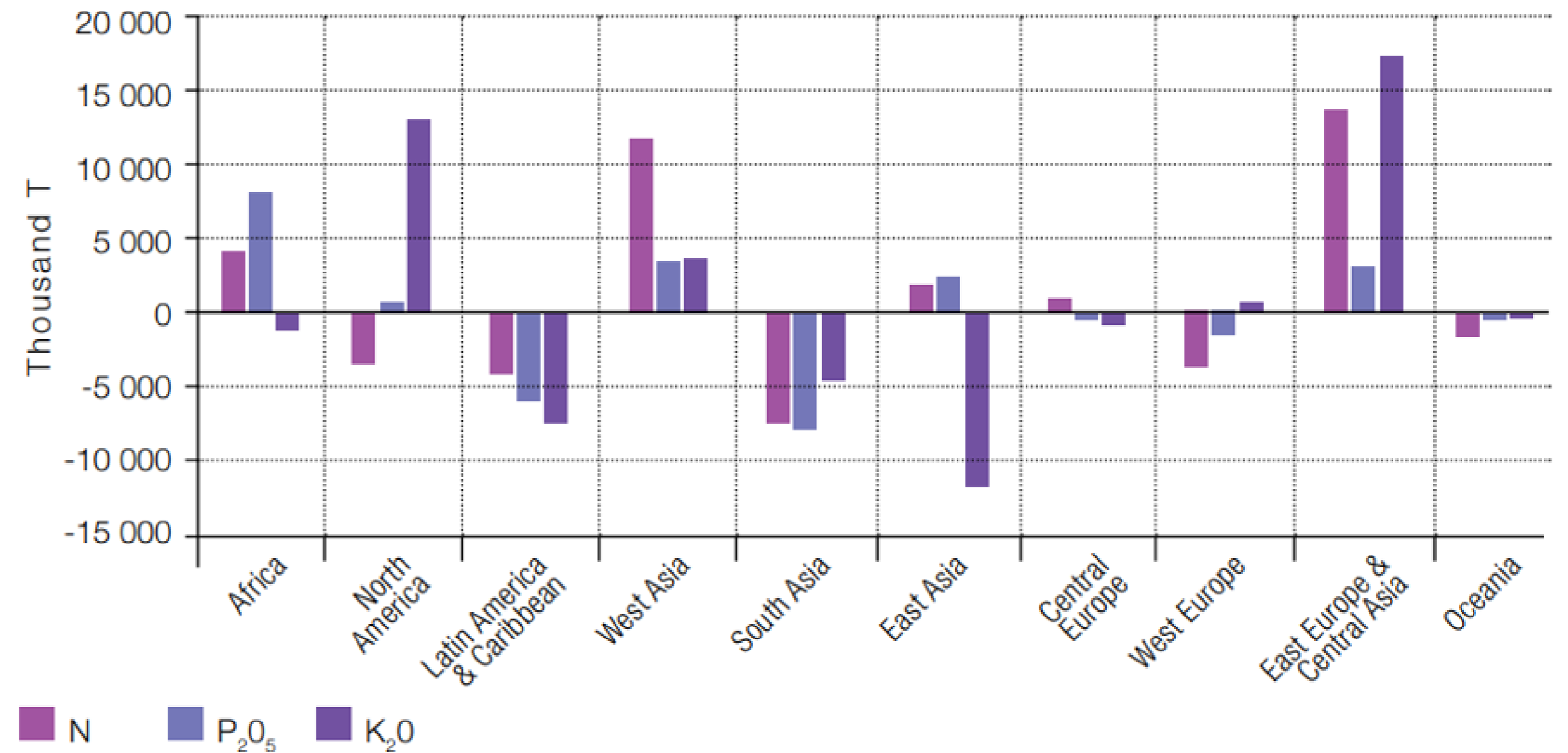
COUNTRY	PADDY YIELD (T/HA)			NPK USE (KG/HA)		
	1970-72	2018-20	Growth (%/yr)	1970-72	2018-20	Growth (%/yr)
CHINA	3.3	7.0	2.3	47	370	14.1
INDIA	1.7	4.0	2.9	16	163	19.4
INDONESIA	2.4	4.7	1.9	12	114	17.7
BANGLADESH	1.6	4.5	3.6	16	283	34.2
VIETNAM	2.2	5.9	3.5	46	254	9.1
THAILAND	1.9	2.8	0.9	9	115	24.9
MYANMAR	1.7	2.9	1.4	4	44	22.9
PHILIPPINES	1.5	4.0	3.5	27	98	5.4

# Asian supply and demand

Nitrogen (N) fertiliser use per hectare



Supply for Asia is highly exposed to international trade

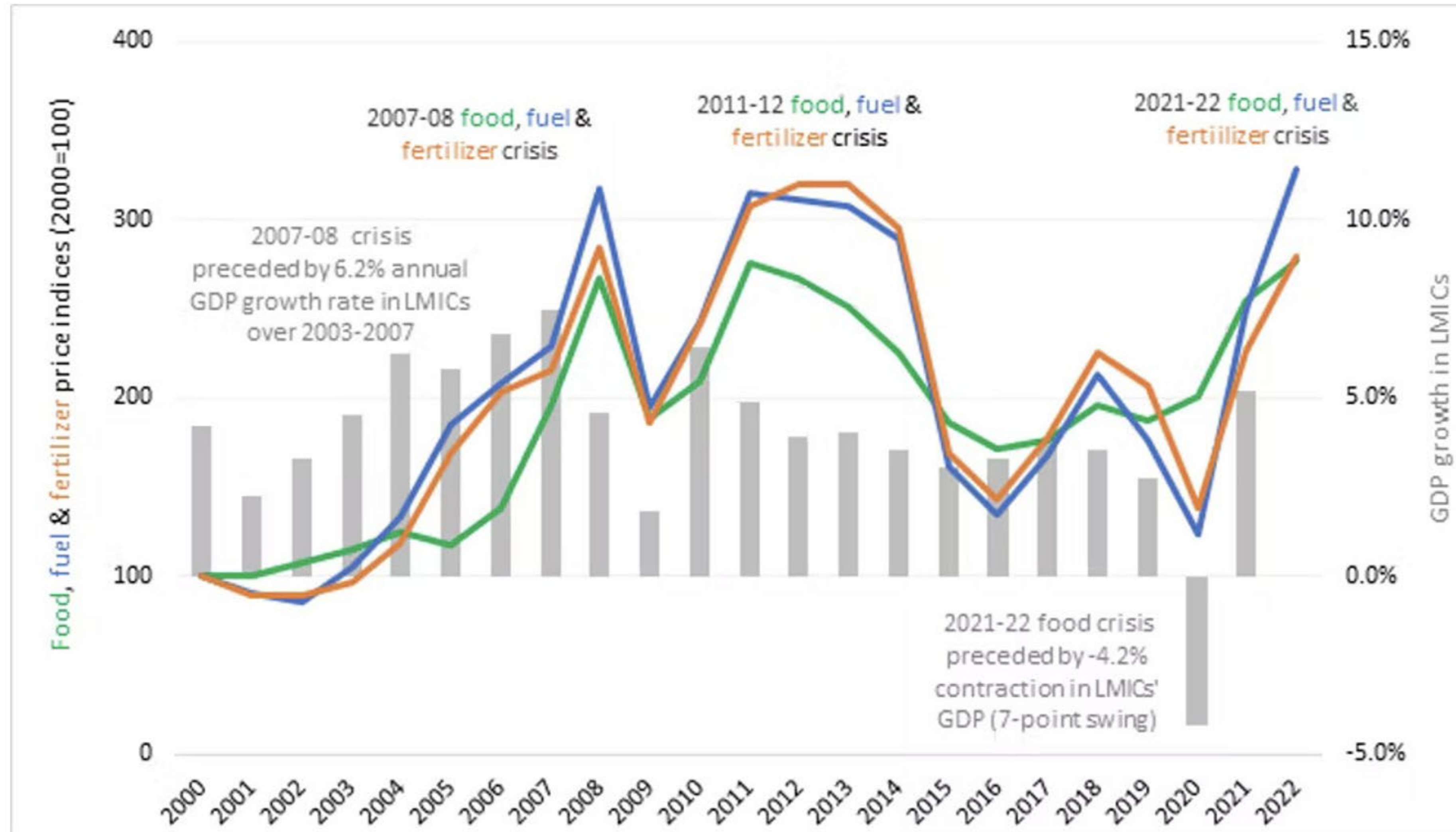


The cost of fertiliser subsidises have grown dramatically throughout Asia, in many cases consuming 50% of national agricultural government spend.

# Industry insights

# 2007-08 to 2021-22

## Food, Fuel and Fertilizer Prices vs. Low- and Middle-Income Country GDP growth, 2020-2022

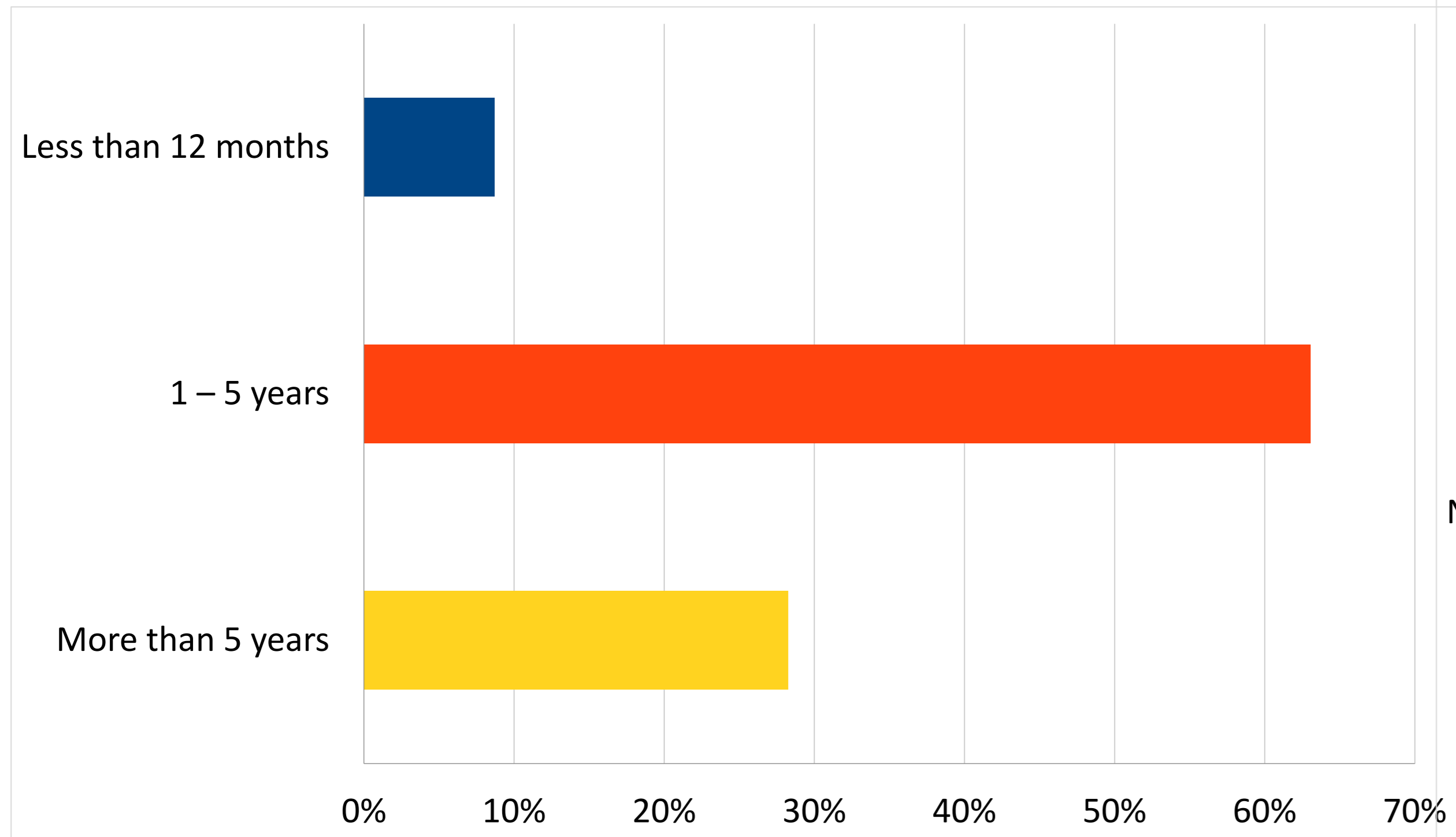


Source: FAO/IMF/World Bank

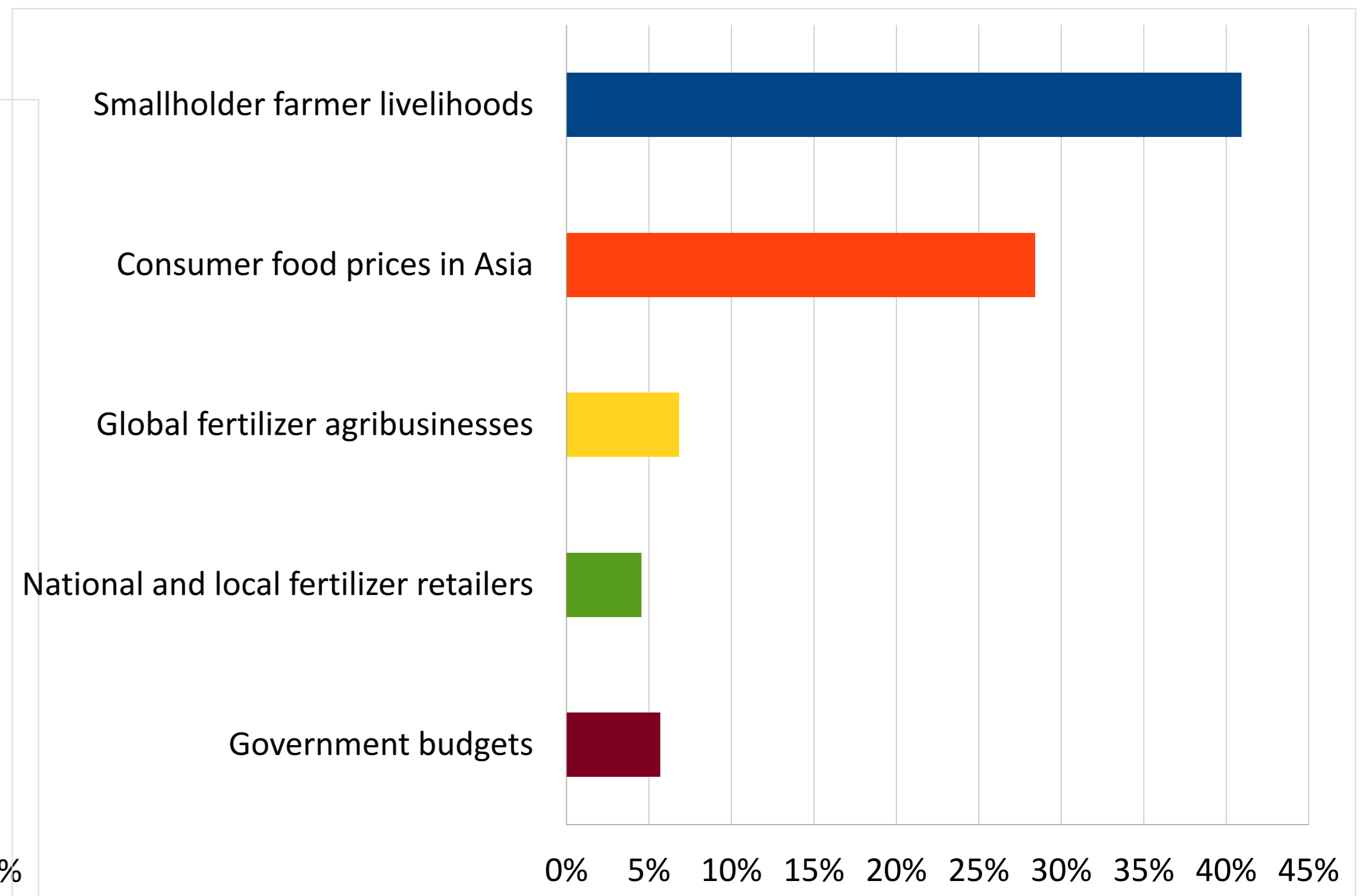


# Stakeholder insights

## How long will it last?



## Who is affected?



# Responses

Global	National	Local
Trade restrictions	Reconsidering (or transforming) subsidises and policies	Not planting
Production capacity reduced	Improving use efficiency through capacity building	Alternative crops (cash or less inputs)
Renewable energy production	Encouraging alternatives	Alternative inputs

# Future of fertiliser use in a de-carbonised world

# Various recommendations

1. On-farm fertiliser use efficiency
2. Alternatives to chemical fertilisers
3. Policies for open trade of food and fertilisers
4. Collaboration to build the green fertiliser sector

# Current action<sup>1</sup>.

1. Yara International – investing in green manufacturing
2. China – domestic environmental policies reducing supply
3. Indonesia – subsidy policy reform
4. Asian Development Bank - \$14B to ease the food crisis

<sup>1</sup>. illustration purposes only, not exhaustive

# A sustainable, greener fertiliser future

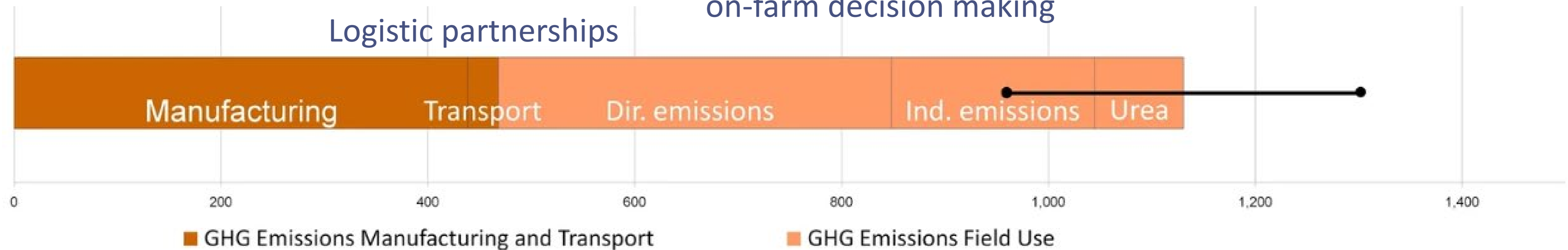
**Global Manufacturers** – investing in innovation for the future supply base

**SME** – benefiting from IP, being close to market

**Smallholder farmers** – capacity for effective and efficient fertiliser use

**Digital tools** – to support on-farm decision making

**Carbon markets** – to incentivise good soil health and management



**Role of Government** – support manufacturing innovation, open trade in goods and services, building SMEs and entrepreneurs, capacity building of smallholder farmers, reform fertiliser subsidises, carbon markets, metrics and regulations.....

# Possible programming

1. Seeking collaboration with government and the private sector (both large and SME) to scale innovation and build the capacity of smallholder farmers, perhaps through existing programs such as the Market Development Facility (MDF)
2. Engage with global and local nitrogen fertiliser manufacturers to determine development support for the transition to green fertiliser supply.
3. Ensuring policy engagement highlights the need to maintain open trade of food and fertiliser as we navigate the crisis.
4. Engage in dialogue that enables both the food security and environmental impacts to be understood in conjunction with strategies that lowers food insecurity and adverse ecological outcomes from fertiliser use.
5. Support the development of novel collaboration that generates and scales innovations, including digital technologies, into the hands of smallholder farmers who can use decision-support tools to improve farming practices.

# Thank You



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