

The National Fertilizer Plan and its implications for nitrogen sustainability in Brazil



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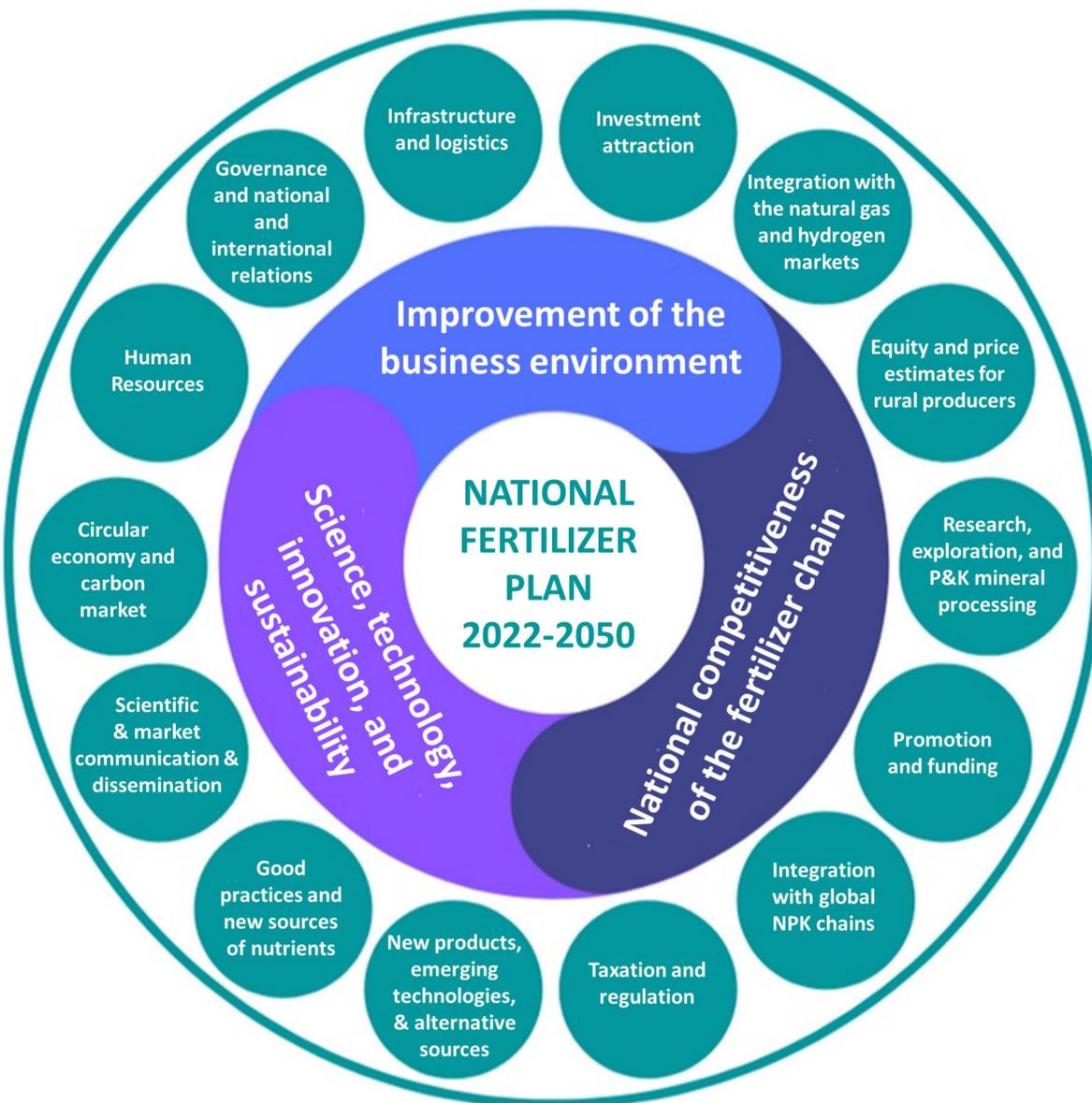
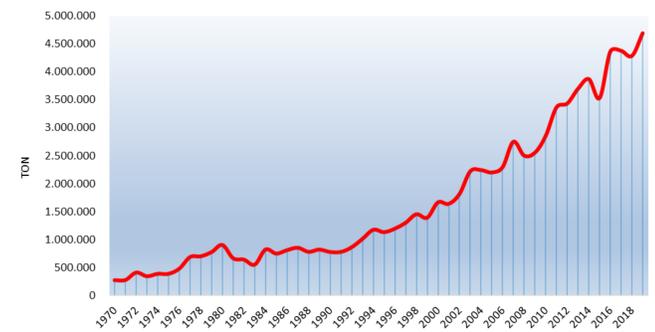
Brazil's agribusiness in numbers¹

- 41% of the land is used for agriculture and livestock
- 38% of labor force
- 40% of total exports
- 4th largest commodity producer in the world

Fertilizer consumption²

- 85% of the fertilizer used is imported
- 4,691,273 tons consumed in 2019
- 365.2 kg per hectare of arable land in 2020
- 1,698% increase from 1970

N-fertilizer consumption (1970-2019)³



NATIONAL FERTILIZER PLAN (NFP)

GOALS

Reduce dependence on imports from 85% to 45% by 2050 and increase the participation of Brazilian agribusiness in the international market.

STRATEGIC OBJECTIVES

- modernize, reactivate and expand existing fertilizer plants;
- improve the business environment to attract investments in the fertilizer production chain;
- promote competitive advantages in the national fertilizer production chain;
- expand investments in RD&I (Research, Development, and Innovation);
- adapt the existing infrastructure to allow the integration of logistic hubs and increase the feasibility of fertilizer operations.

NFP BENEFITS

- Increase the competitiveness of the domestic fertilizer industry;
- Decrease agricultural production costs and improve food production systems (including biofuel crops) to ensure food and fuel security;
- Avoid disruption of fertilizer supply due to events with global impact (e.g., pandemic, war, environmental disasters, etc.).

NFP ISSUES

- Brazil is one of the largest N₂O emitters in the world, along with the USA, China, and India⁴;
- High fertilizer consumption is a critical indicator that determines the sustainability of nitrogen management in the country⁵;
- Among the objectives listed in the NFP, there are no actions to ensure the sustainable use of fertilizers, nor to limit nitrogen pollution;
- Science, sustainability, circular economy, among other aspects mentioned in the NFP (left of the circular figure), are related only to the production of fertilizers, not to their use or impacts on the environment.

CONCLUSIONS

While the NFP has the potential to bring many benefits to agricultural production in Brazil, it also encourages the use of nitrogen (pro-nitrogen type of policy⁶) without concrete actions to promote sustainable fertilizer use and curb nitrogen pollution. In a future integrated nitrogen policy, the NFP will need to be reformulated to include environmental concerns and to avoid constraining, counteracting or canceling other N-related policies from different sectors and sources.

References

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