



Pesticide Risk Reduction

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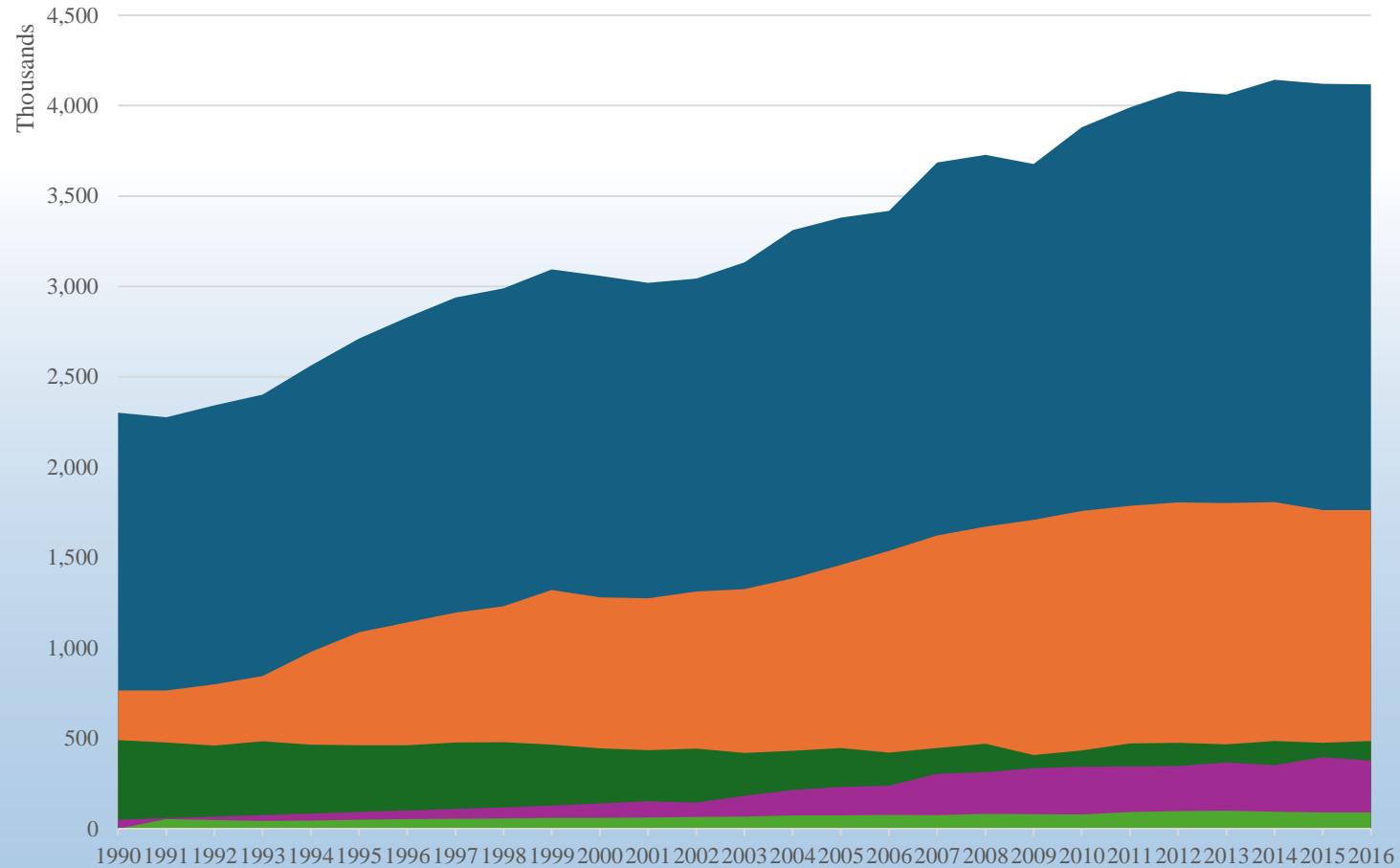


Centre for
PESTICIDE SUICIDE
PREVENTION



Open
Philanthropy

Pesticide use, 1990 - 2016 (metric tonnes of active ingredient)



X 1.86

■ World ■ China ■ Europe ■ Argentina ■ Brazil ■ Africa

FAO STAT, September 2018

Current thinking

- The cocktail of chemical pollution that pervades the planet now threatens the stability of global ecosystems upon which humanity depends (Stockholm Resilience Centre 2022)
- The assumption by regulators around the world that it is safe to use pesticides at industrial scales across landscapes is false (UK Chief Scientific Advisor)
- There is no conflict between low pesticide use and both high productivity and high profitability in the majority of arable farms ([Nature Plants 2017](#))
- Today's dominant agricultural model is highly problematic, not only because of damage inflicted by pesticides, but also their effects on climate change, loss of biodiversity and inability to ensure food sovereignty (UN Special Rapporteur on the Right to Food)

Impact on people

385 million
poisonings/year globally

15,000 deaths/year
globally

150,000 pesticide
suicide deaths/year



Are synthetic chemical pesticides doing what you think they are doing?

Predator/parasite populations are declining and slow to recover

Pest resistance/ Pest relocation

Increased nutrition & palatability of crops to pests from chemicals

Beneficial organism populations decline (insects, amphibians, reptiles, birds, mammals)

Soil biota depleted

Phyto-toxicity of pesticides



Why are pesticides so widely used?



Advice



Commerce



Regulation



Knowledge



Market
pressures



How Pesticide Risk Reduction?



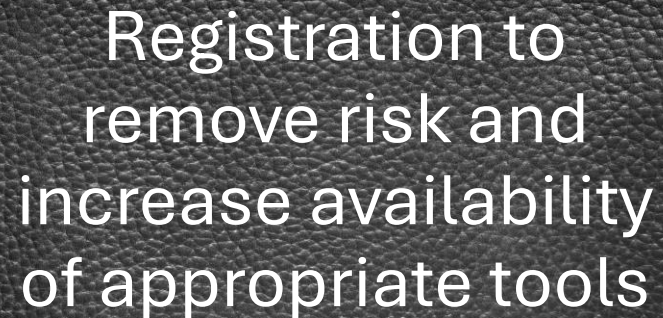
Farmer knowledge



Input vendor
support



Extension and
service provider
support



Registration to
remove risk and
increase availability
of appropriate tools



Legislation to allow
regulators to act



Policy to guide
legislation

What is your
objective?

**Pesticide
Risk
Reduction**

**Pesticide
Risk
Elimination**

“The more we pour the big machines, the fuel, the pesticides, the herbicides, the fertilizer and chemicals into farming, the more we knock out the mechanism that made it all work in the first place.” David Brower



Thank you for your attention