Case Study on Unregulated Pesticide Usage in India

How Indian pesticide Industry formulated?

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- In theory, the pesticide industry in India is regulated and farmers are meant to be educated on usage and dosage by trained agricultural extension agents who are supposed to reach out to them.
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- The two main agencies involved are The Central Insecticide Board and Registration Committee (CIBRC) and FSSAI.
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- The CIBRC registers pesticides for crops while the FSSAI sets the maximum residue limits of pesticides for the crops it has been registered for.
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- The state agriculture universities and departments then make their own recommendations for these pesticides.
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- The agriculture extension agents would generally follow the recommendations of the state universities and boards.
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- That is CIBRC would approve a certain compound for a certain crop; based on that, FSSAI would determine the maximum residue limit for that particular pesticide for that crop.
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- All this assumes a perfect world where there is perfect information flow from the CIBRC to the state universities to the extension agents to the farmers.
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What are the practical constrains in this structure?

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- In practice the industry is a complex maze, there is a huge dearth of extension agents in most states due to budgetary constraints.
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- Due to this farmers are advised on sale, usage and dosage by the local shop

selling agricultural equipment and clearly there is a conflict of interest there.
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- So a farmer may end up spraying cauliflower with X chemical.
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- If this X has not been approved for spraying on cauliflower, there may not even be an MRL set by the Government.
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- The farmer sprays in whatever proportion the seller has told him, which may be many times over the safety limit.
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- It is clear that the people spraying it had very little knowledge of what they were spraying.
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- In India the people who involve in the pesticide spraying does not use any protective gear.
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What are the concerns in Indian Pesticide regulations?

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- India allow sale of 93 chemicals that have either been banned or restricted in most of the developed world and some even in neighbouring countries like Nepal and Bangladesh.
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- India also allow the manufacturing of chemicals like monochrotophos.
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- There are at least 18 others that have been classified as extremely hazardous or very hazardous by the WHO.
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- Most developed countries review the impact of pesticides every five years but in India there are no such provision.
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What are the impacts of unregulated pesticide usage?

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- According to official estimates, pesticide poisoning is directly responsible for the death of at least 10,000 people every year in India.
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- There are higher incidence of breast cancer among women residing in the Gangetic plain as compared to the control group staying in urban areas.
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- Exposure of children to toxins will lead to various developmental problems including impaired cognitive functions.
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- There are direct links between exposure to pesticides or Persistent Organic Pollutants (POPs) and prevalence of Type-2 diabetes in adults.
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- People with higher concentrations of these chemicals, are four times more likely to suffer from diabetes as compared to others.
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What are the instances of pesticide poisoning?

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- In October 2017 about 40 farmers died and more than 700 were hospitalised in Maharashtra due pesticide poisoning.
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- Initial reports suggest that the deaths are due to monochrotophos, this is a highly toxic chemical that has been banned in more than 60 countries but is still allowed to be sold in India.
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- This is the same chemical that was responsible for the death of 23 children who consumed the toxic mid-day meal in Bihar in 2013.
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- This chemical was completely banned in the US in 1991 because it killed huge populations of birds.
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- In 2014 many children died in Kerala, due to the exposure of the pesticide Endosulfan, which was banned in many countries.
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- There are also many reported instances of still births and child births with deformities in the region where this pesticide has been used.
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Source: Business Line

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