



What does 2023 hold  
for the Indian chemical  
industry?

Ravi  
Raghavan

Editor  
*Chemical Weekly*

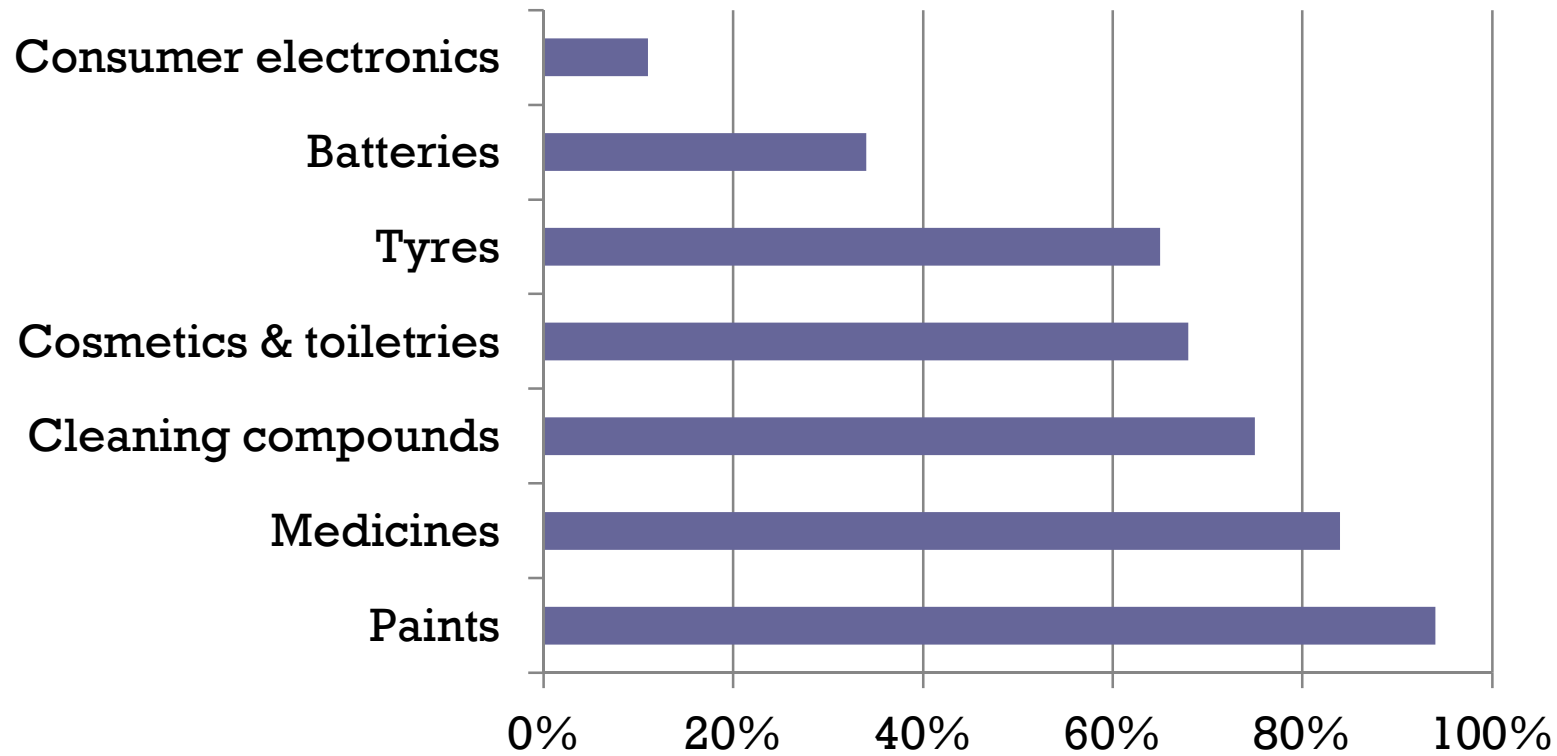
ChemExpo India 2023  
April 18, 2023 • Mumbai



# Vital role of chemicals



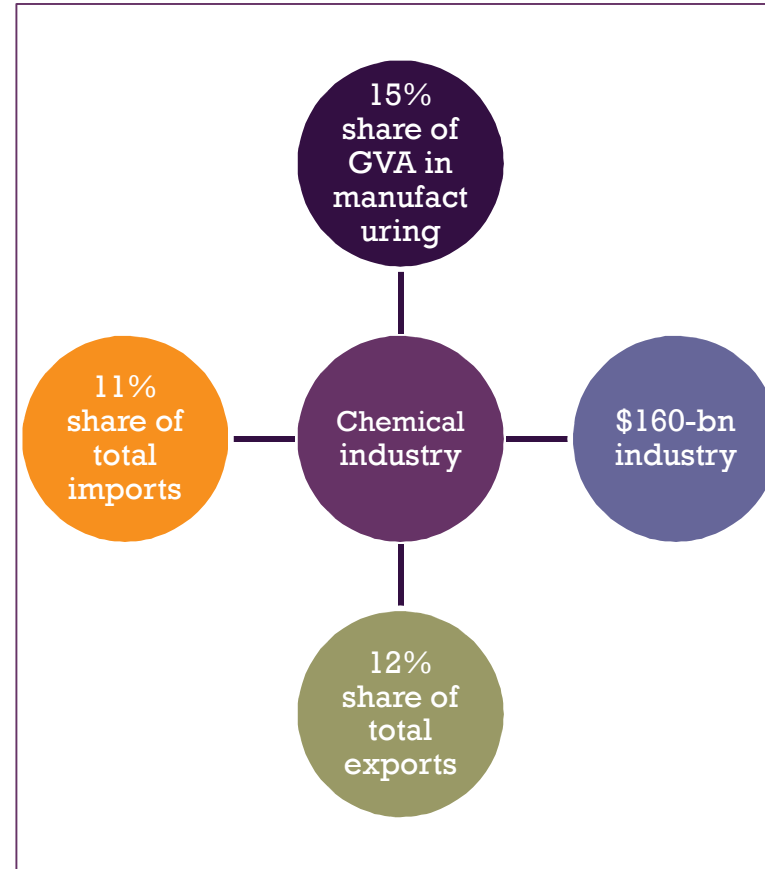
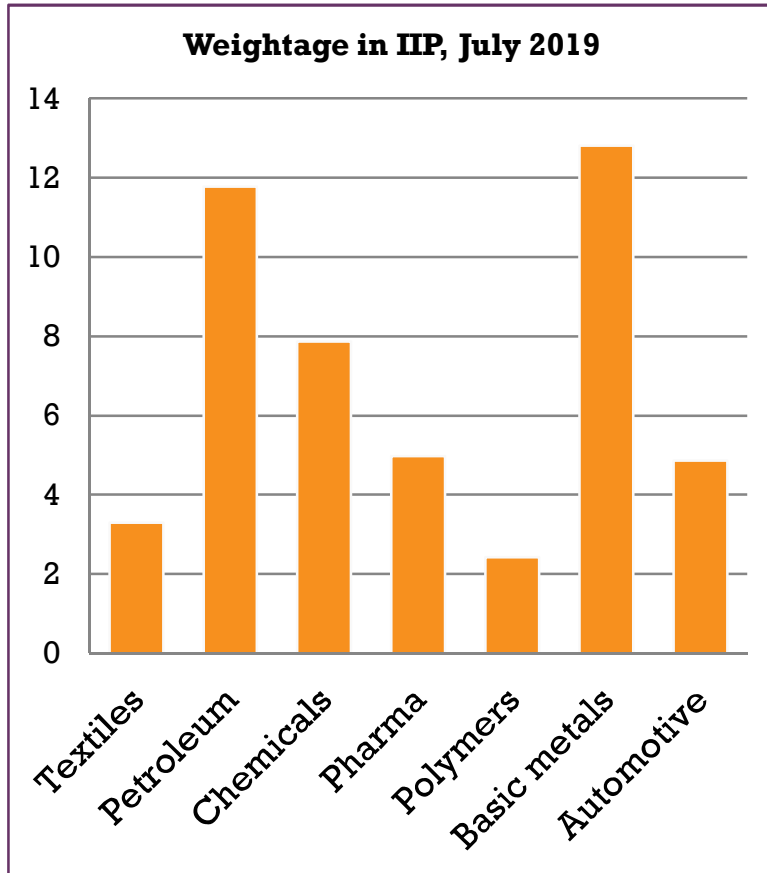
**Chemicals as % of material inputs in manufacture of ....**



Source: Kline & Co



# Chemical industry is important for India .....



Though direct contribution of chemical industry to India's GDP is ~7%, its indirect contribution is ~60%



# Concerns of government

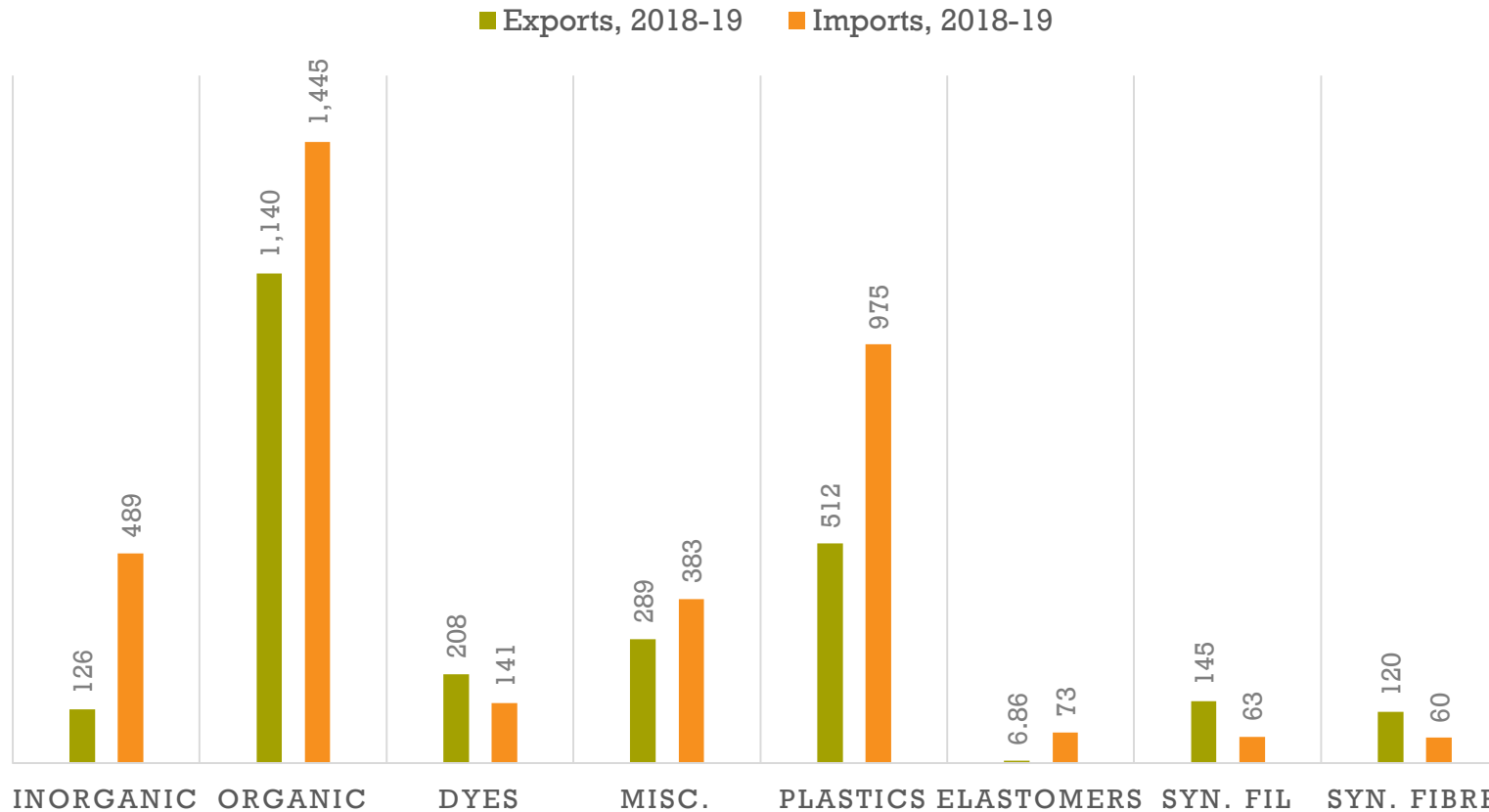


- Rising trade deficit
  - Much of the demand growth in recent years taken by imports
  - Dependence, especially on China in important segments as agrochemicals, pharmaceuticals
- Safety of chemicals commercially in use
  - Need for comprehensive Chemicals Regulation
- Sustainability-related practices in industry
  - Impact on the environment
  - Impact on human/animal health



# Rising trade deficit

India faces a trade deficit of ~US\$15-bn in chemicals



..... But Colorants (dyes & pigments), Agrochemicals, Pharmaceuticals, F&F ingredients have significant trade surplus





# Levers for attracting investments into India

## Infrastructure & cluster creation

- Dedicated zones
- Clear zoning to mitigate risks
- Utilities, logistics, waste management

## Value chain development

- Allocation policy for feedstock from crackers/refineries
- Roadmap of national needs
- Objective assessment of competitiveness

## Ease of doing business

- Speedy clearances and permissions
- Reality check on environmental norms based on current science
- Favouring the compliant; punishing the deviant

## Production Linked Incentives

- Provided annually for few years to new investments & expansions
- Aim: Import substitution and/or enhancing export competitiveness

- Selective tinkering with tariffs can upset value-creation efforts and only recast import profile
- Across the board increases find disfavour with consuming sectors

## + Production Linked Incentive Scheme: The thinking as of now

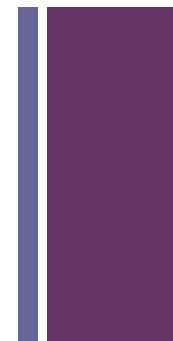
- Looking just at imports is too simplistic, though some weightage needs to be given
  - Will skew the support to commodity chemicals, wherein competitiveness could be compromised
- Instead, prioritize downstream investments in fine chemicals that support chemistry-intensive industries wherein India's competitiveness is better
- Key products, small in size individually, but capable of supporting complex value-chains in which significant growth opportunities exist – in India and/overseas.
- Nurture Key platform technologies such as fluorine chemistry, phosgenation, hydrogenation, chlorination, etc.
- 40 chemicals identified
  - 8 go into pharmaceutical industry
  - 7 go into agrochemical industry
  - 5 go for dyes & pigments
  - 20 serve multiple uses
- Budget outlay of ~Rs. 5,000 crore spread over 5 years

Incentives will come in handy.... But are unlikely to be adequate in itself



## Promoting self-reliance: Some points to keep in mind

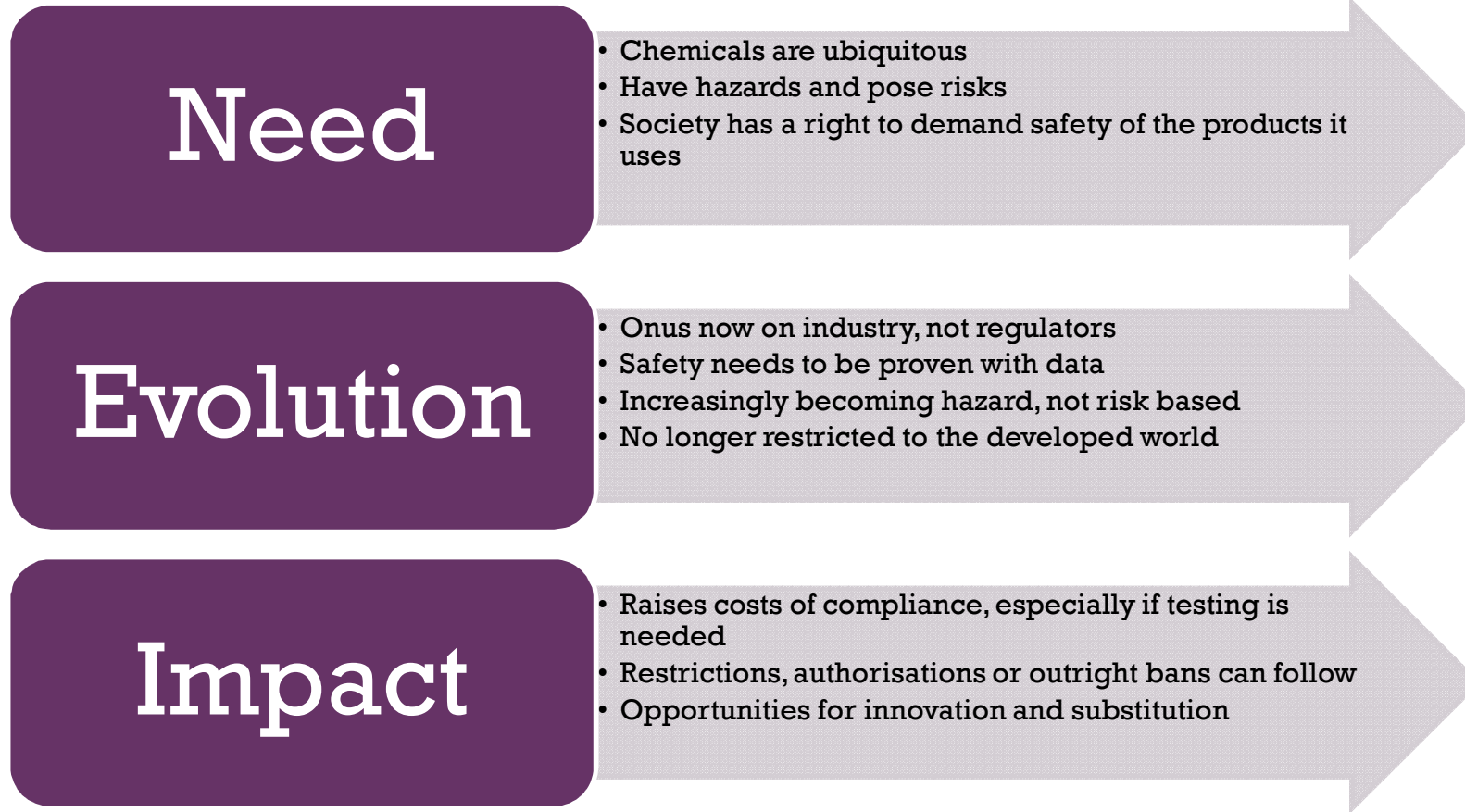
- Chemical industry is diverse – in terms of technology, scale, complexity, end-use
- No country makes all that it needs....
- .... World trade in chemicals is substantial and has largely benefited economies
- Building walls through tariff, or as increasingly the case, non-tariff barriers, could lead to retaliatory action
- Importantly, end-users should not have to endure a high cost base that jeopardizes their competitiveness
- Unfair trade practices are a problem ....
- .... But mechanisms exist to thwart them [e.g. Safeguard and Anti-dumping Duties]
- There is scope to speed-up process of scrutiny of applications and their implementation ....
- ... But voices of customers need to be heard.







# Safety of chemicals in commerce: The role of regulation



The argument that society must bear some of the risks that come with chemical usage, if it is to enjoy the benefits the industry offers, is no longer valid.

# + India REACH (for want of a better term!) How chemicals regulation could look in India

The 'Draft Chemicals (Management & Safety) Rules, 20xx' provide for three-level of actions and reactions

Requirement	Applies to	Information sought	Timelines
Notification	All existing substances	Basic: CAS, IUPAC, uses, quantity (in tonnage bands)	Soon after the rules come into force
Registration	Priority Substances	Submission of Technical Dossier – hazard classification, human & environmental exposure etc.	>1,000 tonnes: 24 months
		Companies can collaborate to compile Technical Dossiers	100-1,000 tonnes: 36 months
			<100 tonnes: 48 months
Restriction	Substance that poses an unacceptable risk to human safety or the environment	Registrants may seek permission for specific uses of Restricted Substances, by providing scientific justifications	

Complex process that requires inter-ministerial discussions;  
Sizeable resources will be needed under DCPC  
Unclear when policy will be finalised and then operationalised.



# India REACH (for want of a better term!) Concerns & Impacts



## Concerns

### Costs

- Notification and registration costs are related to the size of the business
  - Larger companies paying more and SMEs less
- Larger concern is costs associated with compiling data needed for the Technical Dossiers and Exposure Scenarios
- Consortia approach provided for, but apportioning within each can still be a bone of contention

### Confidentiality

- Will companies be forced to share testing data?
- Will commercially sensitive information be kept safe?

## Impacts

Some large volume chemicals may come up for restrictions or even bans

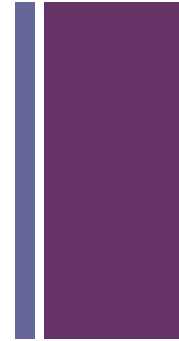
	Product of concern	Substitution option
Phthalate plasticisers	Low MW options – DOP, DBP, DIBP etc.	High MW– DINP, DIDP, terephthalates etc.
Surfactants	Akylphenol ethoxylates – e.g. NPEs	Fatty alcohol ethoxylates, bio-based surfactants
Stabilizers for PVC	Lead-based	Ca-Zn, organo-tin
Preservatives for personal care	Parabens	Phenoxyethanol, benzoic acid etc.

The palette of ingredients available to some end-use segments may shrink  
This will drive reformulation or retuning of processing conditions



## Sustainability-related practices in industry

- Industry is viewed with suspicion by government, despite its importance
- National Chemical Regulation is expected to address safety concerns. as well
- International best practices, such as Responsible Care, are adopted by only a small size of the industry
  - Wider dissemination key
- Government veering around to discriminating between the good, bad and ugly
  - Speedy clearances for compliant companies
- Industry lobbying efforts at policy reforms do work .... Eventually
  - Broad-banding of capacity for APIs and their intermediates has recently been notified, allowing industry to change product slate





## Some takeaways

- Chemical industry is viewed with suspicion by most regulators
  - View formed due ignorance, misinformation and inappropriate behaviour by industry
- Industry speaks in diverse voices, leading to confusion... And consequent inaction of policy makers
- Nevertheless, continued engagement with government is important
  - Engagement needs to go beyond DCPC – encompass Ministries of Petroleum & Natural Gas; Environment, Forests & Climate Change; Finance; Industry
- Liaison focus needs to go beyond corporate concerns
  - Larger societal issues need to be addressed collectively, as through industry associations.
  - Well-researched document on direct & indirect impacts of CI industry – jobs supported, economic value-added, contributions to other economic sectors that currently excite government (renewable energy, electric vehicles, clean water, cheap housing)?
- Chemical industry needs to urgently move to a more responsible and sustainable growth path .... Else it will loose its societal license to operate
  - Ability to attract talent, finance, attention of capital markets etc. may be in jeopardy
- Initiatives such as *Responsible Care* needs to scaled up by orders of magnitude to have an impact on the ground, and change perceptions
  - A carrot and stick approach may be needed
  - Larger companies can handhold value chain partners (suppliers, customers) to a more sustainable & safer path?

