

India Chem 2021

11th Biennial International Exhibition & Conference



Conclave on Global Agrochemical Industry

Shri R.G. Agarwal

Chairman, Dhanuka Group & FICCI Committee on Crop Protection Chemicals

Excerpts from the 1st Quad Summit



- In the 1st Quad Summit 2021 held between Leaders of **US, India, Japan & Australia** held on March 12, 2021

Quote

- ✓ The 4 countries plan to establish a series of working groups that will focus on climate change; critical and emerging technologies, including working to set technology standards and norms and jointly developing some of the critical technologies of the future, officials said
- ✓ In a joint op-ed in The Washington Post on Saturday, the four leaders asserted that all countries should be able to make their own political choices, free from coercion. "To strengthen our quest for a region that is open and free, we have agreed to partner to address the challenges presented by new technologies and collaborate to set the norms and standards that govern the innovations of the future," they wrote.



Unquote

Text Source: <https://economictimes.indiatimes.com/news/international/world-news/quad-summit-went-very-well-says-president-biden/articleshow/81504454.cms>

Source of image of Quad leaders meet: ANI

Appreciation of Key Government Initiatives



- Revolutionary reforms & decisions by Hon'ble Prime Minister, Agriculture Minister & Govt.
- We thank the Hon'ble Agriculture Minister for referring PMB 2020 to Standing Committee
- Industry appreciates these initiatives to make Farmers सर्व सक्षम
 - ✓ Farmers' Produce Trade & Commerce (Promotion & Facilitation) Act, 2020,
 - ✓ Essential Commodities (amendment) Act, 2020,
 - ✓ Farmers (Empowerment & Protection) agreement on price assurance & Farm services Act, 2020
- **We appreciate the initiatives being taken under 3D agenda for reforms vide meetings held under chairmanship of Additional Secretary (PP) Shri Atish Chandra, IAS**



Source: The Economic Times













Source: The Financial Express

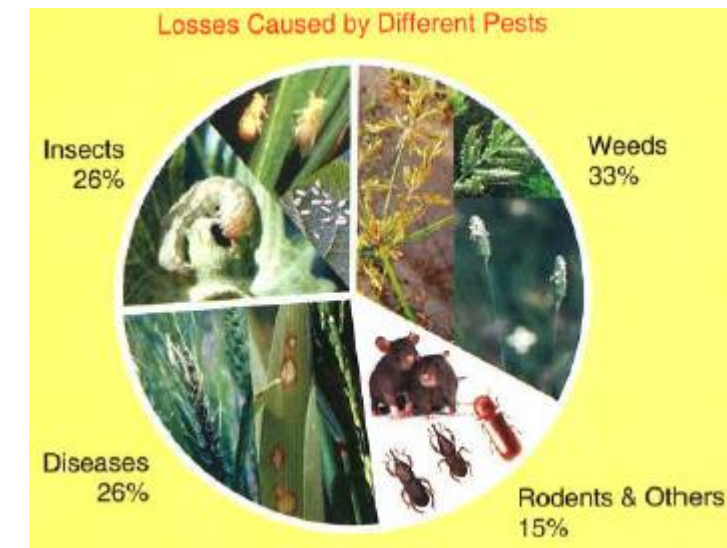
Crop losses threaten our food & nutrition security (1/2)



- Grain saved is grain produced
- As per IARI, 8-90% crop losses happen due to non usage of quality pesticides
- Also, Annual production losses due to pests & diseases in India estimated at Rs. 90,000 crores in 2002 (37th Standing Committee under Ministry of C&PC) (today's value may be around Rs. 4 lac crores)

Avoidable Crop Losses Due to Pests & Cost Benefit Ratio of Pesticides in Different Crops

Crop	Avoidable Losses (%)	Cost : Benefit*
 Cotton	40-90	1:7
 Paddy	21-51	1:7
 Mustard	35-75	1:12
 Sunflower	36-51	1:8
 Groundnut	29.42	1:26
 Maize	20.25	1:3
 Pulses	40-88	1:4
 Sugarcane	8-23	1:13
 Vegetables	30-60	1:7
 Fruits	20-35	1:4



Published by



Division of Agricultural Chemicals
Indian Agricultural Research Institute
 New Delhi – 110 012.
 Website : www.iari.res.in

Source: **IARI's 2008 Study** titled 'Pesticides: A Critical Input for increasing Crop yields'

Crop losses threaten our food & nutrition security (2/2)



168 *Indian Journal of Entomology*, 77(2), 2015

Table 4. Current crop losses caused by insect pests to major agricultural crops in India

Crop	Actual production* (million tonnes)	Approximate estimated loss in yield		Hypothetical production in absence of losses (million tonnes)	Monetary value of estimated losses (USD million)
		%	Total (million tonnes)		
Cotton	58.17	30.00	24.93	83.10	15767.69
Rice	106.65	25.00	35.55	142.20	8467.36
Maize	24.26	18.00	5.33	29.59	1268.41
Rapeseed mustard	7.88	20.00	1.97	9.85	1026.70
Other Oilseeds [#]	15.16	12.00	2.07	17.23	1215.55
Groundnut	9.71	15.00	1.71	11.43	1172.13
Pulses ^{##}	19.78	15.00	3.49	23.27	2285.29
Coarse cereals ^{###}	19.03	8.00	1.65	20.68	378.20
Sugarcane	352.14	20.00	88.04	440.18	3160.25
Wheat	93.51	5.00	4.92	98.43	1135.75
Total/Average		16.80			35877.32

Rs. 2.65 lac crores
(estimated in 2015)

*Production and minimum support price (MSP) fixed by Government of India for 2013-14, are adapted from Directorate of Economics and statistics, Department of Agriculture and Cooperation (DAC, 2015) and Anonymous (2015).

[#]Other Oilseeds includes sunflower, safflower, sesamum, nigerseed, soybean, linseed, castorseed

^{##}Pulses includes gram, lentil, arhar, moong, urd

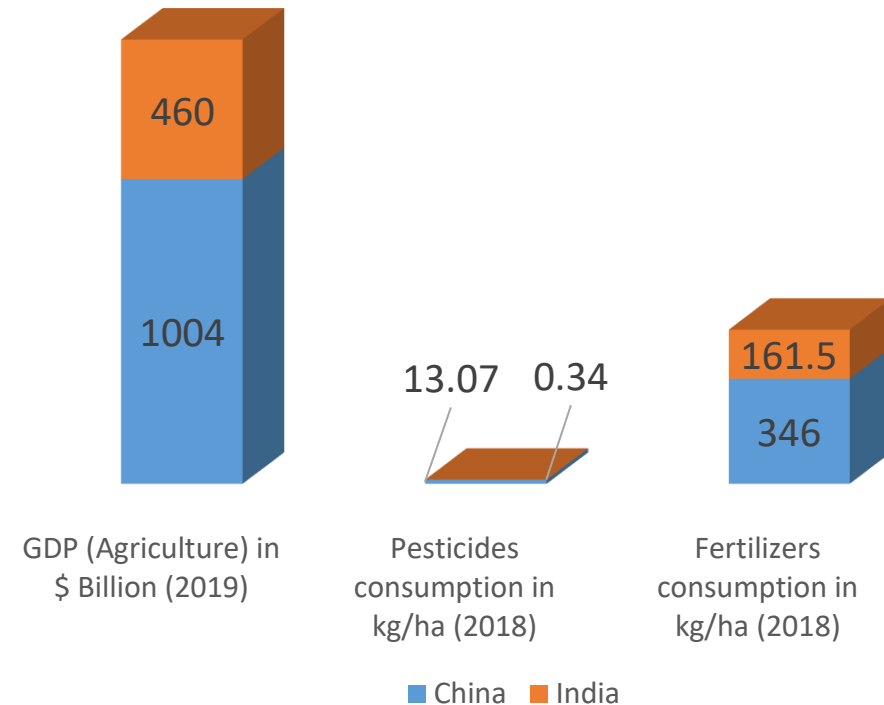
^{###}Coarse cereal includes jowar, bajra, ragi, barley, small millets

Snapshot: India Vs The World & India Vs China



- India uses 58,000 tons of pesticides annually
- Use of pesticide in India lowest (< 0.34 kg/ha) (as per FAOSTAT 2018) globally compared to:
 - ✓ China (13.07 kg/ha),
 - ✓ Japan (11.84 kg/ ha),
 - ✓ Brazil (5.94 kg/ha)
- China is the largest consumer of pesticides (1.77 mt) globally, followed by USA (0.4 mt), Brazil (0.377 mt), Argentina (0.17mt), Canada (0.09 mt) & India (only 0.058 mt)

Particulars	China	India
Arable Land (2018)	119.49 mn ha	156.42 mn ha
Rainfall	645 mm	1083 mm



Source & UOM: Pesticides - 2018 FAO, GDP - 2019 World Bank, Fertilizer - FAO 2018, Arable land - FAO - 2018, Agriculture Land - FAO 2018 (<http://www.fao.org/faostat/en/#data/RL>) ; mt is megatonne



Crop Protection Challenges to Farmers

1. Non Availability of New technology products



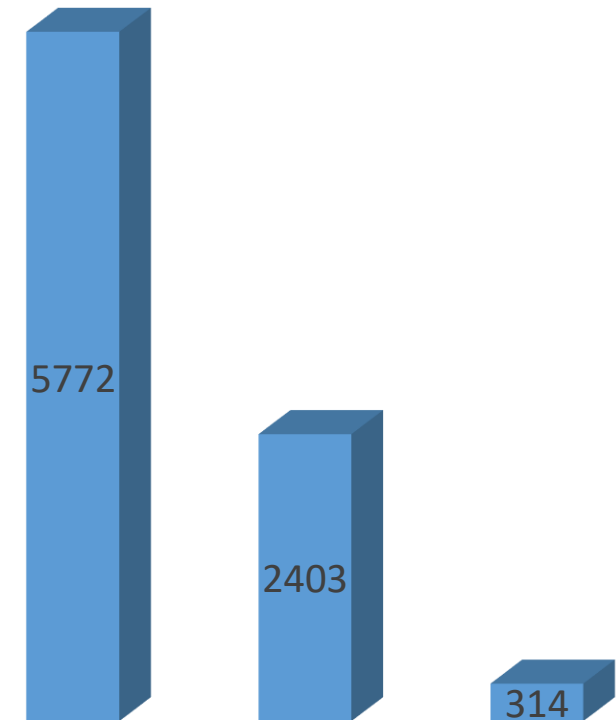
How to save farmers' hard grown crops in absence of new pesticides ?

- New Products are not easy to get:
 - No basic research in India & dependency on MNCs / Japanese Companies who invest around Rs. 2,000 Cr & 10 to 12 years on one new molecule research
 - India: 5 to 7 years time for registration of new products & investment of Rs. 30 – 50 Cr
 - New products not given Intellectual Property protection (Data protection)
 - Above leads to inordinate delay in introduction of new products in India
 - Proposal to increase Import duty from 10% to 20% on Formulation Imports
 - Out of a no. of pesticides registered world over, China has 950+, USA has 800+, Pakistan & Vietnam have 450+, whereas, India has **only 292 molecules**

2. Unregulated Players



- **5772:** Count of companies issued registrations by CIB&RC
(as on 31.10.2020 from <https://pesticides-registrationindia.nic.in/GenReport/frmCompanyListReport.aspx>)
 - **2403:** Number of pesticides manufacturing units as per Lok Sabha Unstarred Question no. 309 (15.09.2020 by Agriculture Minister)
 - **314:** Companies which responded with data as desired by Govt. by various notices & notifications by Sh Jalaj Shrivastava, Ex Addl Secretary DACFW
-
- **5458:** Companies didn't submit data; maybe selling fake products :
a huge threat to the food, nutrition, health & environment security of India
 - **Continued Violation of 261st & other RC decisions, Insecticides Act 1968 & Rules 1971 by Central & State Govts. ;** No action after 2 cos. license cancellation in 2010 after Gazette no. 127, S.O. 166 (E) dt 22.10.2010



3. Impact of Unregulated Players



- Illegal imports (supporting China - biggest source for low quality products in India)
- Huge opportunity loss in terms of Revenue for Customs / GST / Income Tax / Trade Channel & lost employment of Indian Youth
- Menace of Spurious pesticides is very large in India. There is a large parallel grey market which runs parallel to the genuine industry.
- Damage of Indian image is contrary to desire of our Hon'ble Prime Minister who has taken India to the heart of USA & his address was dubbed a ROCKSTAR performance

Path forward with Proposals to deal with these Challenges

Farmers must get Quality Agrochemicals to nullify Crop losses as it works as an insurance to their crops & other agri-inputs

1. New Technology : IOT / AI / Agri-Drones



- Government should speedup issuance of guidelines for usage of 'Drones in Agriculture' & Artificial Intelligence
- Spray of pesticides through Drones for Crop protection for safety of farmers
- Consider Internet-of-things



Source: ScienceDirect.com

2. PMB 'Pesticides Management Bill' 2020



- **Implement 'Ease of Doing business' as per Government of India policy**
- Redraft PMB 2020 by following scientific & research based suggestions of NAAS, TAAS, Farmers' Associations & Industry
- Define evaluation of Safer Alternatives; Define 'pesticides' clearly
- Mandate elaborated list of qualification of person & infrastructure requirement for obtaining registration & manufacturing license
- **Decriminalize clause of 5 years jail term & Rs. 50 lacs penalty as per the Government of India policy of decriminalizing all the commercial acts as presented by Finance Minister Smt. Nirmala Sitharaman under point no. 82 of her budget speech**
- Issue registration certificates of new pesticides in prescribed timeline (1.5 yrs)

ET 29-10-20

GLOBAL FDI

Make China's Loss, India's Gain



Daniel H Rosen & Thilo Hanemann

The Covid-19 pandemic has elevated long-simmering debates about dependence on China-centred global supply chains. This rethink has created tremendous opportunities for India and other developing countries in the region — if they can seize them.

The experience of being forced to scramble to secure masks and ventilators at the height of the Covid-19 crisis has prompted countries across the globe to reassess the risks of depending on others for critical goods. This impulse preceded the pandemic, but has gained new momentum since it erupted. In addition to medical goods, a range of hi-tech inputs from China are facing closer scrutiny.

In most cases, Organisation for Economic Cooperation and Development (OECD) economies will not move their China-based factories home. More likely is a steady deliberate shift of marginal foreign direct investment (FDI) away from China and toward emerging economies. This redistribution will not be even — it will reward the winners of a competition among many nations to es-

tablish themselves as an attractive alternative to China. Countries in the Association of Southeast Asian Nations (Asean), and potentially India, are in the running. Some will profit, while others are passed by.

China presents a useful roadmap for aspiring global manufacturers. Beijing moved to embrace foreign investment in the 1990s, rejecting previous economic theories that fixated on subsidising domestic manufacturing to displace imports, but failed to generate the knowhow and scale to do so. With FDI came technology transfer and competition, which fostered innovation and efficiency along with the development of stronger legal and regulatory systems. Those benefits are still visible today. In Shanghai, foreign firms generate about one-quarter of the city's GDP, two-thirds of imports and exports, and one-fifth of employment.

But if China's early growth is a



Go see where's the money headed

roadmap, its recent performance is a cautionary tale. Inward FDI flows were flat over the past two years, even before the pandemic triggered a further drop in new investment. China has dragged its feet on further opening to foreign investment in services and non-manufacturing sectors. Under President Xi Jinping, China is shifting back toward State planning and Communist Party of China (CPC) interference in private business decision-making, leading foreign investors to look for alternatives.

China's loss is becoming developing Asia's gain. FDI flows to the Asean countries exceeded those to China for the last three years, bringing in nearly \$156 billion in 2019. The shift is particularly visible in manufacturing. But Asean is also attracting investment in the services sector, where China has been a hesitant host.

India, with its size and labour pool, has always held promise as a global production hub. Annual FDI flows into India surged from about \$4 billion in 2000 to \$47 billion in 2008. But over the past decade, annual FDI inflows have stalled. Today, they are just over one-third of what China attracts each year.

India's comparative advantages in land and labour are powerful, but onerous bureaucratic rules and politics are even stronger. Prospective investors are stymied by shifting tax regimes. Despite some consolidation of labour laws at the federal level, there remain hundreds of labour laws at the state level, which can be fragmented, inconsistent and confusing for job-creators. These

are formidable hurdles to businesses contemplating investing in India.

But with the right combination of reforms — some of which are already underway with the latest labour reforms — India could become a hi-tech manufacturing powerhouse. India's trusted relationship with the US and other advanced economies makes it a natural destination for electronics supply chains.

Last July, Taiwan-based iPhone assembler Foxconn announced it would invest up to \$1 billion in a factory in India. Many more multinationals are ready to make the jump, if business conditions are right. India could slash red tape to attract the knowhow and partners it needs to become a new supply chain hub in electronics and many other industries.

Shaken by the Covid-19 pandemic, countries are thinking hard about how to restore supply chain resilience. Home-country reshoring can only be a small part of that, especially for non-hi-tech products. China will remain a manufacturing powerhouse but, at the margin, a diminishing one. Emerging economies in the region have an opportunity to draw in foreign investment that is looking for a new home and set themselves up for faster growth. But to do so, leaders must seize the opportunity, putting policies in place that make their countries an attractive alternative to China at a time of intensifying competition.

The writers are partners, Rhodium Group, New York, US

If changes aren't done in PMB 2020 as per Scientific recommendations to make Indian Pesticide industry a Champion Sector & a hub for Global market; then MNCs won't invest although they want to shift their base from China & may shift to any other Asian Country like Vietnam, Malaysia, Indonesia, Thailand, Taiwan, Philippines, Korea, etc.

Huge Agri Potential in India : Current Opportunity Loss



India Vs China						
Country	Arable Area Mn Ha	GDP from Agriculture		GDP / Area = c / a	Nomenclature	Ratio = d / e
	a	b (in US\$)	c (in Rs.)			
China	119.49	1004	72,769,920,000,000	609,004,268,140	d	2.86
India	156.42	460	33,340,800,000,000	213,149,213,656	e	

Huge Size of the Indian Agri-Potential: To meet the Vision of a US\$ 5 Tn Indian economy, the ADDITIONAL contribution from Indian Agriculture Sector can be 3 times of the current Indian GDP from Agriculture, provided our recommendations made in this presentation are considered by the Authorities. There is a huge scope of additional revenue for all stakeholders such as Govt. & Farmers which automatically will meet the Govt. target of Doubling farmers' income by 2022

Source: GDP - 2019 World Bank, Arable land - FAO - 2018, (<http://www.fao.org/faostat/en/#data/RL>)



- We appreciate & support Hon'ble Prime Minister's Nationalistic Vision to Make-in-India
- What China has been doing for decades, we have started in 2014
- A small group is misrepresenting आत्मनिर्भरता
- We may curb import of unnecessary luxury goods, but we need to import new technology pesticides which aren't available in our Country (Ex. Rafael jets) to make India truly सशक्त

We hope that the Government takes decisions in the favor of 140 Mn Indian farmers.

We believe in:

वसुधैव कुटुम्बकम

Let us together pray to God:

**ॐ सर्वे भवन्तु सुखिनः। सर्वे सन्तु निरामयाः।
सर्वे भद्राणि पश्यन्तु। मा कश्चित् दुःख भाग्भवेत्॥
ॐ शान्तिः शान्तिः शान्तिः॥**