

OUTLOOK OF GM CORN & SOYA FOR INDIAN POULTRY SECTOR: THE PATH TO SUSTAINABLE AND PROFITABLE POULTRY FOR VIKSET BHARAT

Deepak Arora, Founder - Poultry



POULTRY AS THE PROTEIN ENGINE FOR VIKSIT BHARAT

Global meat consumption reaching **374 million tons (MMT) in 2024**. Poultry meat remains the dominant category, contributing nearly **150 MMT (~41%)**. The anticipation for 2047 is that the poultry meat demand will be between **192-200 MMT**.

Indian meat consumption reaching **10.25 MMT in 2024**. Poultry meat with ~50% share contributing nearly **5 MMT**. The anticipation for 2047 is that the poultry meat demand will be between **12-13 MMT**. While we will need 195-210 billion eggs compared to 138.4 billion produced today.

India's poultry sector is a heavyweight, valued at **₹2 lakh crore (\$25 billion)** as of 2024–25 and contributing around ~1.2% to India's GDP or ~14% of livestock GDP, while supporting over 25 million livelihoods directly and indirectly. Anticipation is that it will be between **120-135 billion** by 2047.

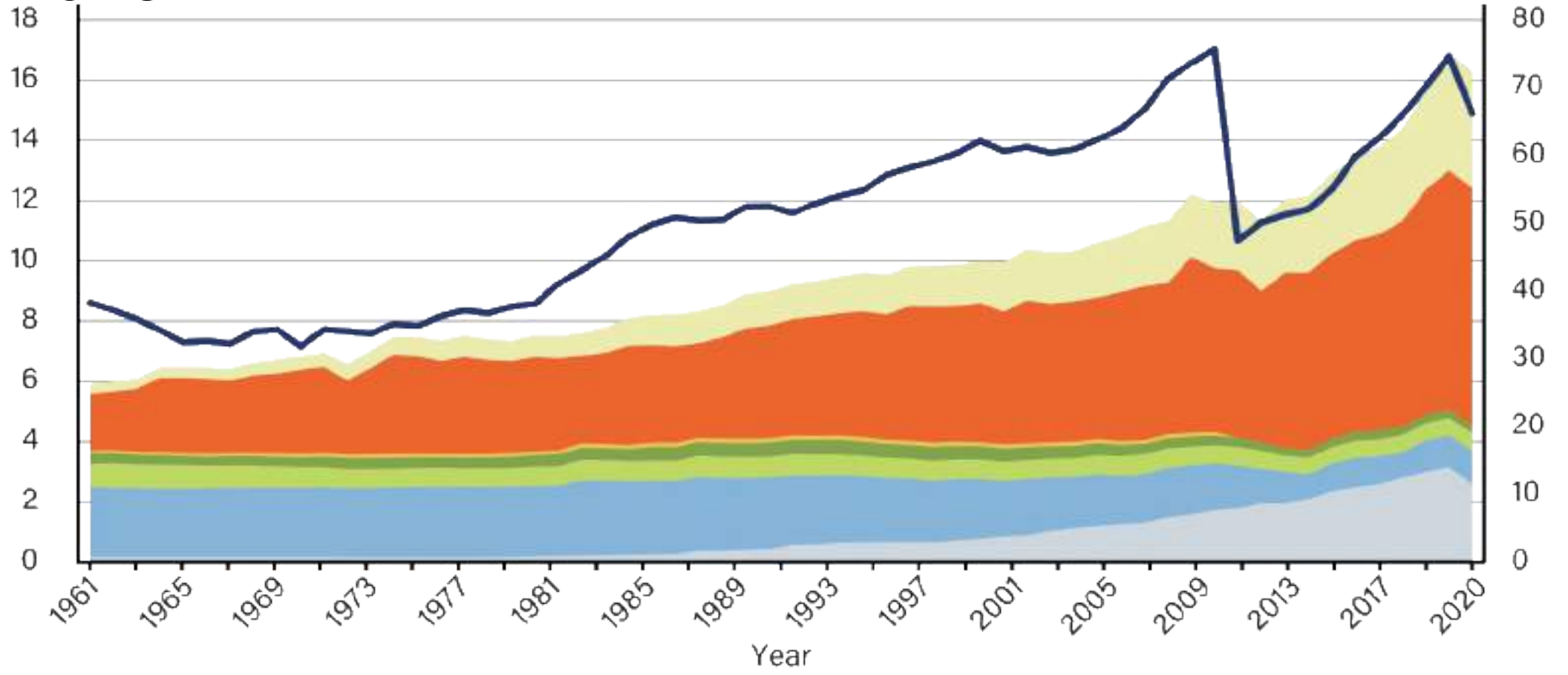
Sources: FAO, Niti Aayog, NIAP



ANIMAL PROTEIN CONSUMPTION – CONTINUOUS GROWTH TILL 2019

Kilograms consumption per capita

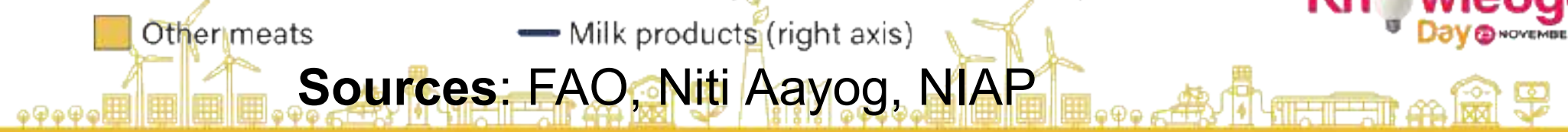
Kilograms consumption per capita (milk products)



- Eggs
- Pork
- Beef
- Fish and seafood
- Sheep and goat
- Poultry
- Other meats
- Milk products (right axis)



Sources: FAO, Niti Aayog, NIAP



BUMP IN THE WAY

Since 2019 the growth is slowing down.

The growth in egg production declined from high of **10.2%** in 2019-2020 to **3%** in 2024-25.

The growth in meet production also slowed down from **6%** in 2019-2020 to **4.9%** in 2024-25.

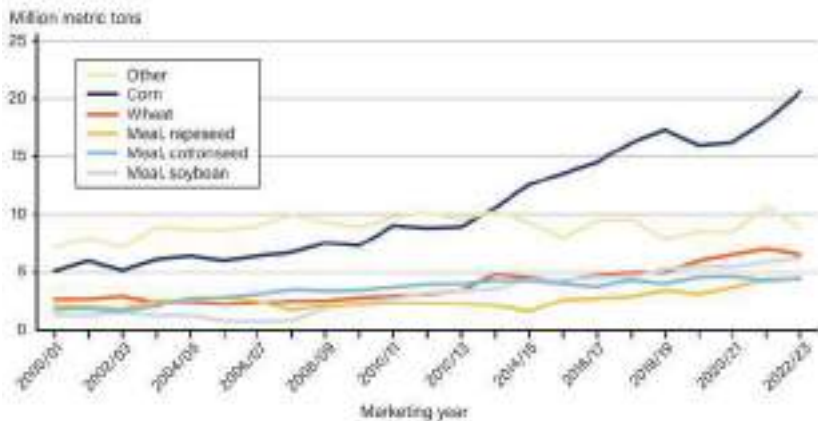
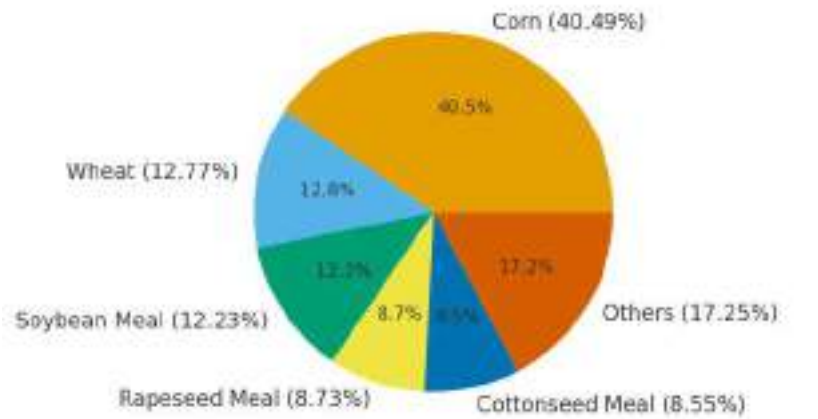
To make Indian poultry sustainable and globally competitive, we must fix the feed first — not just the birds.

Sources: DAHD



FEED ECONOMICS – THE TWIN PILLARS: CORN & SOYBEAN

India Animal Feed Consumption Breakdown (2022/23)



What triggered 2019-2020 reversal.

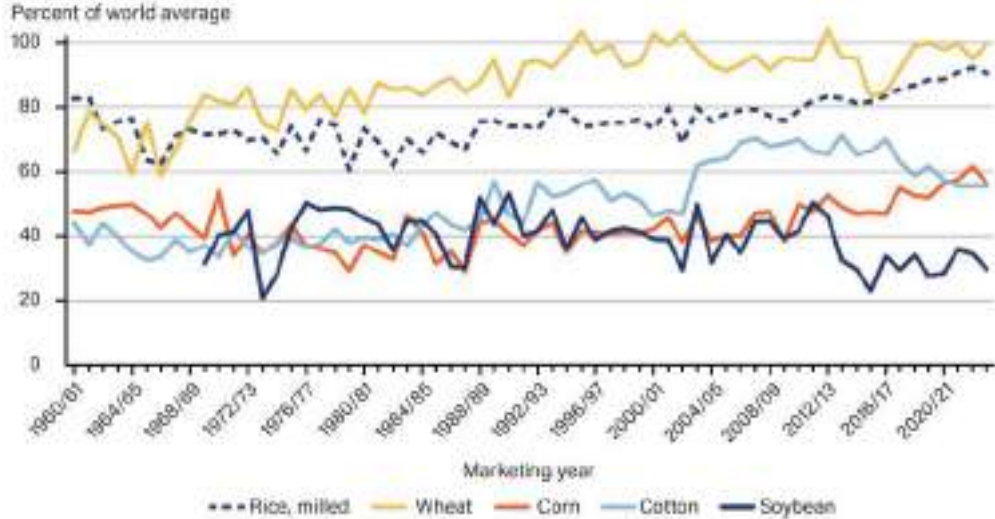
The price of both Maize and Soyabean spiked by average 10% and 14% hence increase in feed price.

The country is deficit in dry fodder (23%), green fodder (11%), and concentrate feed (29%).

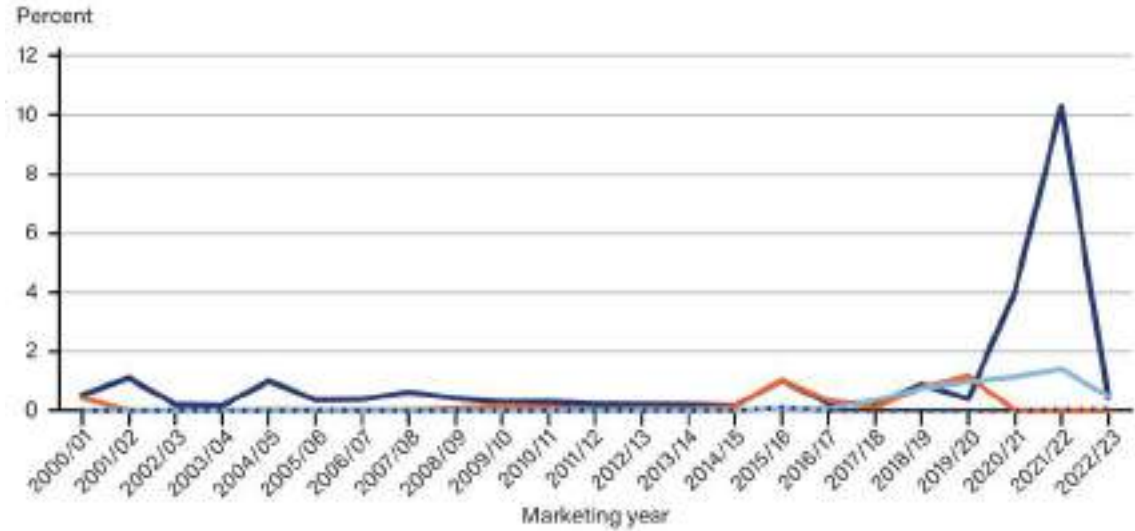
The demand for concentrate feed will increase from 53 MMT in 2024-25 to 127 MMT. Demand for total corn will grow from 43 MMT to 103 MMT and Soyabean from 10 MMT to 43 MMT.

The shortage is expected to worsen owing to competing demands for land, climate

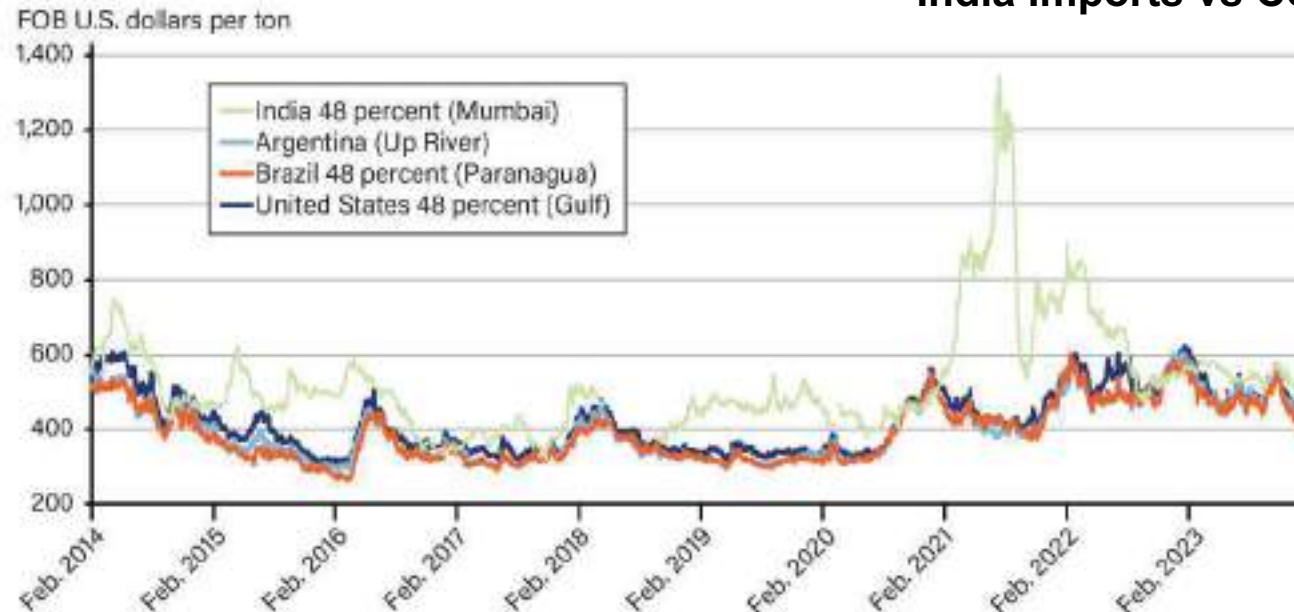
WHO PAYS FOR POOR PRODUCTIVITY?



India Yields

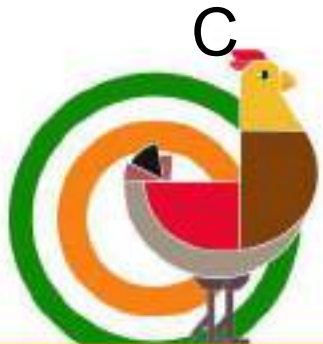


India Imports vs Consumption



Meal – Soyabean FoB

Sources:
USDA/FAO/Mo



**10% HIGHER
COST OF
PRODUCTION**

17th Poultry
Knowledge
Day **25** NOVEMBER

IMPORT Vs GROW

With current constraints of land availability, estimated reduction of 4% yields of Maize and 3.8% in soyabean till 2047 due to climate change, nearly flat productivity growth in case of soyabean over past decade and limited production gains in case of maize, if we do not change our mindset, INDIA will be forced to IMPORT 55-65% of our animal feed concentrate requirement.

- **Feed accounts for 70% of production cost; feed volatility drives farmer distress.**
- **India's maize and soya yields are 25–40% below global average and 1/3rd of top players, with price often 25–40% higher than global price (Brazil/US).**
- **Feed substitution with DDGS and other suboptimal ingredients means lower protein efficiency in the final product.**



UNDERSTANDING GM CORN AND GM SOYA – MYTHS VS. SCIENCE

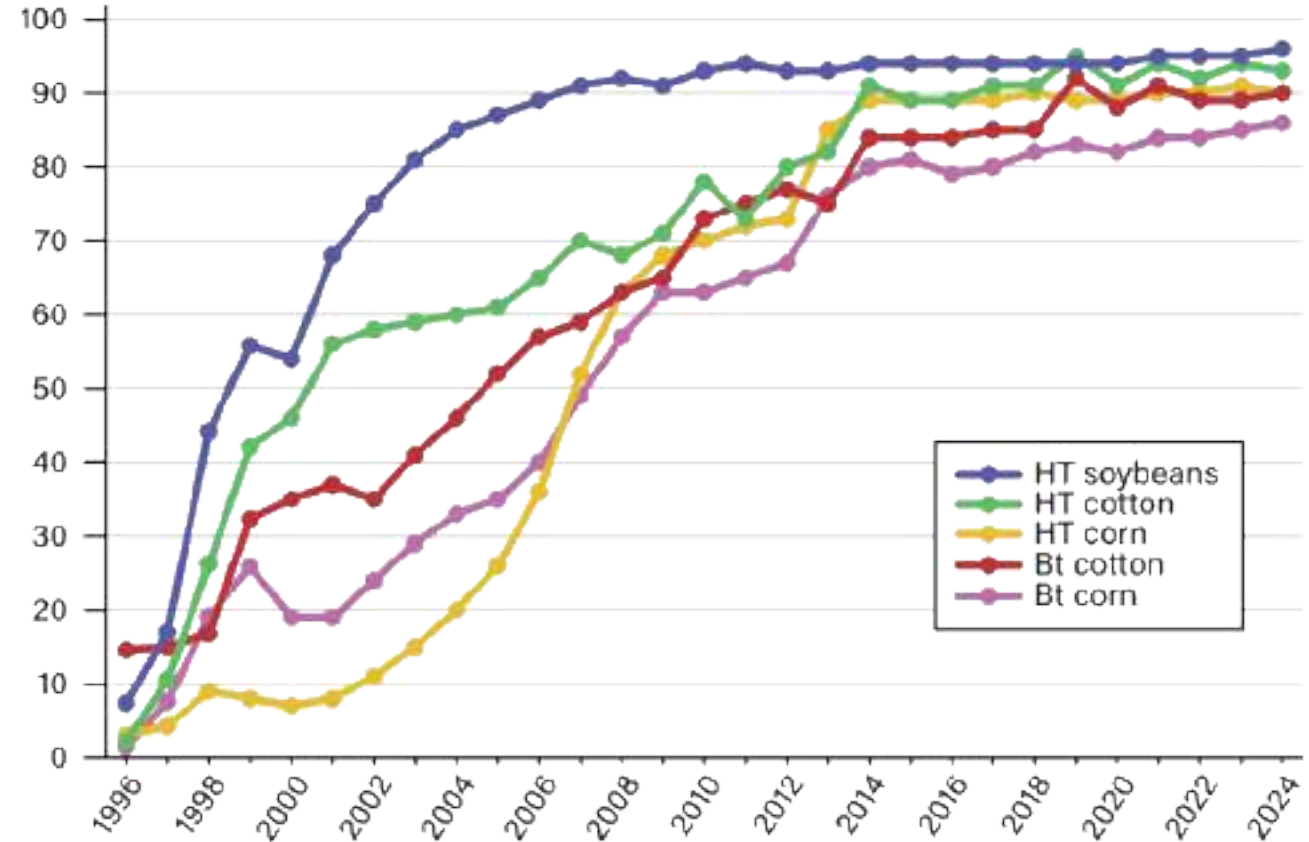
Over 25 years of research, 900+ studies, and hundreds of independent research groups have reached the same conclusion. GMOs are not a health hazard.

In fact, they have reduced pesticide use, cut crop losses, and even improved nutrition in many cases.

“GM foods currently available on the international market have passed safety assessments and are not likely to present risks for human health.” - WHO

The controversies that remain—about corporate control of seeds, pesticide policies, or farmer income—are real and important, but they are economic and social debates, not food safety issues.

Percent of planted crop acres



Note: HT indicates herbicide-tolerant varieties. Bt indicates insect-resistant varieties (containing genes from the soil bacterium *Bacillus thuringiensis*). HT and Bt corn and cotton categories include both the singular trait as well as varieties with overlapping HT and Bt traits, otherwise known as stacked traits.



CONSENSUS IS NOT JUST STRONG, IT IS GLOBAL

WHO: GM foods on the market are not likely to present risks.

FAO/WHO Codex Alimentarius: Established international safety assessment standards for GM foods.

EFSA (EU): Approved GMOs are “as safe as their conventional counterparts.”

US National Academies: No evidence GM foods are riskier than conventional.

Royal Society (UK): “No evidence that a crop is dangerous simply because it is GM.”

European Commission (EU): GMOs are not inherently riskier.

Health Canada: GM foods are as safe and nutritious as non-GM foods.

FSANZ: GM foods approved only after extensive safety checks; approved varieties are safe.

Ministry of Agriculture and Rural Affairs (MARA) (China): GM staple food crops, like corn and soybean, gene-edited rice, and other approved varieties are safe.

This broad alignment is rare in science, underscoring how robust the evidence is. Even India has allowed genetic editing SDN1/SDN2.





Deepak Pareek

me@dpareek.com



WWW.LINKEDIN.COM/IN/DPAREE



WWW.FACEBOOK.COM/PAREEK.DEEPAK



WWW.YOUTUBE.COM/@SEED2SPACE