

Mains Master

What Swaminathan panel said

Context:

- **Farmer Protests:** Thousands of farmers from Punjab are protesting, demanding a legal guarantee for Minimum Support Price (MSP) for all crops and the implementation of pricing based on the Swaminathan Commission's recommendations. These protests highlight the ongoing debate about farmer income and the role of MSP in ensuring their livelihood.
- **Swaminathan Commission:** Established in 2004 under the leadership of agricultural scientist M.S. Swaminathan, the commission aimed to address farmer distress and suggest strategies for improving their income and livelihood. Their recommendations covered various aspects of agriculture, including pricing, marketing, and infrastructure development.

Background:

- **Five Reports:** Between 2004 and 2006, the Swaminathan Commission submitted five comprehensive reports totaling 1,946 pages. These reports analyzed various challenges faced by farmers and proposed solutions across different areas.
- **Farmer Welfare Focus:** While the current protests focus primarily on MSP, the Swaminathan Commission took a broader approach, recognizing the need for holistic improvements in farmer welfare. Their recommendations aimed to enhance productivity, profitability, and sustainability of agriculture, leading to improved livelihoods for farmers.

Swaminathan Commission's MSP Recommendations:

- **No Legal Guarantee:** The commission did not recommend a legal mandate for MSP, emphasizing the need for flexibility and considering various market factors. However, they advocated for stronger implementation and improvement in the existing system.
- **C2+50% Formula Not Endorsed:** The contentious C2+50% formula, which demands MSP to be at least 50% higher than the total cost of production (including imputed costs), was not directly endorsed by the commission. Their focus was on ensuring remunerative prices that account for various cost factors.
- **Improved Regional Implementation:** The commission recognized the disparity in MSP implementation across regions. They called for better mechanisms to ensure farmers across the country receive fair prices for their produce.
- **Considering Additional Cost Factors:** The current MSP calculation primarily focuses on the weighted average cost of production (A2+FL), excluding imputed costs like family labor and rent on land. The commission recommended considering these factors in future MSP determination.
- **MSP as Procurement Floor:** They suggested using MSP as the minimum price for both government and private procurement, ensuring farmers receive at least that amount for their produce. Additionally, they advocated for adjusting the procurement price based on cost escalation after the initial MSP announcement.
- **Autonomous CACP:** The commission emphasized the need for an independent Commission for Agricultural Costs and Prices (CACP) to recommend remunerative prices based on comprehensive cost analysis and market dynamics.
- **Remunerative Pricing:** Instead of a fixed formula, the commission aimed for a system that ensures farmers receive remunerative prices that cover their costs and provide a reasonable profit margin.
- **Farmers' Income Parity:** Their long-term vision was to ensure farmers' income is comparable to other sections of society, like civil servants, reflecting the critical role they play in food security and the national economy.

Current MSP Calculation:

- **A2+FL Costs:** The current system primarily considers the weighted average cost of production (A2+FL), which includes actual expenses incurred by farmers for labor, inputs, and machinery.
- **Imputed Costs Excluded:** The system does not account for imputed costs like the value of unpaid family labor and rent on owned land, potentially underestimating the true cost of production.
- **Risk & Other Factors Ignored:** Additional factors like market risks, marketing expenses, and post-harvest losses are not explicitly considered in the current MSP calculation.

Overall Outlook:

- **Broader Focus:** While the current protests highlight the MSP issue, the Swaminathan Commission offered a wider range of recommendations for improving farmer welfare beyond just pricing.
- **Gaps in Implementation:** The current MSP calculation differs from the commission's recommendations in several aspects, suggesting room for improvement in implementation.
- **Ongoing Debate:** The debate on a legal guarantee for MSP and the C2+50% formula continues, with various stakeholders proposing different approaches to ensure fair pricing for farmers.

Can India be a global refining hub?

Overview:

- **Current Status:** India boasts the **4th largest** refining industry globally, boasting a capacity of **254 Million Metric Tonnes Per Annum (MMTPA)**. However, this masks a significant dependence on imports, with **85% of crude oil needs** sourced externally.
- **Government Vision:** Recognizing the opportunity presented by limited new Western refinery projects due to environmental concerns, the Indian government aims to transform the nation into a global refining hub.

Opportunities:

- **Domestic Demand Boom:** India's domestic demand for refined products is projected to surge, reaching 8.1 Million Barrels Per Day (MMb/d) by 2045. This presents a significant opportunity for domestic refiners.
- **Geopolitical Advantage:** Western sanctions against Russia have created a gap in the refined products market. India's ability to import Russian crude and refine it could position the nation as a key supplier to Western consumers.
- **Balance of Payments:** By strategically balancing crude oil and product imports and exports, India has the potential to improve its balance of payments and strengthen its economic position.

Historical Development:

- **Significant Growth:** Since 1998, India's refining capacity has witnessed remarkable growth, jumping from 62 MMTPA to 254 MMTPA.
- **Unmet Target:** In 2015, Prime Minister Modi set an ambitious goal of reducing import dependence by 2023, but this target remains unachieved.
- **2030 Vision:** Undeterred, the current target aims to increase refining capacity to 450 MMTPA by 2030.

Challenges:

- **Securing Crude:** Meeting the growing demand for refined products requires securing long-term crude oil supplies, which presents a significant challenge given India's high import dependence.
- **Balancing Growth and Sustainability:** While expanding refining capacity offers economic benefits, it's crucial to balance this growth with net-zero goals and energy security concerns. Export-focused expansion might not align with these goals.
- **Financing Greenfields:** New greenfield refineries have long gestation periods and require substantial investments. Attracting financing for these projects can be challenging, especially in a climate-conscious world.



Present Status:




- **Net Exporter:** Currently, India acts as a net exporter of refined products, with exports close to 1 MMB/d in 2022.
- **Rising Import Dependence:** Despite being a net exporter, India's crude oil import dependence continues to rise, reaching around 90% in 2022.
- **Strategic Partnerships:** Building and maintaining strong strategic relationships with major oil producers and developing strategic storage facilities are crucial for energy security.

Becoming a World Leader:

- **Long-Term Strategy:** To truly become a global refining leader, India needs a consistent and long-term strategy that carefully navigates diplomatic relations, economic interests, and the need for diverse energy sources.
- **Multi-Pronged Approach:** This strategy could involve a combination of efforts like reviving domestic oil production, promoting biofuels, encouraging electric vehicle adoption, and forming strategic partnerships with key oil producers.
- **Learning from Others:** China's approach of limiting product exports and managing refinery capacity additions offers valuable lessons for India's growth strategy.
- **Unique Challenges:** However, India's unique growth trajectory, job market considerations, and fiscal pressures require a tailored approach that differs from China's model.

Prelims Booster

Red Teaming

-  OpenAI, backed by Microsoft, introduced Sora, a revolutionary software capable of generating minute-long videos based on text prompts, marking a groundbreaking development with significant implications for cybersecurity, particularly in the realm of red teaming.
-  Red teaming, in the context of cybersecurity, serves as a proactive security risk assessment service, with authorized ethical hackers emulating sophisticated attackers to gauge an organization's ability to resist targeted attacks with specific objectives, going beyond traditional security testing services like vulnerability assessments and penetration testing.
-  Vulnerability assessments and penetration testing focus on technical flaws within a network, while red team exercises, enhanced by tools like Sora, provide a comprehensive evaluation of an organization's overall IT security posture, offering actionable insights into how well an organization's people, processes, and technologies can withstand sophisticated cyber threats.

China's 'defence villages' along LAC, which it is populating



Occupation of Xiaokang Border Defence Villages:

Chinese people have started occupying Xiaokang border defence villages along the India-China border, particularly in the northeastern region, with construction beginning in 2019 and residents now moving into villages along the Line of Actual Control (LAC), opposite the Lohit Valley and the Tawang sector of Arunachal Pradesh.



Xiaokang Border Defence Villages Overview:

China has constructed 628 Xiaokang or "well-off villages" along India's borders with the Tibet Autonomous Region over the past five years, consisting of mostly double-storey, large, and spacious buildings, with their exact purposes remaining unclear but considered dual-use infrastructure, raising concerns from a defense perspective.



New Law on China's Land Borders:

A new law on China's land borders, effective from January 1, 2022, emphasizes strengthening border defense, supporting economic and social development, improving public services and infrastructure, and promoting coordination between border defense and socio-economic development in border areas, covering the Xiaokang border defence villages program.



India's Response - Vibrant Villages Programme:

In response, the Indian government launched the Vibrant Villages Programme in 2022 to develop border villages into modern villages and tourist attractions, building on the existing Border Area Development Programme (BAPD) under the Union Ministry of Home Affairs, with plans to develop 663 border villages in the first phase, including 17 villages along the China-India border selected for the pilot project.






Infrastructure Development by China in India's Northeast:

China has been consistently developing infrastructure along the Line of Actual Control, including in Arunachal Pradesh's Tawang region and the Siang Valley, focusing on projects such as the construction of roads, bridges, and houses to improve connectivity through passes, prompting India to focus on strengthening its border infrastructure, constructing new roads, bridges, and helipads, and developing alternate routes to the Line of Actual Control, particularly in the northeast.

ISRO's 'naughty boy' rocket to launch India's latest weather satellite today



- The Geosynchronous Launch Vehicle (GSLV), nicknamed "naughty boy" for its spotty record, is set to lift off at 5.35 pm Saturday from the Satish Dhawan Space Centre in Sriharikota, marking its 16th mission overall and its 10th flight using the indigenously developed cryogenic engine.
-  The mission's success will be crucial for the GSLV, as it is scheduled to carry the Earth observation satellite, NISAR, later this year, jointly developed by NASA and ISRO. NISAR aims to map the entire globe in 12 days and provide "spatially and temporally consistent" data for understanding changes in Earth's ecosystems, ice mass, sea level rise, and natural hazards such as earthquakes and tsunamis.
-  INSAT-3DS, a 2,274 kg satellite with a mission life of 10 years, will be launched into a 36,647 km x 170 km elliptical orbit. Once operational, it will provide advanced weather observations of both land and ocean surfaces, aiding in short-range forecasts of extreme weather events, visibility estimation for aviation, and studying forest fires, smoke, and snow cover.
-  At least four of the 15 launches using the GSLV so far have been unsuccessful, highlighting the significance of the upcoming mission's success. In comparison, the Polar Satellite Launch Vehicle (PSLV) has had only three unsuccessful missions out of 60, and the successor LVM-3 has had no failures in its seven missions, reflecting the importance of achieving a successful launch for the GSLV.

RBI must probe loan-to-value norms: gold loan firms



Loan to Value (LTV) Concept:

The Loan to Value (LTV) ratio measures the proportion of the loan amount to the value of the asset used as collateral, serving as a key metric for lenders to assess the risk of lending money. A lower LTV indicates less risk for the lender, while a higher LTV indicates more risk.



Formula:

$$LTV = (\text{Loan Amount} / \text{Collateral Value}) * 100\%$$



Interpretation:

Low LTV (less than 50%): Indicates low risk for the lender, potentially resulting in better loan terms and interest rates due to the collateral value significantly exceeding the loan amount.

High LTV (more than 80%): Indicates higher risk for the lender, potentially leading to higher interest rates, stricter loan terms, or the requirement for additional collateral as the loan amount approaches or exceeds the collateral value.



Applications:

Most commonly used for secured loans, such as mortgages (home loans), auto loans, and some business loans, with lenders utilizing LTV to determine eligibility for the loan, set interest rates and loan terms, and decide whether to require private mortgage insurance (PMI) for mortgages.



Important Factors:

LTV limits: Different lenders may have their own LTV limits based on the loan type, creditworthiness, and other factors.

LTV changes over time: As the loan is repaid and the collateral value changes, the LTV will decrease, reflecting the dynamic nature of this metric.

