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40 🌽 4A: AGRICULTURE

40.1.1 Target UPSC-2025-26 with Unacademy Plus subscription!



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40.1.2 🤝🍎 Coop Societies → National Cooperative Export Limited (NCEL, 2023)

- NCEL is registered under the Multi-State Cooperative Society Act, 2002
- Founders/Owners? AMUL, IFFCO, KRIBHCO, NAFED, National Co-operative Development Corporation (NCDC).
- Usually, the profits from agri-exports do not reach the farmers, but NCEL aims to give at least 50% of the export profits to farmers!



NCEL: controversy on Dubai-Onion?

- Critics argue that NCEL purchased the onions from Indian farmers at a very cheap price (₹12–15 per kg) → onions are sold at 10x price ₹120/kg in Dubai stores.
- But, NCEL defends its fake news/wrong data-interpretation. Bcoz, the price of onion in Dubai varies depending on origin [such as ‘Indian’, ‘Egyptian’, ‘Pakistani’], VAT tax, shipping cost, shopping malls’ staff salaries, air-conditioning expenses etc.

40.2 AGRI-INPUT → LAND → COOPERATIVE VERSUS COLLECTIVE FARMING



Parameter	Cooperative Farming सहकारी खेती	Collective Farming सामूहिक खेती
Ownership (जमीन का स्वामित्व/ मालिकी)	Farmer continues to remain the owner of the individual farmland. Only the ‘activity’ of farming is done in a cooperative manner.	Collective/social ownership of land, livestock, and labor. Farmers were allowed to retain/own very small plots to grow crops in order to meet their daily requirements. e.g. Kolkhoz model in USSR (Soviet Russia)
Output (पैदावार)	Better	Less. e.g. Russian Kolkhoz model farmers carelessly packed the rotten fruits with the fresh fruits, despite knowing that rotten fruit will spoil the fresh fruit because they did not own the farm so they became lazy/irresponsible/demotivated

40.2.1 Coop Farming → Small Farmer Large Field (लघु कृषक बड़े खेत)

- A pilot project by International Rice Research Institute (IRRI) in two villages of Odisha.
- Small landholders join and decide to grow 1-2 crop, synchronize all the agricultural operations (seed to selling) as a group, and gain higher bargaining power while dealing with seed/input-sellers, APMC-grain buyers etc



we'll grow same crop, buy its seeds together, sell its output together.

एकजुट होकर एक ही फसल उगाएंगे, उसके बीज खरीदेंगे और उपज बेचेंगे,



difficult to exploit them
in selling expensive seeds or buying their grains dirt cheap.
मैं इनका शोषण आसानी से नहीं कर पाऊंगा

MCQ. Which one of the following best describes the concept of 'Small Farmer Large Field'?

(निम्नलिखित में से कौन-सा एक, 'लघु कृषक बड़े खेत' की संकल्पना का सर्वोत्तम वर्णन है?) (Prelims-2023)

- (a) Resettlement of a large number of people, uprooted from their countries due to war, by giving them a large cultivable land which they cultivate collectively and share the produce
- (b) Many marginal farmers in an area organize themselves into groups and synchronize and harmonize selected agricultural operations.
- (c) Many marginal farmers in an area together make a contract with a corporate body and surrender their land to the corporate body for a fixed term for which the corporate body makes a payment of agreed amount to the farmers
- (d) A company extends loans, technical knowledge and material inputs to a number of small farmers in an area so that they produce the agricultural commodity required by the company for its manufacturing process and commercial production

40.2.2 Types of Farming: Truck Farming / Market Gardening

- Truck farming / market gardening = small-scale farm producing fruits, vegetables, and flowers to sell to urban consumers and restaurants.
- These farmers operate from urban or suburban areas.
- Famous areas: Netherlands (Tulips flowers), northwest Europe, northeastern United States of America, and the Mediterranean regions.

Wikipedia & other Websites

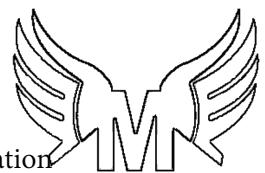
The word 'truck' does not refer to the transportation truck but comes from the French word troquer, which means "barter" or "exchange"

NCERT Class 12 Funda of Human Geo

The distance of truck farms from the market is governed by the distance that a truck can cover overnight, hence the name truck farming

MCQ. Which of the following statements about 'Truck farming' is/are correct? (EPFO-2023)

- 1) Growing vegetables around urban centres to meet the daily demand of people is known as Truck Farming.
 - 2) It is governed by the distance a truck can cover overnight between the farm and the market.
- Codes: (a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2



💡FAQ: then weather statement2 is right or wrong? Ans. I will prefer to go by the interpretation given in NCERT.

40.2.3 → Types of Farming” ✎ HOMEWORK NCERT

- Read NCERT Class12 Fundamentals of Human Geography ch.05 : subtopic Agriculture: <https://ncert.nic.in/ncerts/l/legy105.pdf>
- for the terms like mixed farming, primitive farming, factory farming, viticulture, cooperative farming et cetera

40.2.4 → Water Schemes ✎ Per drop more crop (PDMC)

Boss? Department of Agriculture & Farmers' Welfare

BEFORE	AFTER
PDMC was a sub-scheme of “Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)” from 2015–16 to 2021–22	2022–23: PMDC shifted under the Rashtriya Krishi Vikas Yojana (RKVY).

- Type? Centrally Sponsored Scheme (CSS). Cost-sharing Union:states = 60:40 / 90:10 depending on type of State.
- States can obtain extra loans from NABARD's Micro Irrigation Fund (MIF). Union to give 3% interest subsidy on loans taken by States from NABARD.

Category	subsidy to purchase micro irrigation equipments.
Small & Marginal	55%
Other Farmers	45%

AB CD !? MCQ. Find wrong about the PDMC scheme (Per Drop More Crop)? (GeoSci'24)

- This scheme focuses on enhancing water use efficiency at farm level through micro-irrigation.
- The cost is shared by the Central Government and the State Governments in the ratio of 50 : 50.
- It is a Centrally sponsored scheme.
- This scheme is implemented under Rashtriya Krishi Vikas Yojna.

40.2.5 Nano-DAP in 🌸 Interim-Budget-2024:

- DAP, or di-ammonium phosphate, is the second most commonly used fertiliser in India after urea.
- It is high in phosphorus (P) that stimulates root development — without which plants cannot grow to their normal size
- That's why, DAP is applied just before, or at the time of sowing.
- 2023: IFFCO launched Nano DAP liquid @ ₹600 for 500 ml. Which is much cheaper than powder bag @₹1350/50kg.
- 🌸 Interim-Budget-2024: we'll promote the use of Nano-DAP across all parts of India.

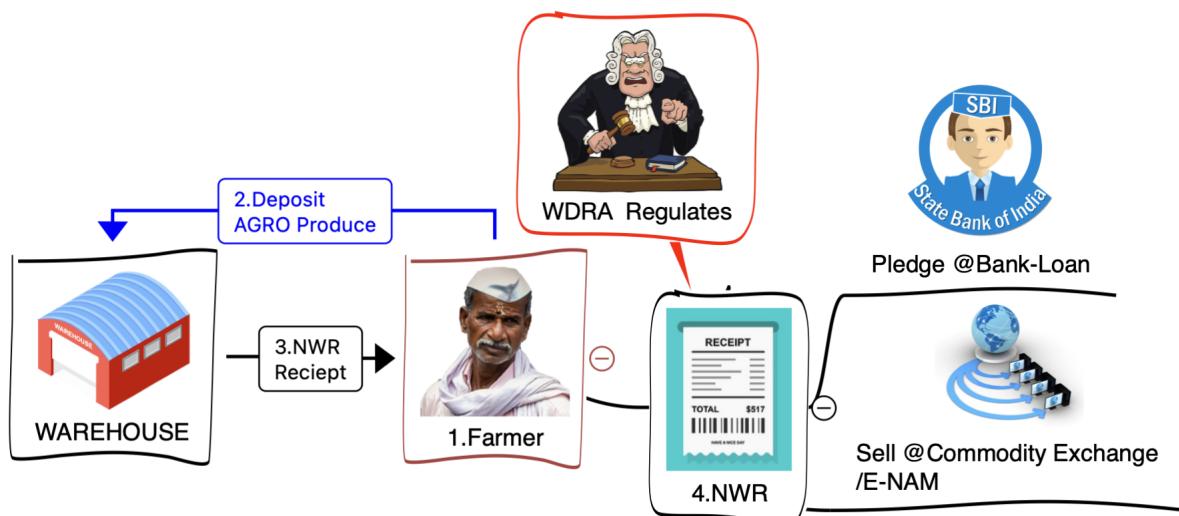
40.2.6 🛣 Agri-Drone buying ke liye Subsidies

Scheme Sub-Mission on Agricultural Mechanization (SMAM) by Agro Ministry.



Beneficiary	Amount
If Agriculture graduates wants to set up drone hiring centre	50% subsidy. Max limit: Rs. 5 lakh
woman/SC/ST/Small Marginal / NorthEast farmer wants to buy drone	same as above
Rural entrepreneur cooperative society wants to buy drones	40% subsidy. Max limit: Rs. 4 lakh
Women self help group (SHG) wants to buy drones.	- If price of Drone + accessories = Rs.10 lakh then Union to pay 80% subsidy (8 lakh) - Drone pilot to get ₹15,000 salary; co-pilot ₹10,000

40.2.7 💰 Agri-Finance → Negotiable Warehouse Receipts (NWR)



- ⇒ **Boss?** Ministry of Consumer Affairs, Food & Public Distribution → Statutory Body Warehousing Development and Regulatory Authority (WDRA: भांडागारण विकास एवं विनियामक प्राधिकरण)- law in 2007.
- ⇒ Farmer deposits his produce into WDRA registered warehouses and gets negotiable warehouse receipt (NWR; परक्राम्य गोदाम रसीद). He can use it in two ways
- Pledge it in the banks to obtain loans for the next cropping cycle. OR
 - Trade it via the commodity exchange markets or electronic National Agriculture Markets (e-NAM).
- ⇒ **Benefit?** NWR prevents the distress sale of agriculture produce. Farmer can wait and watch for the prices to improve before selling, while his crop is safely stored in the warehouse.

40.2.8 🏙 Warehousing for small farmers: PM Bhai (2023)

- PM-Kisan Bhai (Bhandaran Incentive) scheme. Boss? Agri Ministry



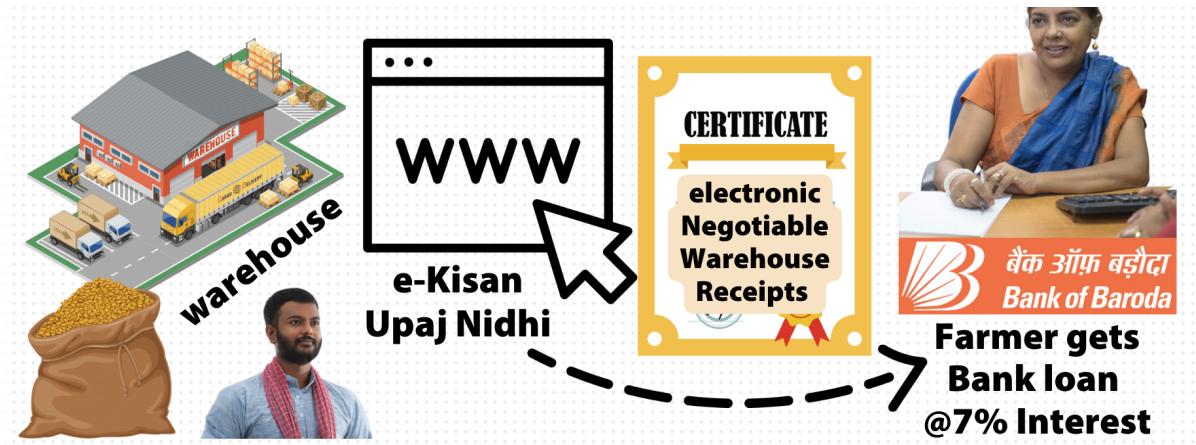
- To help small and marginal farmers, who do not have money to store their produce in warehouses → so they are unable to wait for better prices and forced to sell quickly (छोटे और सीमांत किसान जिनके पास गोदाम में अलग रखने के लिए पैसा नहीं होता।)

Full details are yet to be worked out. Concept is following as per news-reports:
- 1) Farmers will be given subsidy to pay for the warehouse rent.
- 2) Farmers who have stored their produce in the warehouse= these farmers will get additional loan interest subsidy on Kisan credit card (KCC) loans.

40.2.9 🏭 e-Kisan Upaj Nidhi warehousing scheme (2024)

- Boss? Warehousing Development and Regulatory Authority (WDRA)
- To ease farmers' warehousing logistics problem

Matter	BEFORE	AFTER
No. of registered warehouses?	India has 1 lakh agri-warehouses but only about 5,500 are registered with WDRA.	increase the number of registered warehouses.
Warehouse security Deposit on farmer	3%	1%
Farmer forced to sell produce at cheap price?	Yes, bcoz warehousing was expensive & he cud not get bank loans easily	problem solved, via following process ↘



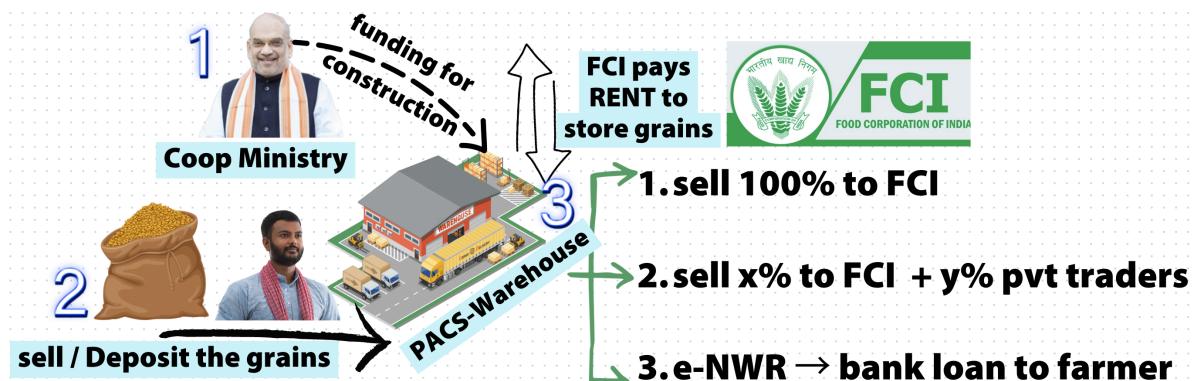
- Farmer deposits produce/crops at WDRA registered warehouses.
- warehouse generates electronic Negotiable Warehouse Receipts (e-NWRs)
- Via 'e-Kisan Upaj Nidhi' Portal → farmer shares e-NWR with bankers to get post-harvest loans @7% Interest, without any collateral **
- FAQ: but since farmer is sharing e-NWR with banker - isn't that a collateral? Ans. I have copied the statements as given in Press release. They didn't bother to clarify/explain it.



40.2.10 🏭 World's largest grain storage programme by Coop Ministry

Country	Storage Capacity as (%) of total production
India	47% (target: 100% by 2047)
Others	USA: 161%, Brazil: 149%, China: 107%,

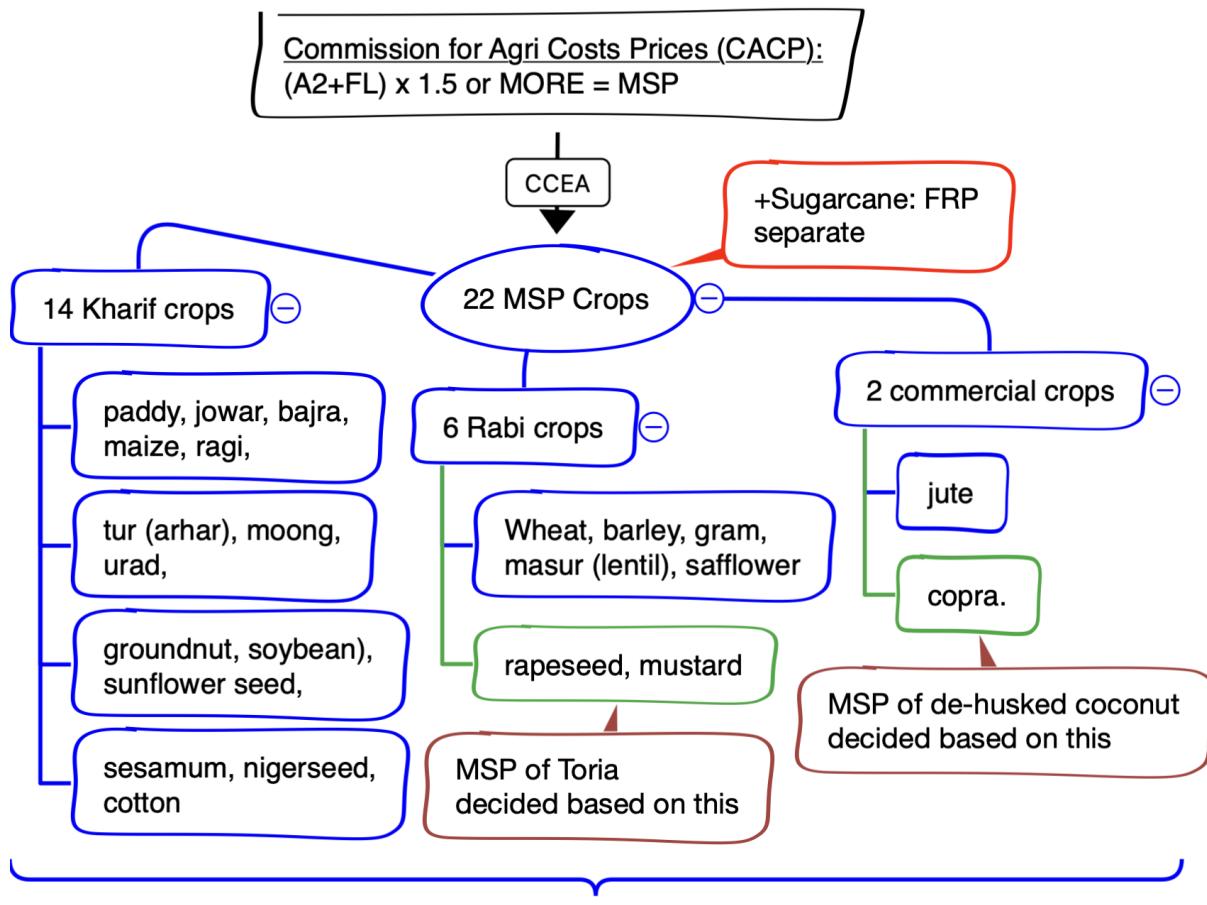
- Boss? Ministry of Cooperation ☐ National Cooperative Development Corporation (NCDC). Plus, support of NABARD, FCI, Central Warehousing Corporation (CWC).
- Funding / support given to Primary agricultural credit societies (PACS) to construct warehouse.
- FCI to pay rent to PACS-warehouses, IF FCI buys MSP-crops & stores them in it.
- Thus, Creation of adequate food grain storage capacity at PACS level will help in reduction of post-harvest loss, enabling farmers to earn better prices/faster bank loans.



- The pilot project @11 PACS in 11 states - Uttar Pradesh (Mirzapur), Madhya Pradesh (Balaghat), Tamil Nadu (Theni), Tripura (Gomati), Uttarakhand (Dehradun), Rajasthan (Sri Ganganagar), Maharashtra (Amravati), Assam (Kamrup), Gujarat (Ahmedabad), Karnataka (Bidar) and Telangana (Karimnagar).
- 👉 FAQ: do I have to be memorise the location? Ans. Not for this scheme but as for GK-for geography/mapping.



40.3 🌽🛒👤🌾 AGRI-SELLING → MINIMUM SUPPORT PRICES (MSP)



Crop Diversification: How to

⬇️ wheat, rice, sugarcane production → Give
 >50% MSP on (Cost Price) for other crops.

Agro Ministry's Commission for Agricultural Costs and Prices (CACP: कृषि लागत और मूल्य आयोग) recommends MSP (& FRP for sugar) → Cabinet Committee on Economic Affairs (CCEA: आर्थिक मामलों की कैबिनेट समिति) chaired by PM approves & announces MSP.

CACP's computation method is →

A2	Actual costs directly incurred by the farmer on seeds, fertilizers, pesticides, hired labour, depreciation on farm buildings & machinery, interest on working capital, diesel/electricity for tractor/ pump sets etc.
FL	Imputed cost of (unpaid) family labour.
$(A2+FL) \times 1.5 \text{ times}$ MINIMUM.	This will be the official MSP. (from Budget-2018 onwards). So farmer sees 50% profit on this cost of production.

** In addition, MSP of Toria (a type of oilseed crop) fixed on basis of rapeseed-mustard and MSP of de-husked coconut (छिलका उतारा गया नारियल) fixed on the basis of the MSP of copra. But for MCQ if asked then the safe number is '22'.



**AB
CD MCQ.** How many of these statements are correct? (Prelims-2023)

1. The Government of India provides Minimum Support Price for niger (*Guizotia abyssinica*) seeds.

(भारत सरकार काले तिल [नाइजर (गुइजोटिया एबिसिनिका)] के बीजों के लिए न्यूनतम समर्थन कीमत उपलब्ध कराती है।)

2. Niger is cultivated as a Kharif crop. (काले तिल की खेती खरीफ की फसल के रूप में की जाती है।)

3. Some tribal people in India use niger seed oil for cooking. (भारत में कुछ जनजातीय लोग काले तिल के बीजों का तेल भोजन पकाने के लिए प्रयोग में लाते हैं।)

Codes: (a) Only one (केवल एक) (b) Only two (केवल दो) (c) All three (सभी तीन) (d) None (कोई नहीं)

40.3.1 MSP decision Factors apart from $(A_2 + FL) \times 1.5$ formula

Although the cost ($A_2 + FL$) is an important determinant of MSP, the MSP pricing policy is NOT rooted in ONLY 'cost plus 50% profit'- Other factors are also considered as well. (उत्पादन की लागत के अलावा अन्य कारकों पे भी गौर किया जाता है)

Factor	Notes, if any
Cost of Production (CoP)	$CoP = (A_2 + FL)$. Ideally, the farmer should get a 50% profit over this cost of production, as learned in the previous section.
Demand and supply	e.g. to address the shortage of pulses, the govt should encourage farmers to grow pulses by offering better MSP on them.
Price trend in the domestic and international markets	e.g. if there is a shortage of Soybean in India, while Soybean oil from Argentina becomes expensive, then India should offer better MSP to farmers to encourage them to grow more soybean.
Inter-crop price parity	e.g. to encourage farmers to shift from wheat/rice to millets, the govt should offer better MSP on millets.
Ensuring rational utilization of natural resources like land and water	same as above- rice vs millets
MSP impact on consumers	e.g. MSP should not be so high for rice that all farmers stop growing tomatoes → tomato shortage
Terms of trade between agricultural and non-agricultural sectors (कृषि और गैर कृषि क्षेत्र के बीच व्यापार की शर्तें/स्थिति)	the ratio of agri prices to industrial prices. Basically, the agri price ratio should not become very low or very high compared to mfg/service industries. Otherwise, it may result in people shifting to a single industry → shortage of workers in other industries.

40.3.2 Agri-Selling → MSP → Cotton purchase by CCI

- 1970: Cotton Corporation of India (CCI) registered under the Companies Act.
- CCI's Boss? CCI is under admin control of Ministry of Textiles,



- CCI's function? Purchase cotton @MSP, whenever the market prices of cotton fall below the minimum support prices (MSP).
- CCI buys cotton without any quantitative limits. (जितना किसान बेचे उतना दे धनधान खरीद लेते हैं।)
- HQ? Belapur, Navi Mumbai (Maharashtra). - Major zones covered by CCI: 🌟

Northern Zone	Central Zone	Southern Zone
Punjab	Gujarat	Andhra Pradesh
Haryana	Maharashtra	Telangana
Rajasthan	MP	Karnataka
	Orissa	Tamil Nadu

40.4 📜🌾👤🔍 AGRICULTURE PRODUCTION & PROCESSING → OTHER SCHEMES

40.4.1 🎶 Bharat Campaign under Agriculture Infrastructure Fund

- Agri ministry's campaign / competition / training program for bankers.
- To ensure bankers give maximum loans and awareness generation for Agriculture Infrastructure Fund scheme.

BHARAT = Banks Heralding Accelerated Rural & Agriculture Transformation (full form not imp)

40.4.2 🎶 Ghar Ghar KCC (2023)

- Awareness drive to give Kisan Credit Card (KCC) to every eligible farmer across India-including fish-farmers and dairy farmers. (REF Pillar1D3 for more on KCC)
- Boss? Ministry of Agriculture with help of RBI, NABARD, Bankers

40.4.3 → Horticulture ✅ CDP program by NHB

- Boss? Agri Ministry → National Horticulture Board (NHB. Setup @1984 @Gurugram Haryana).NHB is an autonomous society under the Societies Registration Act 1860.
- NHB is running Horticulture Cluster Development Program (CDP).
- Type? Central sector scheme (= states not required to contribute money.)
- Target? 9 lakh hectares of area with 10 lakh farmers covered through all 55 clusters. e.g.

Crop	Regions
Apple	Shopian (J&K) and Kinnaur (H.P.)
Mango	Lucknow (U.P.), Kutch (Gujarat), Mahbubnagar (Telangana)
Banana	Anantpur (A.P.) and Theni (T.N.)
Grapes	Nasik (Maharashtra)
Pineapple	Siphahijala (Tripura),
Pomegranate	Solapur (Maharashtra) and Chitradurga (Karnataka),



Turmeric

West Jaintia Hills (Meghalaya)

40.4.4 🍒 Horticulture → CDP-SURAKSHA for Instant subsidy via E-Rupi (2024)



- Boss? National Horticulture Board (NHB).
- Cluster Development Programme (CDP) → System for Unified Resource Allocation, Knowledge, and Secure Horticulture Assistance (SURAKSHA)
- To give instant subsidy to farmers for purchasing horticulture seed/planting material online, with help of E-Rupi vouchers.
- Partner-banks: HDFC Bank, ICICI Bank, SBI, Bank of Baroda - will generate e-RUPI vouchers using NPCi's technology.
- What is E-Rupi? (Ref: Pillar#1A1 Digital payment)

40.4.5 Atmanirbhar Oil Seeds Abhiyan in Interim-Budget-2024:

- Target: mustard, groundnut, sesame, soybean, and sunflower.
- develop high-yielding varieties, promote modern farming techniques, market linkages, procurement, value addition, and crop insurance.

40.5 AGRO ALLIED : ANIMAL HUSBANDRY

40.5.1 🏆 Golden jubilee event of Amul

- 1973: Gujarat Cooperative Milk Marketing Federation (GCMMF) formed.
- Associated famous personality: Verghese Kurien (1921 – 2012), known as the Father of the White Revolution in India.
- 2023–24: Amul 50 years completed. Amul is the world's 8th largest dairy in the world.

40.5.2 🐟 Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (2024-Feb)

- It is a Central Sector Sub-scheme under the Pradhan Mantri Matsya Sampada.
- Central Sector = 100% funding by Union. States need not give money.



- for supporting fisheries micro and small enterprises
- Target: investment of over Rs. 6,000 crores in next 4 years from FY 2023–24 to FY 2026–27.
- registration of unorganized fisheries enterprises at National Fisheries Sector Digital Platform
- helping them get loans from bank/NBFCs.
- helping them buy insurance for aquaculture.
- performance grants for fishery product safety and quality control systems.

40.5.3 PM Matsya Sampada Yojana → Interim-Budget-2024:

- enhance aquaculture productivity from existing 3 to 5 tons per hectare
- double exports to ? 1 lakh crore
- generate 55 lakh employment opportunities in near future
- Five integrated aquaparks will be setup.

40.5.4 Agri revolutions:

Color / रंग	Objective / उद्देश्य
“Pink Revolution”	for meat and poultry industry, under Ministry of food processing. Some experts say it is also related with the fish/prawn/shrimp
Yellow revolution	oilseed
Silver revolution	egg / Cotton / Fibre
Golden revolution	Fruits / Honey Production / Horticulture / Jute.
Black revolution	Indian government planned to boost the production of petroleum by mixing bioethanol with petrol and biodiesel with diesel.
Evergreen revolution	increasing in productivity using technology BUT without harming environment. Concept given by M S. Swaminathan
Orange Revolution	Ukraine protests about corruption, democracy (2004)
Tulip Revolution	Kyrgyzstan corruption, democracy (2005)
Jasmin Revolution	Tunisia about corruption, democracy (2010)

MCQ. Find correct pairs of revolution in agriculture? (CDS-2023-ii)

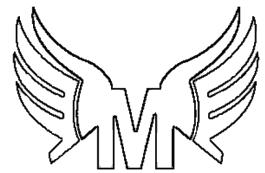
1) Pink revolution : Shrimp production 2) Yellow revolution: Oilseeds production

3) Black revolution : Biodiesel production 4) Golden revolution: Egg production

Codes: (a) 1, 2 and 3 (b) 2 and 3 only (c) 1 and 3 only (d) 2 and 4 only

40.6 AGRICULTURE → RESEARCH & EDUCATION, EXTENSION SERVICES





40.6.1 Agri Census

- 1970: Started Agriculture Census in India as part of FAO's World Census of Agriculture.
- Nodal? Agricultural Ministry, but data collection done by National Sample Survey Office (NSSO) under Ministry of Statistics and Programme Implementation (MOSPI)
- Duration: quinquennially = every 5–5 years from 1970. However, 2020 delayed by Corona. So, Agri-Census 2021–22 (phase-1) may be completed by 2023-December.

40.6.2 Agriculture year versus Financial Year

Financial year	Agriculture year
1/April to 31/March	1/July to 30/June

For Taxation, accounting purpose For agriculture census / survey / data collection

40.6.3 Digital Crop Survey system

BEFORE	From 2024-July
Crop survey conducted manually with pen and paper resulting into delays and will use GPS enabled errors. (सर्वेक्षण कागज़ और पेन से किया जाता था इसलिए गलतियों का अवकाश ज्यादा।)	mobile apps.

Guidelines/manual released by Agriculture ministry → Economics, Statistics and Evaluation Division (ESED)

FAQ: what is survey vs census?

- Census = data collection of entire population/area. (जनगणना)
- Survey = e.g. suppose only 10% of entire population/area sample taken.(सर्वेक्षण)

40.7 AGRI EXTENSION: NOTABLE APP / PORTALS - TRUCKLOAD OF

Note: some of the older apps / portals like MKisan / Kisan Suvidha etc = i've shifted to Mains HDT.

40.7.1 WINDS Portal (2023)

- Weather Information Network Data Systems (WINDS) portal.
- For weather data analytics related to agri for disaster management, crop insurance et cetera.
- Boss? Agri ministry with help of Ministry of Earth Sciences.

40.7.2 Kisan Rin Portal (2023)

- A portal for farmer loan data, interest subvention etc. (Ref: Pillar#1D3 on farm loans)
- Boss? Agri ministry with help of finance ministry, RBI, NABARD etc.

40.7.3 UPAg Portal for Agri statistics

- UPAg = Unified Portal for Agricultural Statistics.
- Boss? Agri ministry - for data relate to crop area under cultivation, yield per hectare, prices, import-export etc.

40.7.4 Meri Fasal-Mera Byora Portal (2023)

- By Haryana Government - to procure 14 crops @MSP price viz. wheat, mustard, barley, gram, paddy, maize, bajra, cotton, sunflower, moong, groundnut, tur, urad and sesame.
- Haryana has become the first state in India to do so.

40.7.5 NBSS BHOOMI Portal

- Webportal showing agro-ecological region of India. by National Bureau of Soil Survey and Land Use Planning (NBSS&LUP)- it is a body under ICAR



40.7.6 Some More portals

Name	Objective
Krishi Rakshak Portal	to help the farmer file crop-loss compensation claim for Pradhan Mantri Fasal Bima Yojana (PMFBY)
(LMS)	Learning Management System (LMS): training and knowledge sharing about crop insurance and agricultural credit. With help of National E-Governance Division (NeGD).
SARTHI Ref Pillar1D3	To help farmers/villagers buy insurance for health, life, home, shop, agriculture machine etc. With help of United Nations Development Programme (UNDP). SARTHI can also be accessed on mobile via AIDE App
AIDE	An AI-based advisor offering personalized recommendations for crops, pest management, loan-insurance etc.
YES-Tech	Uses AI to detect crop diseases and predict yield.
Digi-Claim	Streamlines crop insurance claims and financial inclusion for farmers.
CROPIC	Connects farmers to markets, buyers, and agricultural information.

41 🤖🔧 MFG & SERVICES:

41.1.1 🤖🤝 GPAI – the new GANG for A.I. (2020-June)

- ⇒ Global Partnership on Artificial Intelligence (GPAI: आर्टिफिशियल इंटेलिजेंस पर वैश्विक भागीदारी).
- ⇒ **Founding members?** India, US, the UK, EU, Australia, Canada, France, Germany, Italy, Japan, Mexico, New Zealand, Republic of Korea, Singapore (भारत इस संस्था का एक स्थापक सदस्य है)
- ⇒ **HQ/Secretariat @Paris**, France. Supported by GPAI will be supported by a Secretariat, to be hosted by Organization for Economic Cooperation and Development (OECD).
- ⇒ GPAI annual summits: 2023:New Delhi, 2022:Tokyo, 2021:Paris.
- ⇒ 💰Budget-2023: we'll setup 3 Centres of Excellence for Artificial Intelligence for agriculture, health, and sustainable cities.

AB CD !? MCQ. Which of the following statements about GPAI is/are correct? (UPSC-Geosci'24)

1. It is a multi-stakeholder initiative, which aims to bridge the gap between theory and practice on AI by supporting cutting edge research.
 2. The Annual GPAI Summit was held at New Delhi in December 2023.
- Codes: (a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2



41.1.2 → Startup ☒ Network effect | Metcalf Rule Free Riders

Term	Meaning
Network effect	The more people who use a product or service, the more valuable it becomes for everyone involved. - e.g. Twitter / Facebook → more users → more companies want to show their advertisement → more ad-revenue for creators.
Metcalf's Law	basically similar to above “Network effect” for telecom companies. We will not go to exact rule as we are not preparing for the IES (Engineering) exam.
Free-riders	people who use a service without paying for it. This term is used in two context (1) in governance: people who don't pay any taxes and yet benefit from highways and public parks, etc. (2) in Startup/Biz: e.g. Person sits in Starbucks Cafe for an hour, to use its free Wi-Fi & Air-conditioner, but does not buy any coffee.

42 🎨 MFG & SERVICES → INTELLECTUAL PROPERTY RIGHTS



42.1 🎨 IPR → COPYRIGHT RELATED BODIES

42.1.1 🎭 Copyright office

- Boss? Education Ministry → Department of Higher Education → Copyright office → Registrar of Copyright. [Note: later, copyright office was shifted to commerce ministry → DPIIT Dept. But, in some books, the information is not updated.]
- Nature: statutory| quasi-judicial| full-time.
- Function? Registration of copyright.

42.1.2 🎭 Copyright Board

- Nature: statutory| quasi-judicial| part-time.
- Functions: (1) handle the dispute related to copyright registration. (2) Fix the royalty rates for music/books etc.

42.1.3 🎭 Intellectual Property Appellate Board (IPAB: बौद्धिक संपदा अपीलीय बोर्ड)

- 2003: It was setup to hear the appeals related to Trade Mark Act, GI Act, Patent Act, Copyright Act. (e.g. Copyright office → Copyright Board → IPAB).
- but later, govt felt that IPAB was not delivering fast justice. (तेजी से न्याय नहीं दे पा रहा था इसलिए सरकार ने इसे बंद कर दिया)
- 2021: IPAB abolished. Now the parties need to file appeals at High Court.



42.1.4 🎵 Copyright Act: automatic existence.

- Copyright comes into existence as soon as a work is created. No formality is required for acquiring it. (आप जैसे ही किसी कृति की रचना करते हैं, उस पर आपका कॉपीराइट अधिकार अपने आप बन जाता है. बिना किसी पंजीकरण करवाएं भी.)
- However, to establish ownership of copyright in court (for example, when fighting a piracy case), it's advisable to register your work with the copyright office. (हालांकि अदालत में अपनी कॉपीराइट अधिकार को साबित करने के लिए, यह सलाह दी जाती है, कि आप अपनी कृति का कॉपीराइट पंजीकरण करवाए।)

42.1.5 🎵 Copyright Act - covers following works

- (i) original literary, software, musical, and artistic works;
- (ii) cinematographic films;
- (iii) sound recording.

There is one more way to classify them, as per following table:

Type of work	Examples
Literary work	Pamphlets, Brochures, Novels, Books, Poems, Song Lyrics, Computer Programme
Artistic work	Drawings, Paintings, Sculpture, Architectural & Technical Drawings, Maps, Logos
Dramatic	Dance or Mime, Screenplay, Music, Sound Recording, Cinematographic films

42.1.6 Trademark Types

Type of work	Examples
(1) Conventional Trademark	Words, colour combination, label, logo, packaging, shape of goods, etc.
(2) Non-Conventional Trademark	1. Sound mark - e.g. unique starting musical sound in Apple laptop. 2. dynamic marks/ fluid marks e.g. (A) Google Doodle displayed on the top of the search engine. (B) Amul Girl in different clothes in newspaper cartoons.
(3) Smell and Taste trademark	e.g. Unique smell of Tide/Ariel detergent. But this type of trademark is not recognised under Indian laws.

42.1.7 🚀 Patent: Discovery versus invention

	Discovery खोज	Invention आविष्कार
Meaning	Process of highlighting an already existing thing	Ability to create something novel, or something unique
e.g.	Newton saw the apple fall and discovered gravity	Alexander Graham Bell invented telephone
Patentable?	No	Yes it can be patented.



42.1.8 🚗💡 IPR → 🚗💡 Digital India FutureLABS by MEITY (2024)

- Boss: Ministry of Electronics & IT → C-DAC (Centre for Development of Advanced Computing).
- Objective? collab between Government labs, Indian startups, large companies
- Sectors? Mobile, IT, electronics, Automobile.

42.1.9 🚗💡 IPR → 🚗💡 Interim-Budget-2024: R&D ke liye ₹1 lakh cr fund

- we'll setup ₹1 lakh crore fund for R&D.
- 50 years ke interest-free loans will be given to private sector to scale up research and innovation.

42.1.10 💣💡 ADITI Scheme by defence Ministry for R&D Grants to Startups (2024)

- Boss? Ministry of Defence → Department of Defence Production (DDP)
- iDEX (Innovations for Defence Excellence) framework → Acing Development of Innovative Technologies with iDEX (ADITI)
- Start-ups will get upto ₹ 25 crore grant for R&D in defence technology.

Some other schemes with similar features: (1) Defence India Start-up Challenge (DISC) (2) iDEX Prime (3) iDEX internship.

42.2 🚗📊 IPR → INDICES & RANKINGS



42.2.1 🚗📊 IPR Index → Global Innovation Index (GII: वैश्विक नवीनीकरण सूचकांक)

by WIPO, Cornell University (USA), Insead Business School (Paris).

- ✓ India's overall rank continuously 📈 from 81 (2015) to 40 (2023). (सतत रूप से अपना रैंक बेहतर हुआ है)
- ✓ GII ranks a country based on performance across 7 pillars viz. 1) knowledge and technology outputs, 2) market sophistication, 3) human capital and research, 4) institutions, 5) business sophistication, 6) infrastructure, 7) creative outputs.

Rank	1	2	3	India	THEME
2021	Switzerland	Sweden	USA	#46	Tracking Innovation through COVID-19 Crisis.
2022	Switzerland	USA	Sweden	#40	What is the future of innovation-driven growth?
2023	Switzerland	Sweden	USA	#40	Innovation in the face of uncertainty

42.2.2 🚮👩 Maternity leave for construction workers (2024)

Boss? (1) Ministries of Road Transport and Highways (MoRTH), (2) Housing and Urban Affairs

- Above two ministries have instructed all the contractors / employers to give follows:



Scenario	Maternity Leave Duration
Up to two childbirths	26 weeks
More than two children	12 weeks
Woman adopting baby	12 weeks
Miscarriage	6 weeks

Furthermore,

- highways contractors must provide facilities like latrines, urinals, washing areas, crèches, and adequate accommodation,
- Pay salaries/wages to women construction workers in digital mode.

43 SECTORS OF ECONOMY → MFG → TEXTILE & MSME



43.1.1 Textile Ministry → Notable schemes / initiatives

- Indian textile industry, the second largest manufacturer and exporter in the world. Textile sector is the biggest employer after agriculture employing 4.5 crore people directly and another 6 crore people in allied sectors.
- Jute Packaging Material (JPM) Act, 1987:** requires the foodgrains and sugar companies to pack "x%" of their produce in jute bags only. "x"=100% for foodgrains and "x"=20% for sugar. This ensures that jute bag industry can survive against the competition of cheap plastic bags. खाद्यान्न और चीनी कंपनियों ने अपना कुछ सामान अनिवार्य रूप से जूट बैग में ही संग्रहित करना होगा ताकि जूट उद्योग को धंधा मिलता रहे वरना तो प्लास्टिक की थैलियों से वो स्पर्धा नहीं कर पाएंगे!

AB
CD ? MCQ. (EPFO-2023) Statement I: Govt mandates the packaging of 100% sugar and food grains in diversified jute bags.

Statement II: Govt enacted the Jute Packaging Materials Act, 1987.

- Both I and II are correct and statement II is the correct explanation for statement I
- Both I and II are correct and statement II is not the correct explanation for statement I
- Statement I is correct but statement II is incorrect
- Statement I is incorrect but St2 is correct



44 🧑💻SERVICE SECTOR (सेवा क्षेत्र)

44.1.1 🏢 Service Sector- 3/4/5 level (तृतीयक /चतुर्थक /पंचम)

🏢 Level	examples
🏢 Tertiary	trade/commerce, transport, communication, banking finance, real estate
🏢 Quaternary	(1) information /data based (2) research and development (R&D) Based
🏢 Quinary	<ul style="list-style-type: none"> Specialists, Consultants, Decision Markers, Policy formulators They focus on the creation, re-arrangement and interpretation of new and existing ideas; data interpretation, use/evaluation of new technologies These workers are called 'gold collar' professions.

MCQ. Find correct about service sector? (UPSC-EPFO-2023)

1. Retail trade falls under tertiary activity.
2. Research and Development based activity comes under quaternary activity.

Codes: (a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2

44.1.2 💬 MBA-Terms: Outsourcing vs Home-shoring

Outsourcing	Home-shoring / work from home
Outsourcing or contracting out is a firm giving work to an outside agency to improve efficiency and to reduce costs.	practice of employing people to work from their homes rather than in a company's office or factory.
e.g. Apple phones being made by Tata; American banks' Call Center operation operations handled by Indian company in Bengaluru.	e.g. Infosys company telling Infosys employee to coding-work from home. To reduce Office space / maintenance cost.
Helps reducing cost of running company	same as left cell. Employee not coming to office= electricity bill saved

44.1.3 💬 MBA-Terms: Outsourcing- BPO vs KPO

BPO	KPO
Business Process Outsourcing (BPO)	Knowledge Process Outsourcing (KPO)
basic level customer support, data entry.	advance level e.g. 1) Hollywood producer using Indian VFX artists based in India, 2) American pharma/legal firms using Indian writers based in India, 3) USA coaching institute using Indian online teachers for SAT coaching



44.2 SERVICE SECTOR → E-COMMERCE (ई वाणिज्य / ऑनलाइन बिक्री)



44.2.1 E-Commerce vs E-Business (ई-वाणिज्य बनाम ई-कारोबार)

- **E-commerce** = act of buying and selling via digital platform. It is a sub-set of E-Business.
- **E-Business** = It covers wider varieties of areas such as e-commerce, production, supply, management, product, development, accounting, finance, employee training, human resource management.

44.2.2 E-Commerce: types of transactions

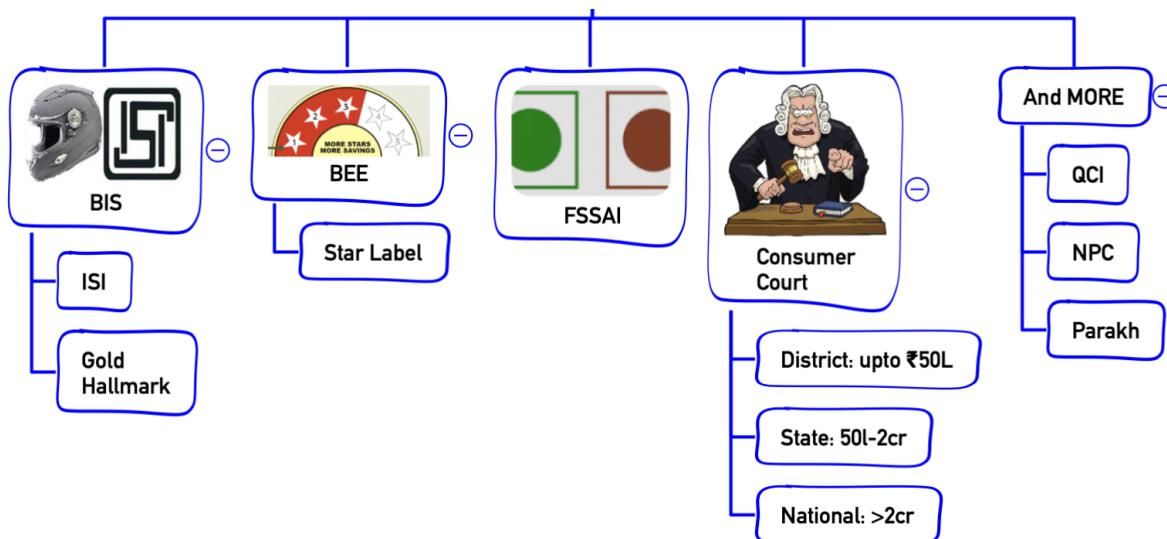
Type	Example
B2B	business- to-business / Intra-B Commerce: e.g. Infosys developing e-banking website for SBI.
B2G	business to government e.g. Infosys developing GST portal.
B2C	Business to customer e.g. Amazon selling goods to you and me.
C2B	Customer raising ticket on Dell company website for laptop warranty claim.
C2C	consumer to consumer e.g 1) Customer selling used or second-hands books/products via Olx.com 2) car driver stuck in traffic is notifying Google maps to alert other users about traffic jam.

44.2.3 → Retail Trade Itinerant retailers & cheap jacks (घुमंतू व्यापारी)

- Itinerant traders do not have a fixed place of business to operate from. They keep on moving with their wares from street to street or place to place, in search of customers. e.g. peddler, hawkers, Cheap jacks etc. (उनका कोई एक स्थाई मुकाम नहीं होता ग्राहक की तलाश में इधर-उधर भटकते रहते हैं)
- Cheap jacks = a type of itinerant traders but with temporary shops. e.g. repair of watches, shoes, buckets; street-side hair-saloon etc.



44.3 🚧 MFG → BODIES FOR QUALITY STANDARDS (गुणवत्ता के मानक)



44.3.1 ❄️🍦 BIS certificate for Mitticool refrigerator (2022)

- 'Miticool refrigerator' developed by Mansukh Bhai Prajapati from Gujarat
- Operates on the principle of **evaporative cooling**.
- It is made from clay to store vegetables, fruits, milk, and also for cooling water. It provides natural coolness to foodstuffs stored in it without requiring any electricity.
- BIS developed an Indian Standards /regulation for such "**clay based non-electric cooling cabinet**" - e.g. what type of clay is to be used, product dimension, temperature levels.
- This standard helps BIS in fulfilling 6 out of 17 United Nations Sustainable Development Goals (SDGs) like No poverty, Zero hunger, Gender equality, Affordable and clean energy, Industry, innovation, and infrastructure, and Responsible consumption and production.

AB
CD MCQ. Which of the following statements regarding the clay based non-electric cooling cabinet, for which the Bureau of Indian Standards (BIS) has recently developed an Indian Standard (Is 17693: 2022), is/are correct? (EPFO-2023)

- 1) It is a natural refrigerator to store vegetables, fruits, milk and also for cooling water.
 - 2) This standard helps BIS in fulfilling 6 out of 17 United Nations Sustainable Development Goals.
- Codes: (a) 1 only (b)2 only (c) Both 1 and 2 (d) Neither 1 nor 2

► **NOTE: I am adding this note, only after UPSC-EPFO asked about it.** However, **in real life, not possible** to remember or keep track of all such random press notes on PIB. If you do not know, then better to skip and move to next question. *Isko EGO pe nahi lena chaahiye ki mere ko harr topic pe zhandaal leke PhD karni hai and Sherlock Holmes ban jaanaa hai.*

44.3.2 ⚖️ OIML Certificate for weighing machine maker companies



- **Body:** OIML (Organisation Internationale de Métrologie Légale / International Organization of Legal Metrology) Certificates Issuing Authority. HQ: Paris. Founded 1996.
- the company that manufacture weighing machines & measurement instrument - they need to get certificate from this OIML body.

BEFORE	AFTER (2023)
India was not member. Indian companies had to get certificate from Australia, Switzerland, China, Czech Republic, Germany, Denmark, France, UK, Japan, the Netherlands, Sweden and Slovakia	India becomes 13th Member of this OIML Body. So possible to get the weighing/measurement devices tested within India to get certificates.

44.4 CONSUMER PROTECTION

44.4.1 🇮🇳 Royal Entry UPSC Toppers pe CCPA rules (2023)

- Central Consumer Protection Authority (CCPA) has asked Dept of Personnel and Training (DoPT) to enforce the Central Civil Services (Conduct) Rules, 1964 on the UPSC Toppers.
- The conduct rules clearly state that no government servant shall engage in any trade or business or undertake any private employment. (केंद्रीय सिविल सेवा अनुशासन नियमों के तहत कोई भी अफसर निजी व्यवसाय के विज्ञापन नहीं कर सकता.)

44.4.2 → Consumer protection ✖ Banking customers

RBI's two initiative

- Integrated Ombudsman Scheme (also called one nation, one ombudsman)
- Centralised Receipt and Processing Centre = @Chandigarh to process the complaints received in physical mode, such as letter or post.

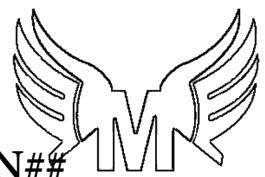
AB CD !? MCQ. Who has setup 'Centralised Receipt and Processing Centre' and 'Integrated Ombudsman Scheme'? (UPSC-IES'24) (a) NITI Aayog (b) DPIIT (c) ISRO (d) RBI

44.4.3 → Consumer protection ✖ spam protection in USA

AB CD !? MCQ. Which of the following Acts is required for the commercial emailers in sending out messages that advertise a commercial product or service? (UPSC-IES'24)

- (a) Controlling the Assault of Non-Solicited Pornography and Marketing Act
- (b) Communications Assistance for Law Enforcement Act
- (c) Communications Act of 1934 (d) Communications Decency Act

Ans. Option-A. But, tough question because this law was made in USA in 2003.



45 ARCHIVE: WHAT IS ALREADY COVERED IN PAST WIN##

- LINKs to Previous Video Lectures and handouts at <https://mrunal.org/win23>
- Red highlight.= I find them less important for the 2023 prelims.
- निम्न चीज़ें हम पहले ही पढ़ चुके हैं. आपने नहीं पढ़ा तो उसमें से देख लेना

45.1 WHAT IS ALREADY COVERED IN PAST 4A-AGRICULTURE

45.1.1 Win20: already covered Following in 4A ↪

- [Yearbook-Info] Agro Ministry
- [Yearbook-Info] Ministry for Fisheries, Animal Husbandry and Dairying
- Agri-Input → Seeds → 🥔 Pepsi vs Potato Farmers
- Agri-Input → Water (Irrigation: सिंचाई)
- [Yearbook] Water related Ministries and Departments
- Water Schemes → Jal Shakti Abhiyan (2019-July)
- Water Schemes → Jal Jeevan Mission (2019-Aug)
- Water Schemes → ATAL Bhujal Yojana (=ATAL JAL) (2019-Dec)
- Agri-Input → Water → Composite Water Management Index
- 🌽🚫⚠️ Agri Inputs ✗ Don't use chemicals ✗ PKVY (2015)
- 🚫💼🚫⚠️ Zero Budget Natural Farming (ZBNF: शून्य बजट प्राकृतिक खेती)
- Model APMC Act?
- Agro Ordinance#1 →APMC Ordinance 2020
- 📊🍅🌾馌��⚠️ Agro Ordinance#2 →Contract farming Ordinance 2020-June
- 🌽📦🌾🌾⚠️ FCI's Buffer Stock Problem (बफर भंडार)
- 🌽🌾📦🚗⚠️ Agri-Selling: Storage and Transport
- 🍅📈⚠️ Food Inflation due to Cobweb cycle 📈🕷️🕸️
- 🍅📈⚠️ Food Inflation → Essential Commodities Act
- 📊🍅⚠️ Agro Ordinance#3 →ECA Ordinance 2020
- 🌽🌾⚠️ Agriculture Production & Processing → Other Schemes
- 🌽🏭⚠️ Agriculture Infrastructure Fund (2020-Jul)
- 🌽🍅⚠️ Atma-Nirbhar: "Op Green" expanded to all fruits & veggies
- 🌽⚠️ Atma-Nirbhar: Food Enterprises promotion (खाद्य उद्यमों को बढ़ावा)
- → Sectors → Agro Allied: ✗ Animal husbandry (पशुपालन)
- 🐄📊⚠️ Livestock Census (पशुधन की जनगणना)
- 🐄⚠️ Agro Allied: Animal husbandry → SCHEMES
- 🐄⚠️ ES2019: Focus on Small Ruminants
- 🐄🍼⚠️ Atma-Nirbhar: Dairy cooperatives (दृग्धालय सहकारी समितियाँ)
- 🐟⚠️ Agro Allied: Fisheries → Blue revolution (मत्स्य → नीली क्रांति)
- 🐄⚠️ Pradhan Mantri Matsya Sampada Yojana (2020)
- 🤝⚠️ Global Cooperation: Food and Agriculture Organisation (FAO)
- 🤝⚠️ Global Cooperation: Misc. → SAARC Food Bank (2007)



- 🌎 Global Cooperation: Misc. → International Grains Council (London)

45.1.2 Win21: already covered Following in 4A-Agro 🙏

- 🌱 Sectors of Economy: Agriculture & Cooperatives
- 🌱 Cooperative societies Meaning, Types & New Ministry
- 🌱 [Yearbook-Info] Cooperative Ministry
- 🌧️ Agri-Input → Water (Irrigation: सिंचाई)
- 🌧️ 🍃 🎉 Water Schemes → Jal Jeevan Mission (Rural) (2021-Budget)
- 🍅 📈 🍗 Agri-Selling: food inflation for consumers
- 🍅 📈 😠: 🤔: 📜 📜 ES21 how to control onion inflation?
- 🌴 🥔 📈 Edible oil ki New Scheme (NMOE-OP: 2021-Aug)
- 🥔 🏆 World Food Prize [विश्व खाद्य पुरस्कार]

45.1.3 Win22: already covered Following in 4A-Agro 🙏

- 🌱 Pillar#4A: Sectors of Economy- Agriculture
- 🏆 Agri Production Numbers/GK: India is _ _ _ (as per ES22).
- 🌱 [Yearbook-Info] Ministries and Departments
- 🌱 🌱 Agriculture-Inputs
- 🌱 🌱 Agri-Input → Seeds → Genetically modified (GM) crops
- 🌱 🌱 Agri-Input → Seeds → Landraces (जमीनी प्रजाति की फसले/बीज)
- 🌧️ Agri-Input → Water (irrigation) – Budget 2022
- 🌱 Prevent urea overuse → Nano-Urea- suggested by 📜 📜 ES22
- 🌽 🚫 🌟 AGRI INPUTS → No chemicals: PKVY (2015) → (BPKP-2021)
- 🌽 🚫 🌟 AGRI INPUTS → No chemicals: 🛒 🍃 Budget-2022 kya bolaa?
- 🌽 🚫 🌟 Agri Inputs → Farm Mechanization: new initiatives?
- 🌽 🔥 AGRI-OUTPUT 🌱 Biomass Pellets
- 🌽 🛒 🌱 AGRI-SELLING → 3 Farm Laws withdrawn
- 🌽 🛒 🌱 AGRI-SELLING → FARMER'S INCOME: SAS SURVEY DATA
- 🌽 🛒 🌱 AGRI-SELLING → Crop Diversification via MSP
- 🌱 🌱 ES22: Crop Diversification: by higher MSP (फसल विविधीकरण- उच्च न्यूनतम समर्थन मूल्य द्वारा)
- 🌽 🛒 🌱 Crop Diversification: CDP program (2013)
- 🌽 🌱 📦 FCI & PDS & NFSA
- 🍅 📈 🍗 AGRI-SELLING: FOOD INFLATION FOR CONSUMERS
- 🍅 📈 🍗 Seasonality in Onion-Tomatoes
- 🍅 📈 😠 Agro-Selling → Deflation → Sugar mills' problem
- 🍅 📈 🍗 Agro-Selling → Deflation → Sugar Subsidy & WTO order
- → Fish Selling 🐟 Shaphari certification for aquaculture exports (MPEDA, 2021)

45.1.4 Win23: already covered Following in 4A 🙏

- Agri growth as per ES23
- 🌱 Multi-State Cooperative Societies Act 2002 → Amendment Bill 2022



- 🚨 3 new coop societies for export, organic, seeds (2022)
- 📈 Budget-2023 on Agro
- Agriculture Inputs: 🌱 GM Mustard approval- Kabhi haan kabhi naa
- 🌽 Agri-Input → Fertilizer (उर्वरक / खाद)
- Pradhan Mantri Kisan Samridhi Kendra (PMKSK-2022):
- 🚨 📈 🚨 Prevent fertilizer misuse → PM-BJP/One Nation One Fertiliser
- 🚨 📈 🚨 Reduce Fertilizer use : PM PRANAM scheme in 📈 Budget-2023
- 🍎 ✅ 🚨 Agri-Selling: food inflation for consumers
- Food inflation Reasons in 2022–23 by 📈 ES23
- Food Inflation- Govt's Reforms in 2022–23
- 🌽 🌽 International Year for Millets (2023)
- 🌽 🌽 MIIRA for global Millet R&D (2023)

45.2 WHAT IS ALREADY COVERED IN PAST 4B- MFG SERVICES IPR 🔍

45.2.1 Win20: already covered Following in 4B-Mfg & Services 🔍

- 🚨 🚨 Mfg: Assemble in India (असेंबल इन इंडिया)
- 🌱 🚨 Mfg & Services → Startup India (2016)
- 🌱 🚨 (Full) Budget-2019 on Start-ups
- 🌱 🚨 Budget-2020 on Start-ups
- 🌱 🚨 Startup: Misc Terms and trends
- 🌱 🚨 Startup: Factors affecting new firms creation (📁 📁 ES20)
- → 📈 Quantum Technology (क्वांटम प्रौद्योगिकी) 2020
- 🚨 Mfg & Services → Intellectual Property Rights
- 🚨 IPR → Patents → What can't be Patented?
- 🚨 🌽 Patent pools (पेटंटो का समूहीकरण)
- 🚨 Atma-Nirbhar IPR → YUKTI 2.0
- → IPR Index 📈 NITI's India Innovation Index (भारत नवाचार सूचकांक)
- 🚨 📈 IPR Index → International
- Sectors: Ease of Doing Business Report
- 📁 📁 ES20 Vol1ch6 on Ease of Doing Biz in India: observed
- 🚨 🚨 Pro-Business vs Pro-Crony, 📁 📁 ES20Vol1Ch3
- 🚨 🤝 🚨 Cronyism: Related Party Transaction (RPT: संबंधित पक्षों से लेनदेन)
- 🚨 🙋 🚨 🚨 Cronyism: Economist David Ricardo & Rent Seeking
- 🚨 🚨 🚨 Crony Capitalism and SENSEX's 30 companies
- 🚨 🚨 Pro-business vs Pro-Crony Policies
- Ease of doing Biz → Judicial Reforms: न्यायिक सुधार
- 🚨 🚨 🚨 Transparency International → Corruption Perceptions Index 2019
- 🚨 💰 Minimum Wages (न्यूनतम वेतन)
- 🚨 🚨 🚨 EoD → Corona: Suspension of Labour Laws?
- 🚨 🚨 🚨 Banking = Public Utility Service (सार्वजनिक उपयोगिता सेवा)



- 🚧 Mfg & Services → MSME → Ministry
- 🚧 ATMANI: MSME Definition Changed by Government
- 🚧 MSME → Atma-Nirbhar Funding/Schemes (2020, Corona)
- 🚧 Atma-Nirbhar-MSME: CHAMPIONS WebPortal (2020-May)
- 🚧 ES19: MSME dwarfism shd be discouraged (बौनापन)
- 🚧 Mfg → Bodies for quality standards
- 🚧 BIS & Gold Hallmarking
- 🚧 Commerce Ministry → Not-Statutory → NPC (1958)
- 🚧 Health ministry → Statutory → FSSAI (2006)
- 🚧 Power Ministry → Statutory → BEE (2001-02)
- 🚧 Consumer Protection Act, 2019 (उपभोक्ता संरक्षण)

45.2.2 Win21: already covered Following in 4B-Mfg & Services 🙏

- 🚧 Sectors: Ease of doing business in India
- 🚧 ES21: Over regulation in India
- 🚧 EoD → Ease of Doing Business Report by World Bank
- 🚧 EoD → Indian States' EoD: BRAP Ranking 2020
- 🚧 EoD → Economic Freedom of the World (2020, Sept)
- 🚧 🚧 Production Linked Incentive Scheme (PLI)
- 🚧 PLI Scheme Benefits?
- 🚧 India can be "pharmacy of the world" says 📜 ES21
- 🚧 IPR → Pvt sector not spending enough ₹₹ on R&D
- 🚧 IPR → Number of patents filed by a resident of a given country
- 🚧 IPR → Gross domestic expenditure on Research & Development (GERD)
- 🚧 IPR → Notable Schemes: YUKTI and KAPILA
- 🚧 IPR → Indices & Rankings
- 🚧 IPR Index → Global Innovation Index (GII: वैश्विक नवीनीकरण सूचकांक)
- 🚧 Index → Global Competitiveness Index (GCI) by WEF
- 🚧 Index → World Competitiveness Report
- 🚧 Index → NITI's India Innovation Index (भारत नवाचार सूचकांक)
- → Textile Ministry ☈ MITRA PARKS
- 🚧 MSME: RAMP programme by World Bank
- 🚧 MSME Exporters: Ubharte Sitaare Programme (USP: 2021-Aug)
- 🚧 One District One Product (ODOP: 2021)
- 🎥 Hallmarking of gold and silver
- 🚧 Sectors of Economy → Knowledge Economy
- 🚧 Service Sector: IT & BPM
- 🚧 Other Service Provider (OSP) guidelines of the Department of Telecom.
- 🚧 🚧 Knowledge economy of India: Threats/Challenges
- 🚧 E-Commerce: Open Network for Digital Commerce (ONDC)



45.2.3 Win22: already covered Following in 4B-MFG Services IPR 🤝

- Mfg & Services: Industrial policy and LPG reforms
- 🛠️⌚🏀 Circular Economy (परिक्रामी अर्थव्यवस्था)
- 🏃 EODB 2.0 in 🗂️ Budget-2022 (व्यापार सुगमता का दूसरा चरण)
- 🏃⚖️: International Arbitration Centre @GIFT city - in 🗂️ Budget-2022
- 🎨🏭 Mfg & Services → 🧵 Textile
- 🎨🏭 Mfg & Services → MSME → Ministry
- MSME ko time pe payment – promises 🗂️ Budget-2022
- 🎨🛒ℹ️ Public Procurement → GeM Portal is bahut Mahaan says 📜 ES22
- 🛍️ℹ️ Public Procurement → Various Models – L1, QCBS, SSS- in 📜 ES22
- Sunrise sector in 🗂️ Budget-2022 (सूर्योदय क्षेत्र: जहाँ तेज़ वृद्धि की संभावना)
- ES22: Electronics is META-Resource
- ES22: Startups, Service Sector & ka bol-bachchan
- ES22: Patent approval process very slow in India
- PARAKH Laboratory Network (2021)

45.2.4 Win23: already covered Following in 4B-Mfg & Services 🤝

- 🛠️🔧 Circular Economy: Right to Repair Portal (2022)
- Make in India 2.0
- Mfg Sector Observations by 📜 ES23
- Mfg- significance as per 📜 ES23 (विनिर्माण क्षेत्र का महत्व)
- MFG Sectors challenges as per 📜 ES23 (चुनौतियां)
- Mfg: Balancesheet Deleveraging completed as per 📜 ES23
- 📲 Electronics & Startups Notable Schemes/Portals (2022)
- 🚗 Startup Problems as per 📜 ES23
- 🚗 Flipping & 🚗 How can India combat “flipping” / ensure “Reverse Flipping”?
- IPR: Biopiracy & Traditional Knowledge Digital Library (TKDL)
- Ease of Doing Biz (EoD): 💰 Budget-2023 announcements
- EoD: Vivad se Vishwas I – Relief for MSMEs in 💰 Budget-2023
- Vivad se Vishwas II – Settling Contractual Disputes in 💰 Budget-2023
- EoD: PAN Card as Common Business Identifier
- EoD: Unified Filing Process
- EoD for MSME: GSTN gets AA Status
- EoD: One-stop solution for identity and address updating :
- EoD: training of civil servants to be more sensitive in Mission KarmaYogi
- 🏞️⚔️👮 EoD: Jan Vishwas (Amendment of Provisions) Bill, 2022,
- Textile-PM Mitra Parks
- MSME- some new funds
- → SERVICE SECTOR ☈ E-Commerce (ई वाणिज्य / ऑनलाइन बिक्री)
- QCommerce / Quick Commerce



- E-Commerce: Anti Fake review framework by BIS
- E-Commerce: Google Appstore Anti-Trust: CCI Order
- Social Media influencers pe CCPA Rules 2023

45.2.5 Mock Tests ka Maha-Parv at Unacademy (FREE)!

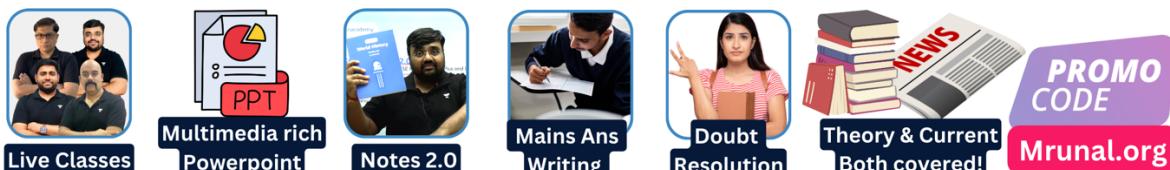


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