



# 2-Minute Series

*A compilation of foundational topics prerequisite for Civil Services*

For the 2nd Week of

# January 2021

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# 1. Geography

## 1.1. Organic Farming

- Organic agriculture can be defined as "an integrated farming system that strives for sustainability, the enhancement of soil fertility and biological diversity while, with rare exceptions, prohibiting synthetic pesticides, antibiotics, synthetic fertilizers, genetically modified organisms, and growth hormones"
- Organic agricultural methods are internationally regulated and legally enforced by many nations, based in large part on the standards set by the International Federation of Organic Agriculture Movements (IFOAM), an international umbrella organisation for organic farming organisations established in 1972.

### Associated Certification Scheme:

#### Participatory Guarantee System (PGS)

- It is implemented by the Ministry of Agriculture and Farmers' Welfare.



- PGS is a process of certifying organic products, which ensures that their production takes place in accordance with laid-down quality standards.
- The certification is in the form of a documented logo or a statement.
- All members live close to each other and are known to each other. As practising organic farmers, themselves, they understand the processes well. Because peer appraisers live in the same village, they have better access to surveillance; peer appraisal instead of third-party inspections also reduces costs.
- It is only for farmers or communities that can organise and perform as a group within a village or a cluster of contiguous villages, and is applicable only to farm activities such as crop production, processing, and livestock rearing, and off-farm processing by PGS farmers of their direct products.
- PGS ensures traceability until the product is in the custody of the PGS group, which makes PGS ideal for local direct sales and direct trade between producers and consumers.
- PGS offers every farmer individual certificate, and the farmer is free to market his own produce independent of the group.
- Individual farmers or group of farmers smaller than five members are not covered under PGS. They either have to opt for third party certification or join the existing PGS local group.

## Note

- PGS is an internationally applicable organic quality assurance initiative that emphasize the participation of stakeholders, including producers and consumers, and operate outside the framework of third-party certification.
- According to a 2008 definition formulated by the International Federation of Organic Agriculture Movements (IFOAM), the Bonn-based global umbrella organisation for the organic agriculture movement, PGSs are “locally focused quality assurance systems” that “certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange”.
- PGS, according to this definition, is “a process in which people in similar situations (in this case small holder producers) assess, inspect and verify the production practices of each other and take decisions on organic certification.”

## 2. History

### 2.1.5 Important Things about Lord Curzon

1

- Famine of 1899-1900 occurred during Curzon's tenure as Viceroy.
- He appointed:
  - ✓ Famine Commission under Sir Anthony McDonnell.
  - ✓ Commission on Irrigation under Colin Scott Moncrieff.

#### Other Important Commissions under him

- ✓ Police Commission under Andrew Frazer.
- ✓ Education Commission / Raleigh Commission.

2

- Created the North West Frontier Province in 1901.



3

- Curzon sent a British expedition to Tibet under Francis Younghusband in 1903.
- Curzon was expecting Russian advances from Tibet. Treaty of Lhasa was signed in September 1904.

4

- Curzon presided over the 1905 partition of Bengal.

5

#### Curzon-Kitchner Controversy

- Lord Kitchener took over as Commander-in-Chief of the British Indian Army in 1902.
- He changed the Indian armed forces from a colonial army meant for annexation into a professional army capable of holding its own in any modern war.
- There was duality of control as Viceroy's Council had a member responsible for the armed forces.

- Kitchner wanted Commander-in-chief to be that member.
- Curzon refused.
- British Cabinet seemed in favour of Kitchner leading to Curzon's resignation.

### Extra

- Curzon Oversaw the following important Acts:
  - ✓ Indian Universities Act, 1904.
  - ✓ Indian Coinage and Paper Currency Act, 1899.
  - ✓ Calcutta Corporation Act, 1899.
  - ✓ Ancient Monuments Protection Act, 1904.

### Some more

- Following announcement of Partition of Bengal:
  - ✓ Rabindranath Tagore led the marches at many places.
  - ✓ He composed many patriotic songs, most famously 'Amar Sonar Bangla' (now the national anthem of Bangladesh).
  - ✓ Patriotism and Bengali nationalism also showcased in Jatras, or popular theatre.

### UPSC & Curzon

#### UPSC Mains 2020

- Evaluate the policies of Lord Curzon and their long term implications on the national movements. (Answer in 150 words) 10 Marks.

## 3. Polity

### 3.1.125th Birth Anniversary of Netaji Subhas Chandra Bose

- The Government has decided to constitute a High Level Committee to commemorate the 125th Birth Anniversary of Netaji Subhas Chandra Bose.
- This High Level Committee will decide on the activities for a one year long commemoration starting 23rd January, 2021.
- The Members of the Committee include distinguished citizens, historians, authors, experts, family members of Netaji Subhas Chandra Bose, as well as eminent persons associated with Azad Hind Fauj (INA).
- The Commemoration is being held as a tribute and as a mark of gratitude to the colossal contribution Netaji made to India's freedom struggle.
- The Government has decided to celebrate 23rd January as PARAKRAM DIWAS every year.
- Ministry of Culture has proposed a number of activities and projects for this year-long commemoration.
- The inaugural function of the commemoration will be held at Victoria Memorial in Kolkata on 23rd January 2021.
- A permanent exhibition on Netaji and a Projection Mapping Show will be inaugurated on the occasion.
- A cultural program "AmraNutonJouboneriDoot" will also be held based on the theme of Netaji.
- A commemorative coin and postage stamp will also be released on this day.
- An International Conference 'Re-visiting the legacy of Netaji Subhash in 21st century' and an Artists' Camp are being organized at National Library, Kolkata on the same day.
- Tourism Ministry will be sponsoring this year the National Level indigenous games including Kabaddi Tournament which has been organised for the last 37 years on Netaji's Birth Anniversary in Madhya Pradesh's Narshingpur District by the 'SahyogKrida Mandal'.
- Netaji Football Tournament and Marathons (D/o Sports), Pada Yatras and Cycle Yatras( D/o Youth Affairs), Webinar under "Dekho Apna Desh," Webinar on Netaji's life and incidents in Manipur (Ministry of Tourism), INA tune 'Kadam KadamBadhayeJa' being included in the Beating Retreat Ceremony - 2021 (Ministry of Defence), etc.
- Ministry of Civil Aviation has proposed to paint some of Air India's aircraft with Netaji's images , especially the ones flying to Andaman and Nicobar Islands.
- Ministry of Railways has proposed to name an express train after Netaji.

## 4. Economy

### 4.1.11 Important Points Swaminathan Report

#### A Broad set of 11 recommendations

1

- Total five reports submitted. Through December 2004 - October 2006.

2

- 5th report focused on farmer suicides and farmer distress. It then recommends a National Policy for Farmers.

3

- Causes for Farmers' Distress-
  - ✓ Unfinished land reforms.
  - ✓ Quantity and Quality of water.
  - ✓ Technology fatigue.
  - ✓ Access, adequacy and timeliness of institutional credit.
  - ✓ Opportunities for assured and remunerative marketing.
- Important Recommendation-
  - ✓ Agriculture be inserted in the Concurrent List of the Constitution.

4

- Recommendations on Land Reforms-
  - ✓ Distribute ceiling-surplus and waste lands.
  - ✓ Prevent diversion of prime agricultural land and forest to corporate sector for non-agricultural purposes.
  - ✓ Ensure grazing rights and seasonal access to forests to tribals and pastoralists, and access to common property resources.
  - ✓ Establish a National Land Use Advisory Service, which would have the capacity to link land use decisions with ecological meteorological and marketing factors on a location and season specific basis.
  - ✓ Set up a mechanism to regulate the sale of agricultural land, based on quantum of land, nature of proposed use and category of buyer.

5

- Recommendations on Irrigation-
  - ✓ Increase water supply through rainwater harvesting.
  - ✓ Recharge of the aquifer should become mandatory.

- ✓ "Million Wells Recharge" programme, specifically targeted at private wells should be launched.

## 6

### ● Recommendations on Credit and Insurance-

- ✓ Reduce rate of interest for crop loans to 4 per cent simple, with government support.
- ✓ Moratorium on debt recovery, including loans from non-institutional sources, and waiver of interest on loans in distress hotspots and during calamities, till capability is restored.
- ✓ Establish an Agriculture Risk Fund to provide relief to farmers in the aftermath of successive natural calamities.
- ✓ Issue Kisan Credit Cards to women farmers, with joint pattas as collateral.
- ✓ Develop an integrated credit-cum-crop-livestock-human health insurance package.
- ✓ Expand crop insurance cover to cover the entire country and all crops, with reduced premiums and create a Rural Insurance Development Fund to take up development work for spreading rural insurance.

## 7

### ● Recommendations on Food Security-

- ✓ Implement a universal public distribution system. Total subsidy required for this would be one per cent of the GDP.
- ✓ Reorganise the delivery of nutrition support programmes on a life-cycle basis with the participation of Panchayats and local bodies.
- ✓ Eliminate micronutrient deficiency induced hidden hunger through an integrated food cum fortification approach.
- ✓ Promote the establishment of Community Food and Water Banks operated by Women Self-help Groups (SHG), based on the principle 'Store Grain and Water everywhere'.
- ✓ Help small and marginal farmers to improve the productivity, quality and profitability of farm enterprises and organize a Rural Non-Farm Livelihood Initiative.
- ✓ Formulate a National Food Guarantee Act continuing the useful features of the Food for Work and Employment Guarantee programmes.
- ✓ By increasing demand for food grains as a result of increased consumption by the poor, the economic conditions essential for further agricultural progress can be created.

## 8

### ● Recommendations on Farmers' Suicides-

- ✓ The National Rural Health Mission should be extended to suicide hotspot locations on priority basis.
- ✓ Set up State level Farmers' Commission with representation of farmers.
- ✓ Restructure microfinance policies to serve as Livelihood Finance, i.e. credit coupled with support services in the areas of technology, management and markets.



- ✓ Decentralise water use planning and every village should aim at Jal Swaraj with Gram Sabhas serving as Pani Panchayats.
- ✓ Ensure availability of quality seed and other inputs at affordable costs and at the right time and place.
- ✓ Have a Price Stabilisation Fund in place to protect the farmers from price fluctuations.
- ✓ Need swift action on import duties to protect farmers from international price.
- ✓ Set up Village Knowledge Centres(VKCs) or Gyan Chaupals in the farmers' distress hotspots.
- ✓ Public awareness campaigns to make people identify early signs of suicidal behaviour.

## 9

### ● Recommendations on Competitiveness-

- ✓ Promotion of commodity-based farmers' organisations.
- ✓ Improvement in implementation of Minimum Support Price (MSP).
- ✓ Arrangements for MSP need to be put in place for crops other than paddy and wheat.
- ✓ MSP should be at least 50% more than the weighted average cost of production.
- ✓ Availability of data about spot and future prices of commodities.
- ✓ State Agriculture Produce Marketing Committee Acts [APMC Acts] relating to marketing, storage and processing of agriculture produce need to shift to one that promotes grading, branding, packaging and development of domestic and international markets for local produce.
- ✓ Move towards a Single Indian Market.

## 10

### ● Recommendations on Employment-

- ✓ India must seek to achieve two things:
- ✓ Create productive employment opportunities..
- ✓ Improve the 'quality' of employment.
- ✓ The "net take home income" of farmers should be comparable to those of civil servants.

## 11

### ● Recommendations on Bio resources-

- ✓ Preserving traditional rights of access to biodiversity (access to non-timber forest products including medicinal plants, gums and resins, oil yielding plants and beneficial micro-organisms).
- ✓ Conserving, enhancing and improving crops and farm animals as well as fish stocks through breeding.
- ✓ Encouraging community-based breed conservation.
- ✓ Allowing export of indigenous breeds and import of suitable breeds to increase productivity of nondescript animals.

JAN 09, 2021

## Swaminathan says MSP better than loan waiver

The protesting farmers, apart from a repeal of the laws, have also demanded a law guaranteeing MSPs calculated using the C2 yardstick. The farmers will hold the next round of negotiations with the Centre on Friday

### UPSC & Swaminathan Report

- Countless Questions related with Agriculture in Mains and Prelims.

### 2018 Mains

3. न्यूनतम समर्थन मूल्य (एम० एस० पी०) से आप क्या समझते हैं? न्यूनतम समर्थन मूल्य कृषकों का निम्न आय फंदा से किस प्रकार बचाव करेगा? (उत्तर 150 शब्दों में दीजिए)
- What do you mean by Minimum Support Price (MSP)? How will MSP rescue the farmers from the low income trap? (Answer in 150 words) 10

### 2019 Mains

5. जल इंजीनियरी और कृषि-विज्ञान के क्षेत्रों में क्रमशः सर एम० विश्वेश्वरैया और डॉ० एम० एस० स्वामीनाथन के योगदानों से भारत को किस प्रकार लाभ पहुँचा था? (उत्तर 150 शब्दों में दीजिए)
- How was India benefitted from the contributions of Sir M. Visvesvaraya and Dr. M. S. Swaminathan in the fields of water engineering and agricultural science respectively? (Answer in 150 words) 10

## 5. Environment

### 5.1. Jal Shakti Abhiyaan

- It is a time-bound, mission-mode water conservation campaign.
- It ran in 2 phases in 2019: During Monsoon and During Retreating-Monsoon. (In 2020: Combined with various MNREGS works because of Covid-19).
- It was meant for all States and Union Territories.

#### Jal Shakti Abhiyaan Undertaken By

- DEPARTMENT OF DRINKING WATER AND SANITATION (MINISTRY OF JAL SHAKTI)
- During the campaign, officers, groundwater experts and scientists from the Government of India worked together with state and district officials in India's most water-stressed districts for water conservation and water resource management.
- The JSA aims at making water conservation a Jan Andolan through asset creation and extensive communication.

#### Water-stressed Districts

- Districts with critical or over-exploited groundwater levels as per the Central Ground Water Board (CGWB) 2017.

#### JSA For Other Districts

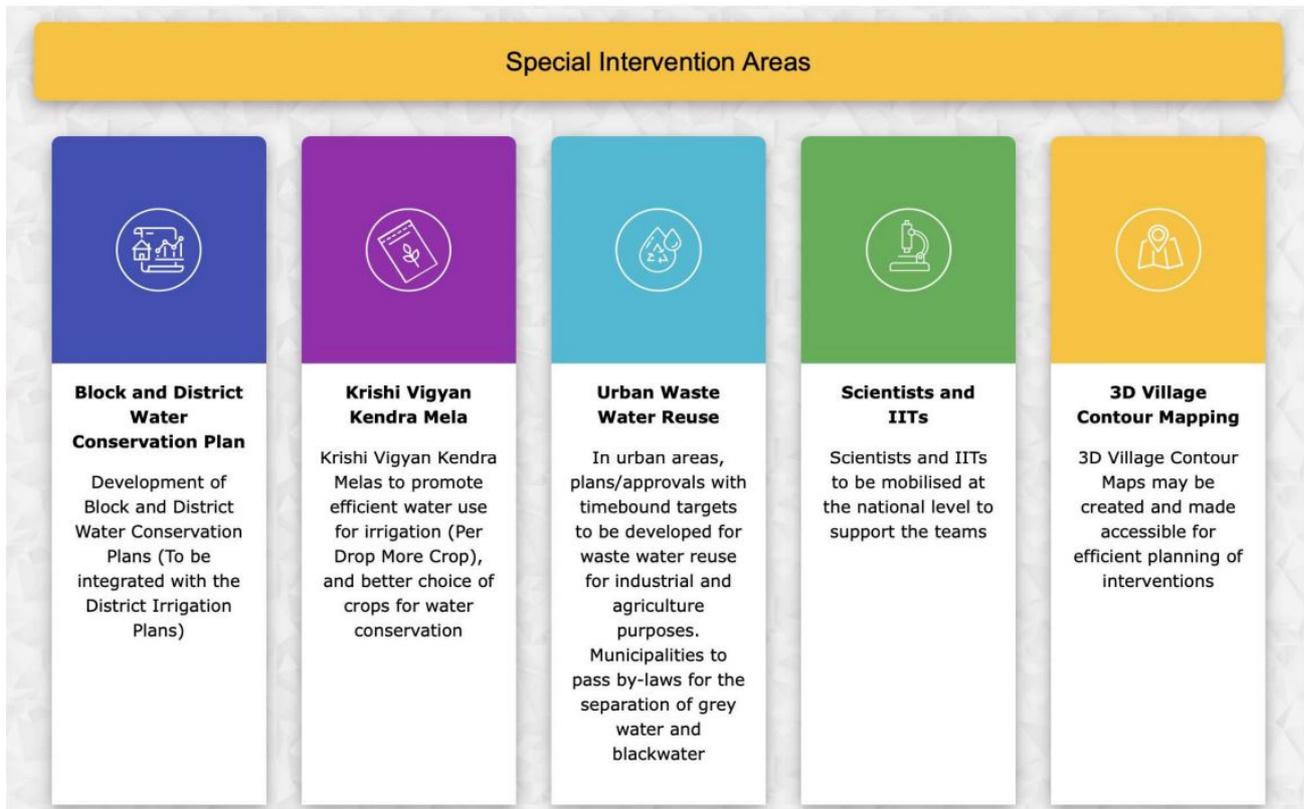
- For states without critical and over-exploited groundwater levels, districts with the least availability of groundwater in comparison to the rest of the districts in the state have been selected.

#### Five target interventions

- It is to be done by focusing on:
  - ✓ Accelerated implementation of five target interventions.



## Special Interventions Areas



## Jal Shakti Abhiyaan & UPSC

### UPSC Mains 2020

- What are the salient features of the Jal Shakti Abhiyan launched by the Government of India for water conservation and water security? (Answer in 150 words) 10 marks.

## 6. Science & Technology

### 6.1. Nanotechnology

- It is the term given to those areas of science and engineering where phenomena that take place at dimensions in the nanometre scale are utilised in the design, characterisation, production and application of materials, structures, devices and systems.
- It involves the ability to see and to control individual atoms and molecules.

#### Applications

- It is being used in a big way in cell phones and computers.
- Has a great scope in medicine-
  - ✓ Drug delivery mechanism.
  - ✓ Nano nose to detect cancer by analysing breathing.
  - ✓ Artificial skin made through nanotechnology that leads to regeneration of natural skin.
  - ✓ Bandage made of silver nano particles that cures burns.
- Solar energy fields.
- Space science.
- Nano laser in optical communication to transfer large data rapidly.
- Nanoscale nutrients for agricultural applications, food packaging, disease mechanisms and regenerative medicine, and nano toxicity.

#### Challenges

- Not very economical to serve the common man.
- Lack of optimal research by the academia.

#### Nanotechnology and UPSC

##### Mains

- What do you understand by nanotechnology and how is it helping in health sector?

##### Preliminary

- With reference to carbon nanotubes, consider the following statements:
  - ✓ They can be used as carriers of drugs and antigens in the human body.
  - ✓ They can be made into artificial blood capillaries for an injured part of human body.
  - ✓ They can be used in biochemical sensors.
  - ✓ Carbon nanotubes are biodegradable.
- With reference to the use of nanotechnology in health sector, which of the following statements is/are correct?

- ✓ Targeted drug delivery is made possible by nanotechnology.
- ✓ Nanotechnology can largely contribute to gene therapy.
- There is some concern regarding the nanoparticles of some chemical elements that are used by the industry in the manufacture of various products. Why?
  - ✓ They can accumulate in environment and contaminate water and soil.
  - ✓ They can enter the food chains.
  - ✓ They can trigger the production of free radicals.