

GOVERNANCE

Crop Insurance

The domestic general insurance companies are gradually reducing their exposure to the Pradhan Mantri Fasal Bima Yojana (PMFBY) to cut down their losses on account of high claims even as the Centre made the scheme optional and slashed its contribution.

- PMFBY and the Restructured Weather Based Crop Insurance Scheme (RWBCIS) were revamped in 2020.

Key Points

About the Pradhan Mantri Fasal Bima Yojana (PMFBY):

- Launched in 2016 and is being administered by the Ministry of Agriculture and Farmers Welfare.
- Replaced the National Agricultural Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS).
- **Aim:** To provide a comprehensive insurance cover against the failure of the crop thus helping in stabilising the income of the farmers.
- **Scope:** All food & oilseed crops and annual commercial/horticultural crops for which past yield data is available.
- **Premium:** The prescribed premium is 2% to be paid by farmers for all Kharif crops and 1.5% for all rabi crops. In the case of annual commercial and horticultural crops, the premium is 5%.
- Premium cost over and above the farmer share was equally subsidized by States and GoI.
- However, GoI shared 90% of the premium subsidy for North Eastern States to promote the uptake in the region.
- **Implementation:** By empanelled general insurance companies. The selection of the Implementing Agency (IA) is done by the concerned State Government through bidding.
- **PMFBY 2.0:** The revamped PMFBY is often called PMFBY 2.0, it has the following features:
- **Completely Voluntary:** Enrolment 100% voluntary for all farmers from 2020 Kharif.
- Earlier, it was compulsory for loanee farmers availing Crop Loan/Kisan Credit Card (KCC) account for notified crops.
- **Limit to Central Subsidy:** The Centre has decided to limit the PMFBY premium rates - against which it would bear 50% of the subsidy - to a maximum of 30% in un-irrigated and 25% in irrigated areas.
- **Investing in ICE Activities:** Insurance companies have to now spend 0.5% of the total premium collected on information, education and communication (IEC) activities.

Restructured Weather Based Crop Insurance Scheme:

- Launched in 2016 and is being administered by the Ministry of Agriculture and Farmers Welfare.
- **Aim:** To mitigate the hardship of the insured farmers against the likelihood of financial loss on account of anticipated crop loss resulting from adverse weather conditions relating to rainfall, temperature, wind, humidity etc.
- **Parameter:** WBCIS uses weather parameters as “proxy” for crop yields in compensating the cultivators for deemed crop losses.

Challenges in Implementation

- **Sustainability:** For Insurance markets to work they need- (a) Low risk; and (b) Low correlation in risk amongst those buying insurance.
- Since the programme is aimed at covering risks of drought and floods, both assumptions are likely to be false.
- This is because when bad weather hits, all regional farmers are affected (high correlation) and incidence of bad-weather is high (once in 5-7 years ie. loss probability of 14% - 20%).
- The PMFBY states the premium rates to be 1.5-2% as the rest being subsidized by the government. This in the long term is bad and also encourages risk-taking especially for crops with low MSPs.
- **Claim Settlement Issues:** The role and power of Insurance companies is significant. In many cases, it didn't investigate losses due to a localised calamity and, therefore, did not pay the claims.
- The State governments failed to release funds on time leading to delays in releasing insurance compensation. This defeats the very purpose of the scheme which is to provide timely financial assistance to the farming community.
- **Lack of Awareness and Grievance Redressal:** The farmers are not aware of the crop insurance schemes. There is a lack of a decent grievance redressal system and monitoring mechanism for speedy settlements of farmer complaints; at both the Centre and State Governments level.

- **Identification Issues:** Currently the PMFBY scheme doesn't distinguish between large and small farmers and thus raises the issue of identification. Small farmers are the most vulnerable class.

Way Forward

Awareness Generation: Awareness generation will be one of the major challenges in the smooth implementation of the scheme.

The Government is also seeking active involvement of all stakeholders especially States and implementing insurance companies for the conduct of publicity campaign/awareness programmes in the rural areas to build farmer awareness about crop insurance schemes.

INTERNATIONAL RELATIONS

Greater Male Connectivity Project: Maldives

Recently, Afcons, an Indian company, has signed a contract for the largest-ever infrastructure project in Maldives which is the Greater Male Connectivity Project (GMCP).

The project is the result of bilateral consultation between India and the Maldives and has been under discussion since the visit of India's External Affairs Minister to Male in September 2019.

Key Points

Greater Male Connectivity Project:

- It will consist of a 6.74 km-long bridge and causeway link between Male and nearby islands of Villingli, Gulhifalhu and Thilafushi. It will use renewable energy.
- The project is funded by a grant of USD 100 million and a Line of Credit (LOC) of USD 400 million from India.
- It is not only the biggest project India is doing in the Maldives but also the biggest infrastructure project in the Maldives overall.

Significance:

- It is considered as the economic lifeline for the Maldives and will provide a major boost to connectivity between the four islands accounting for about half of the Maldivian population.
- It will add dynamism to the Maldivian transport and economic activities.

Recent Developments:

- **Security Cooperation:** Earlier in August 2021, in the Deputy National Security Adviser-level meeting hosted by Sri Lanka, India, Sri Lanka and the Maldives had agreed to work on "four pillars" of security cooperation.
- **UNGA President:** In June 2021, India welcomed the election of Maldives' Foreign Minister as the President of the 76th session of the United Nations (UN) General Assembly (GA) for 2021-22.
- **Mou's:** In November 2020, India and the Maldives signed four Memorandums of Understanding (MoUs) related to High Impact Community Development Projects and on Cooperation in Sports and Youth Affairs.
- **Relief Package:** In August 2020, India had committed to Maldives a five-pronged package including air, sea, intra-island and telecommunications to help it deal with the economic impact of the Covid-19 pandemic.
- **Bilateral Bubble:** Maldives is the first South Asian country with which India started a bilateral air bubble during Covid-19 pandemic.

Way Forward

- This isn't only about an ambitious project involving both India and the Maldives. The terms of the agreement call for the completion of the bridge by 2023.
- For India, Maldives holds strategic importance and showing that it can deliver would help mitigate some concerns that may exist in the Maldives.
- In accordance with the Neighbourhood First Policy of the government, India remains a committed development partner for a stable, prosperous and peaceful Maldives.
- Given the economic hardships being faced by Maldives due to Covid-19 pandemic and previous debts, this project and previous packages will definitely warm up the relationship between both the countries.
- This will also provide a strategic edge to India over China with regards to Maldives.

SCIENCE AND TECHNOLOGY

Chikungunya Vaccine

Recently, International Vaccine Institute (IVI) has announced that Bharat Biotech's Chikungunya vaccine candidate (BBV87) has entered into Phase II and III clinical trials. Currently, there is no commercial chikungunya vaccine.

Key Points

About the Vaccine:

- BBV87 is an inactivated virus vaccine, similar to Covaxin.
- Inactivated vaccines contain viruses whose genetic material has been destroyed by heat, chemicals or radiation so they cannot infect cells and replicate, but can still trigger an immune response.
- Bharat Biotech's Chikungunya vaccine candidate was developed in partnership with the International Vaccine Institute (IVI).
- Development of Chikungunya Vaccine is an initiative of the United Nations Development Programme (UNDP), as part of the Global Chikungunya Vaccine Clinical Development Program (GCCDP).
- It was funded by the Coalition for Epidemic Preparedness Innovations (CEPI) with support from the Ind-CEPI mission of the Department of Biotechnology, Government of India.

Chikungunya:

- Chikungunya is a mosquito-borne viral disease first described during an outbreak in southern Tanzania in 1952.
- The name is derived from the local Kimakonde language and means "to become contorted", evoking the stooped appearance of patients suffering acute joint pain.

Transmission:

- It is transmitted to people through the bite of an infected mosquito.
- It is most often spread to people by *Aedes aegypti* and *Aedes albopictus* mosquitoes. These are the same mosquitoes that transmit dengue virus.
- Mosquitoes acquire the infection by biting infected humans or animals.
- Weather conditions also affect their breeding and survival.

Symptoms:

- Include severe joint pain, muscle pain, headache, nausea, fatigue and rashes.

Treatment:

- Currently, there are no vaccines or antiviral drugs available to cure Chikungunya, and the treatment is only focused on relieving the symptoms associated with the infection.
- **Reasons Behind the Spurt in Cases:** There has been an increasing incidence of vector borne diseases in urban, peri-urban and rural areas because of:
 - Haphazard urbanisation.
 - Deficient water and solid waste management leading to proliferation of mosquito breeding sites.
 - Absence of specific antiviral drug or vaccine.

Government Initiatives to Control Chikungunya:

- National Vector Borne Disease Control Programme (NVBDCP) is a comprehensive programme for prevention and control of vector borne diseases namely Malaria, Filariasis, Kala-azar, Japanese Encephalitis (JE), Dengue and Chikungunya.
- It works under the Ministry of Health and Family Welfare.

INDIAN ECONOMY

SAMRIDH Programme

Recently, the Ministry of Electronics & Information Technology (MeitY) has launched the 'Start-up Accelerators of MeitY for Product Innovation, Development and growth (SAMRIDH)' programme.

Key Points

- To create a conducive platform to Indian Software Product start-ups to enhance their products and secure investments for scaling their business.
- Focuses on accelerating the 300 start-ups by providing customer connect, investor connect, and international immersion in the next three years.
- To provide investment of up to Rs 40 lakh to the start-up based on current valuation and growth stage of the Start-Up through selected accelerators.
- Being implemented by MeitY Start-up Hub (MSH).
- MSH acts as a national coordination, facilitation and monitoring centre that will integrate all the incubation centres, start-ups and innovation related activities of MeitY.
- To further the Indian start-up growth which has seen the emergence of 63 unicorns and is now the third largest unicorn hub globally with a total valuation of USD 168 billion.
- "Unicorn" is a term used in the venture capital industry to describe a privately held startup company with a value of over \$1 billion.

Other Related Initiatives:

- Start Up India Fund
- Start-up Cells
- National Startup Advisory Council
- Atmanirbhar Bharat ARISE-Atal New India Challenge
- AIM-iCREST

BIODIVERSITY AND ENVIRONMENT

Children's Climate Risk Index: UNICEF

Recently, the United Nations Children's Fund (UNICEF) in collaboration with Fridays for Future launched a report named 'The Climate Crisis Is a Child Rights Crisis: Introducing the Children's Climate Risk Index'.

- It is the first comprehensive analysis of climate risk from a child's perspective.
- Earlier an analysis, based on Notre Dame Global Adaptation Initiative (ND-GAIN) index, had shown the impact of Climate Change on children across the world.

Key Points

Children's Climate Risk Index:

- It ranks countries based on children's exposure to climate and environmental shocks, such as Cyclones and Heatwaves, as well as their vulnerability to those shocks, based on their access to essential services.
- Pakistan (14th), Bangladesh (15th), Afghanistan (25th) and **India (26th)** are among four South Asian countries where children are at extremely high risk of the impacts of the climate crisis.

Indian Scenario:

- India is among four South Asian countries where children are most at risk of the impacts of climate change threatening their health, education, and protection.
- It is estimated that more than 600 million Indians will face 'acute water shortages' in the coming years, while at the same time Flash Flooding is to increase significantly in the majority of India's urban areas once the global temperature increase rises above 2 Celsius.
- Twenty-one of the world's 30 cities with the most polluted air in 2020 were in India.

Countries With Maximum Vulnerability:

- Young people living in the Central African Republic, Chad, Nigeria, Guinea, and Guinea-Bissau are the most at risk of the impacts of climate change.
- These children face a deadly combination of exposure to multiple climate and environmental shocks with a high vulnerability due to inadequate essential services, such as water and sanitation, healthcare and education.

Way Forward

Meet the Goal:

- In order to avoid the worst impacts of climate change, global net man-made emissions of carbon dioxide must be nearly halved by 2030, and reach "net zero" by 2050.

Scale up Social Protection System:

- Scale up adaptive and shock-responsive social protection systems – such as grants for pregnant mothers and children - to address the increasing impacts of climate change on children and their families.

United approach towards child rights:

More countries need to work towards their commitment in the Convention on the Rights of the Child to ensure every child is protected from poverty, for example by providing universal child benefits to improve children's well-being and build resilience.

IMPORTANT FACTS FOR PRELIM

KAZIND-21

The 5th edition of India-Kazakhstan Joint Training Exercise, "KAZIND-21" will be conducted in Kazakhstan.

Key Points

- The exercise is a joint training between both the Armies.
- The scope of Joint Exercise includes professional exchange, sharing experiences in Counter Insurgency/ Counter Terrorism operations, etc.
- Joint Military Exercise: Prabal dostyk.

Importance of Kazakhstan:

- First, its geo-strategic location; second, its economic potential, especially in terms of energy resources; and third, its multi-ethnic and secular structure.

- Kazakhstan is the most resource-rich country in Central Asia and is also India's largest trade and investment partner.
- India and Kazakhstan actively cooperate under the aegis of various multilateral fora including Confidence-Building Measures in Asia (CICA), Shanghai Cooperation Operation (SCO) and the United Nations (UN) organisations.

DAILY ANSWER WRITING PRACTICE

Qns. India has the potential to leverage artificial intelligence technology to build frameworks to empower people, create equity and achieve economic development. Discuss. (250 Words)

Ans.

Introduction

- It describes the action of machines accomplishing tasks that have historically required human intelligence. It includes technologies like machine learning, pattern recognition, big data, neural networks, self algorithms etc.
- As artificial intelligence (AI) becomes ubiquitous, India has the potential to leverage these massive datasets to build frameworks to empower people, create equity and race towards its goal of USD 1 trillion of economic value using digital technologies by 2025.

Body

Potential of AI in India

- **National Strategy For AI:** A recent PwC report indicated that AI can provide a global economic value addition of up to USD 15.7 trillion by 2030.
- Recognising this potential, the government released the National Strategy for Artificial Intelligence (NSAI) in June 2018.
- **Deregulation of Geospatial Sector:** Recently, the government has deregulated the geospatial sector. It can lead to transformation of various sectors such as infrastructure, health, and help in designing climate change resilient cities.
- **Reducing Energy Losses:** By using AI in the energy sector, renewable energy generators and Discoms can cut losses and increase efficiencies by better predicting grid load management, and ultimately making the adoption of renewables cost-effective.
- **AI solutions to Emerging Trends:** Within the government machinery, policymakers are moving forward with incorporating AI solutions for effective tax monitoring, data compliance etc.
- AI-based solutions on water management, crop insurance and pest control are also being developed.
- ICRISAT has developed an AI-power sowing app, which utilises weather models and data on local crop yield and rainfall to more accurately predict and advise local farmers on when they should plant their seeds.
- An AI-based flood forecasting model that has been implemented in Bihar is now being expanded to cover the whole of India to ensure that around 200 million people get alerts and warnings 48 hours earlier about impending floods.

Challenges with Wide Use of AI

- **Comprising Privacy:** AI systems learn by analyzing huge volumes of data and they keep adapting through continuous modelling of interaction data and user-feedback.
- Thus, with the increasing use of AI, the right to privacy can be under threat due to unauthorized access to one's activity data.
- **Disproportionate Power and Control:** Technology giants are investing heavily in regard to artificial intelligence, both at the scientific/engineering and also at the commercial and product development level.
- These big players have an unmatched advantage when compared to any ambitious competitor out there which is a symptom of data-oligarchic society.
- **Exacerbating Inequalities:** Using artificial intelligence, a company can drastically cut down on relying on the human workforce, and this means that revenues will go to fewer people. AI could compound digital exclusion.

Way Forward

- **Create Enabling Ecosystem:** We must create enabling environments in schools through multidisciplinary approaches with AI at their core to empower the next generation to play an essential role in designing practical AI solutions for India and in India.

- **Public-Private Partnership (PPPs):** Recently, an initiative, Future Skills Prime, has exhibited the strength of public-private partnership by aggregating digital-ready courses for consumers across citizens, government employees and businesses.
- Thus, such initiatives hold immense promise for the role of civil society and private sector in pursuing responsible AI through collaboration.
- **Uniform Standard Rules:** Standardising the rules of the game will help expand markets for positive AI-driven goods and services.
- **Collaborate Every Stakeholder:** As AI continues to impact every facet of our daily lives, it is essential for all the stakeholders — innovators, policymakers, academicians, industry experts, philanthropic foundations, multilaterals and civil society — to collaborate to help steer AI's future towards benevolent purposes.

DAILY QUIZ

1. Consider the following statements:
 - a) Fundamental rights form the basis of providing reservations to Backward classes.
 - b) The concept of the Creamy layer was proposed in the Indra Sawhney case.
 - c) The Rohini Commission is constituted to complete the task of sub-categorising the OBC category.
 Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) 1 and 3 only
 - d) **1, 2 and 3**
2. With reference to the 'Children's Climate Risk Index', consider the following statements:
 1. It is launched by the United Nations Children's Fund (UNICEF) in collaboration with Fridays for Future.
 2. India is among four South Asian countries where children are most at risk of the impacts of climate change.
 Which of the statements given above is/are correct?
 - a) 1 only
 - b) 2 only
 - c) **Both 1 and 2**
 - d) Neither 1 nor 2
3. Consider the following statements:
 1. Chikungunya is transmitted to people through the bite of an infected mosquito.
 2. BBV87 vaccine is a chikungunya vaccine developed by Bharat Biotech in partnership with the International Vaccine Institute (IVI).
 3. BBV87 was funded by the Coalition for Epidemic Preparedness Innovations (CEPI) with support from the Ind-CEPI mission.
 Which of the statements given above is/are correct?
 - a) 1 only
 - b) 1 and 3 only
 - c) 2 only
 - d) **1, 2 and 3**
4. Consider the following statements regarding SAMRIDH Programme:
 1. It has been launched by the Ministry of Electronics & Information Technology (MeitY).
 2. It aims at creating a conducive platform to Indian hardware product start-ups.
 Which of the statements given above is/are correct ?
 - a) **1 only**
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2
5. Consider the following statements:
 1. Right to be Forgotten (RTBF) is a part of the broader right of privacy under Article 21.
 2. The right to privacy is declared as a fundamental right in K.S. Puttaswamy v. Union of India case in 2017.
 Which of the statements given above is/are correct?
 - a) 1 only
 - b) 2 only
 - c) **Both 1 and 2**
 - d) Neither 1 nor 2