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AI 3019

**SUSTAINABLE AGRICULTURE
AND FOOD SECURITY**

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UNIT V

POLICES AND PROGRAMMES FOR SUSTAINABLE AGRICULTURE AND FOOD SECURITY

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Disadvantages:

1. **High Indebtedness:**

Improper utilization or excessive borrowing can lead to debt traps, particularly for small farmers, resulting in long-term financial distress.

2. **Diversion of Funds:**

There is a risk that credit obtained may be diverted for non-agricultural purposes, reducing the intended impact on farm productivity.

3. **Difficulty in Repayment:**

Poor harvests, natural disasters, or market price crashes may affect farmers' ability to repay loans, leading to defaults.

4. **Inefficiencies in Credit Distribution:**

Institutional credit often fails to reach small and marginal farmers effectively, leading to reliance on informal lenders who charge exorbitant interest rates.

5. **Bureaucratic Delays and Corruption:**

Procedural delays, documentation issues, and corruption in the disbursement process can hinder access to timely credit.

6. **Limited Coverage and Exclusion:**

Despite policy efforts, many landless farmers, tenant farmers, and sharecroppers often remain excluded from formal credit facilities.



Fig 5.2 Agricultural Credit Policy

5.3 Crop insurance

Crop insurance is purchased by agricultural producers, including farmers, ranchers, and others to protect themselves against either the loss of their crops due to natural disasters, such as hail, drought, and floods, or the loss of revenue due to declines in the prices of agricultural commodities.

Agriculture in India is highly susceptible to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the Government of India introduced many agricultural schemes throughout the country. Crop insurance is one such scheme

(i) **Pradhan Mantri Fasal Bima Yojana**

The new Crop Insurance Scheme is in line with One Nation – One Scheme theme. It incorporates the best features of all previous schemes and at the same time, all previous shortcomings/weaknesses have been removed.

The highlights of this scheme are as under:

There will be a uniform premium of only 2% to be paid by farmers for all Kharif crops and 1.5% for all Rabi crops. In case of annual commercial and horticultural crops, the premium to be paid by farmers will be only 5%. The premium rates to be paid by farmers are very low and balance premium will be paid by the Government to provide full insured amount to the farmers against crop loss on account of natural calamities.

There is no upper limit on Government subsidy. Even if balance premium is 90%, it will be borne by the Government.

Earlier, there was a provision of capping the premium rate which resulted in low claims being paid to farmers. This capping was done to limit Government outgo on the premium subsidy. This capping has now been removed and farmers will get claim against full sum insured without any reduction.

The use of technology will be encouraged to a great extent. Smart phones will be used to capture and upload data of crop cutting to reduce the delays in claim payment to farmers. Remote sensing will be used to reduce the number of crop cutting experiments.

(ii) Weather based Crop Insurance

Weather Based Crop Insurance aims to mitigate the hardship of the insured farmers against the likelihood of financial loss on account of anticipated crop loss resulting from incidence of adverse conditions of weather parameters like rainfall, temperature, frost, humidity etc.

Let us look at risks covered & exclusions?

Risks: Following risks leading to crop loss are covered under the scheme:-

Yield losses (standing crops, on notified area basis): Comprehensive risk insurance is provided to cover yield losses due to non-preventable risks, such as (i) Natural Fire and Lightning (ii) Storm, Hailstorm, Cyclone, Typhoon, Tempest, Hurricane, Tornado etc. (iii) Flood, Inundation and Landslide (iv) Drought, Dry spells (v) Pests/ Diseases etc.

Prevented sowing (on notified area basis):- In cases where majority of the insured farmers of a notified area, having intent to sow/plant and incurred expenditure for the purpose, are prevented from sowing/planting the insured crop due to adverse weather conditions, shall be eligible for indemnity claims upto a maximum of 25% of the sum-insured

Post harvest losses (individual farm basis): Coverage is available upto a maximum period of 14 days from harvesting for those crops which are kept in “cut & spread” condition to dry in the field after harvesting, against specific perils of cyclone / cyclonic rains, unseasonal rains throughout the country.

Localized calamities (individual farm basis): Loss / damage resulting from occurrence of identified localized risks i.e. hailstorm, landslide, and Inundation affecting isolated farms in the notified area.

Exclusions: Risks and Losses arising out of following perils shall be excluded:- War & kindred perils, nuclear risks, riots, malicious damage, theft, act of enmity, grazed and/or destroyed by domestic and/or wild animals, In case of Post–Harvest losses the harvested crop bundled and heaped at a place before threshing, other preventable risks.

Crop insurance schemes in India

Four insurance schemes are being implemented namely by the government to support farmers.

- Pradhan Mantri Fasal Bima Yojana (PMFBY)
- Weather based Crop Insurance Scheme (WBCIS)
- Coconut Palm insurance scheme (CPIS) and
- Pilot Unified Package insurance scheme UPIS) (45 districts).

Objectives of Crop Insurance:

1. **Risk Mitigation:** Protect farmers from financial losses due to crop failure.
2. **Stabilize Income:** Ensure steady income for farmers, even during adverse conditions.
3. **Encourage Investment:** Motivate farmers to adopt modern farming techniques and increase productivity.
4. **Promote Agricultural Sustainability:** Safeguard farmers' livelihoods and ensure food security.

Step-by-Step Crop Insurance Process:

1. Registration and Enrollment:

- **Eligibility:** Farmers who own or cultivate agricultural land can apply.
- **Enrollment Period:** Usually tied to crop seasons (Kharif and Rabi seasons).
- **Documents Required:**
 - Aadhaar Card
 - Land ownership records or tenancy agreement
 - Bank account details
 - Sowing certificate (if applicable)

- **Application Methods:**

- Through banks, cooperative societies, or Common Service Centers (CSCs).
- Online through portals such as **PMFBY Portal** or State Agricultural Department websites.

2 **Premium Payment:**

- Farmers pay a **nominal premium** (subsidized by the government), which varies based on the type of crop and season.
 - **Kharif Crops:** 2% of the sum insured
 - **Rabi Crops:** 1.5% of the sum insured
 - **Commercial/ Horticultural Crops:** 5% of the sum insured
- Government pays the balance premium as a subsidy.

3 **Crop Monitoring and Risk Assessment:**

- Insurance companies and government agencies monitor weather patterns, crop growth, and other risk factors.
- Remote sensing technology, satellite imagery, and periodic field surveys are often used to assess crop conditions.

4 **Reporting Crop Losses:**

- **Notification Timeline:** Farmers must inform the concerned authorities within 72 hours of the occurrence of any crop loss.
- **Reporting Channels:**
 - Mobile Apps (such as PMFBY App)
 - Call Centers
 - Gram Panchayat or Local Agriculture Office
- **Details Required:**
 - Policy number
 - Description of crop loss
 - Photographs (if applicable)

5 **Loss Assessment and Verification:**

- **Preliminary Inspection:** Local officials conduct initial field inspections.
- **Detailed Loss Assessment:**
 - Use of Crop Cutting Experiments (CCEs) to determine yield.
 - Assessment of damage based on established norms.
- **Loss Threshold:** Compensation is provided if losses exceed the pre-set threshold or guaranteed yield.

6 Claim Settlement and Payout:

- **Calculation of Compensation:**
 - Based on the difference between the actual yield and the threshold yield.
 - Claim amount = $(\text{Threshold Yield} - \text{Actual Yield}) \times \text{Sum Insured} / \text{Threshold Yield}$.
- **Payout Process:**
 - Direct Benefit Transfer (DBT) to farmers' bank accounts.
 - Timeframe: Generally within 2 months after the completion of loss assessment.

Challenges in Crop Insurance:

1. **Delayed Claim Settlement:** Farmers often face delays in receiving compensation.
2. **Low Awareness:** Many farmers are unaware of the process and benefits.
3. **Inaccurate Loss Assessment:** Manual assessment may sometimes lead to discrepancies.
4. **Exclusion of Tenant Farmers:** Tenant farmers and sharecroppers often lack formal land documents.



Fig 5.3 Crop Insurance

5.4 Policies of Natural Resources Use

Policies for Natural Resource Use in India

1. National Forest Policy (1988):

- Aims to maintain ecological balance by preserving forests and increasing forest cover to 33%.
 - Emphasizes conservation of biodiversity, soil and water conservation, and meeting the needs of rural communities.
 - Encourages joint forest management (JFM) with local communities.
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2. National Water Policy (2012):

- Promotes sustainable management of water resources by prioritizing water use for drinking, irrigation, and industry.
 - Advocates integrated water resource management (IWRM) and equitable distribution.
 - Encourages rainwater harvesting, groundwater recharge, and water conservation practices.
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3. National Environmental Policy (2006):

- Focuses on sustainable development while ensuring the protection of environmental resources.
 - Promotes efficient use of natural resources and encourages the adoption of clean technologies.
 - Aims to conserve biodiversity and protect ecosystems.
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4. National Mineral Policy (2019):

- Aims to promote sustainable mining practices and ensure scientific exploration of mineral resources.

- Encourages eco-friendly and safe extraction methods while protecting the environment.
 - Emphasizes the welfare of mining-affected communities and rehabilitation.
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5. National Biodiversity Action Plan (2008):

- Seeks to conserve biodiversity, promote sustainable use of resources, and ensure equitable benefit-sharing.
 - Encourages community participation and traditional knowledge conservation.
 - Emphasizes the protection of endangered species and ecosystems.
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6. Soil and Land Use Policy:

- Focuses on preventing soil erosion, promoting soil fertility, and ensuring sustainable land management.
 - Encourages afforestation, watershed management, and land restoration.
 - Promotes scientific land-use planning and management.
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7. Renewable Energy Policy (2022):

- Aims to promote the use of renewable energy sources such as solar, wind, biomass, and hydropower.
 - Supports the adoption of clean and green technologies to reduce dependency on fossil fuels.
 - Encourages decentralized energy production in rural areas.
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8. Agricultural Policy:

- Focuses on promoting sustainable agricultural practices, water-use efficiency, and soil health.

- Encourages organic farming, natural farming, and integrated pest management.
 - Emphasizes climate-resilient agriculture to mitigate the impact of climate change.
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9. Coastal Regulation Zone (CRZ) Policy:

- Regulates activities along coastal areas to protect ecosystems and prevent environmental degradation.
 - Defines zones for permissible and restricted activities to maintain ecological balance.
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10. Wildlife Protection Act (1972):

- Provides a legal framework for the protection of wildlife, endangered species, and natural habitats.
- Establishes protected areas such as national parks, sanctuaries, and biosphere reserves.

These policies collectively aim to promote the sustainable use of natural resources while ensuring environmental conservation and equitable benefit-sharing.



Fig 5.4 Policies of Natural Resources Use

5.5 Policies for Sustainable Livelihoods in India

1. Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) – 2005

- Provides guaranteed 100 days of wage employment per year to rural households.
 - Promotes sustainable livelihoods by creating durable assets such as water conservation structures, rural roads, and soil improvement projects.
 - Focuses on empowering marginalized groups, especially women and vulnerable communities.
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2. National Rural Livelihoods Mission (NRLM) – 2011

- Aims to reduce poverty by promoting self-employment and entrepreneurship through Self-Help Groups (SHGs).
 - Facilitates skill development, access to credit, and market linkages for rural households.
 - Promotes sustainable livelihoods by encouraging agricultural diversification, non-farm activities, and micro-enterprises.
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3. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) – 2014

- Provides skill development and vocational training to rural youth to enhance employability.
 - Supports sustainable livelihoods by enabling trained individuals to secure better wages and access to skilled jobs.
 - Targets marginalized communities such as SC/ST, minorities, and differently-abled persons.
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4. National Policy on Skill Development and Entrepreneurship – 2015

- Aims to equip the workforce with relevant skills and promote entrepreneurship.
 - Focuses on bridging the skill gap in agriculture, construction, manufacturing, and services.
 - Encourages self-employment and micro-enterprises for sustainable livelihood generation.
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5. Rashtriya Krishi Vikas Yojana (RKVY) – 2007

- Enhances agricultural productivity and income generation through technology adoption and better resource management.

- Promotes diversification of agriculture and encourages allied activities such as dairy, poultry, and fisheries to ensure livelihood security.
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6. Pradhan Mantri Kaushal Vikas Yojana (PMKVY) – 2015

- Provides short-term skill training and certification to youth for various trades and industries.
 - Supports livelihood sustainability by equipping individuals with industry-relevant skills and creating employment opportunities.
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7. Integrated Watershed Management Programme (IWMP) – 2009

- Aims to restore degraded ecosystems and promote sustainable land use practices.
 - Improves soil fertility, enhances water availability, and supports agro-based livelihoods.
 - Encourages sustainable livelihoods through community participation in watershed development.
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8. National Agroforestry Policy – 2014

- Promotes agroforestry practices that integrate trees with crops and livestock for sustainable livelihoods.
 - Enhances biodiversity, reduces soil degradation, and provides additional income to farmers through timber and non-timber forest products.
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9. Startup India and Stand-Up India – 2016

- Encourages entrepreneurship and innovation in rural and urban areas.
 - Supports sustainable livelihoods by promoting self-employment and creating new job opportunities.
 - Provides financial support, mentoring, and incubation facilities for startups and small enterprises.
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10. Forest Rights Act (FRA) – 2006

- Recognizes the rights of forest-dwelling communities and empowers them to manage forest resources sustainably.
 - Enhances livelihoods by allowing local communities to harvest minor forest produce and benefit from forest resources.
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11. Paramparagat Krishi Vikas Yojana (PKVY) – 2015

- Promotes organic farming and sustainable agricultural practices.
- Supports livelihood security by reducing input costs and ensuring better market access for organic produce.

12. Pradhan Mantri Matsya Sampada Yojana (PMMSY) – 2020

- Enhances the productivity and profitability of fisheries and aquaculture.
- Promotes sustainable livelihoods by providing infrastructure, skill development, and financial assistance to fish farmers.

13. National Policy for Farmers – 2007

- Focuses on improving the economic well-being of farmers and promoting sustainable agriculture.
- Encourages diversification, value addition, and better market access to ensure sustainable livelihoods.

14. National Urban Livelihoods Mission (NULM) – 2013

- Aims to reduce urban poverty by enabling self-employment and skill-based wage employment.
- Promotes sustainable livelihoods through urban micro-enterprises and skill development.

15. Green India Mission (GIM) – 2014

- Promotes afforestation, ecosystem restoration, and livelihood support for forest-dependent communities.
- Aims to increase forest-based livelihoods while enhancing ecological sustainability.

These policies collectively aim to empower rural and urban communities, ensure sustainable livelihoods, and promote inclusive economic growth.

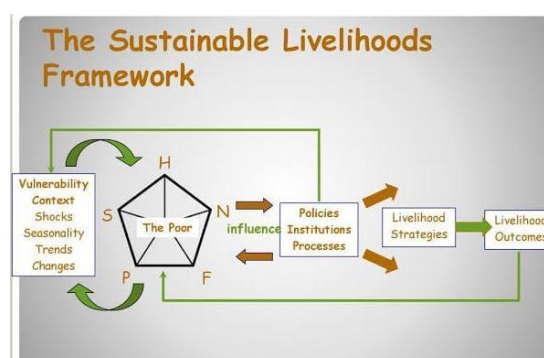


Fig 5.5 Policies for Sustainable Livelihoods in India