

# KAVERIS IAS:::AGRICULTURE OPTIONAL

2023: PAPER I: Analysis:

**Q. 2A. What do you understand by agroecology? How does agroecology help in crop distribution and sustainable food production. 20 marks. (criteria for Answering)**

- Give a Definition for Agroecology
- Bring some examples, Structure of Agroecology & their case studies.
- Imp Principles of Agroecology which support the sustainable food Production (in Precise)
- Significance of Agroecology (Elaborate in brief)
- Challenges in Achieving the above objectives ((in Precise)
- Imp steps to enhance efficacy in Agro ecology (in Precise)
- Government Intervention in promoting Agroecology Principles; Ex: Soil Health card scheme, watershed management Initiatives & etc.
- Conclusion.

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**Q. 1A: Answer the following in about 150 words: 10 marks for each. Discuss the response of crop plants to rising temperature and carbon dioxide levels in relation to climate change, with suitable examples.**

- Introduction about Climate change
- Observation of IPCC report on rising temperatures & CO2 levels
- Positive and negative response of Plants ( Both C3 & C4 ) to rising temperatures & CO2 levels.
- Steps to Address warming temp
- Global convention in this regard
- Conclusion.

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**Q:1.B. How can the cropping intensity and farm profitability be enhances with the incorporation of different types of specialty corn in existing cropping systems?**

- Introduction about Cropping systems & Intensity in relation to farm Profitability.
- Types of Corn varieties like pop corn, starch corn & baby corn varieties cultivation along with existing cropping systems. Explain with example of such cropping region wise.
- Challenges in such incorporation.
- Govt Measures to improve such cropping scheme.
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 1C: What are non – wood forest products? How do they help local community development in terms of economy and employment.**

- Introduction about forest Products
- Enlist All Non wood forest products like Lac, Tendu leaves, Non mulberry, Resin & etc.
- Role Of NWFP in General Economy
- Role of NWFP in Employment Generation in Tribal development.
- Government intervention like TRIFED & PM Vana dhana scheme
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 1D: Briefly write about cultural and chemical weed control methods of soybean and wheat.**

- Introduction about Soyabean & wheat Crop production in India.
- It's economic importance in brief
- Major weed species in soya & wheat Crop in india
- Culture methods & Herbicide chemical in control of weeds.
- Recent Advancement in control of weeds in above crop like Allelochemical & etc.
- Conclusion.

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# KAVERIS IAS:::AGRICULTURE OPTIONAL

2023: PAPER I: Analysis:

**Q. 1E: Give an account of the genesis of soil structure and its significance to crop production.**

- Give Brief note on Origin of soil structure
- Various form of soil Aggregates
- Importance of soil structure in Agriculture.
- Latest technological practice to enhance soil structure like Summer ploughing, Mulching, Conservation tillage & etc.
- Conclusion.

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- Significance of Agroecology ( Elaborate in brief)
- Challenges in Achieving the above objectives ((in Precise)
- Imp steps to enhance efficacy in Agro ecology (in Precise)
- Government Intervention in promoting Agroecology Principles; Ex: Soil Health card scheme, watershed management Initiatives & etc.
- Conclusion.

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# KAVERIS IAS:::AGRICULTURE OPTIONAL

2023: PAPER I: Analysis:

**Q. 2B: Classify the parasitic weeds on the basis of their parasitism. Explain the preventive measures and integrated management practices for orabanche. 20 marks.**

- What you mean by Parasitic weeds?
- Classification - total parasitic & semi Parasitic weeds which includes both Root & stem parasites.
- Nature & effects of Orabhanche weed in crop production.
- Prevention & curative measures to minimise the weed spp.
- Conclusion.

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**Q. 2C: Describe the concept of microbial consortia and its role in crop residue management. 10 marks.**

- Group of Microbial consortium
- Role of microbes in Crop residue management: Example: Pusa Decomposer Technology in Residue management
- Bring both Insitu & exsitu Residue management. Ex: Phytoremediation.
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 3A: Give the specific features of organic farming and Natural farming. Briefly discuss the preparation and the role of biodynamics and cow pat pit in organic crop production. 20 marks.**

- Give Meaning of Both Organic farming & Natural farming
- Features of both farming
- Principles of Natural & organic farming.
- Procedure for making biodynamic pat pit compost for organic farming.
- Govt support for promoting such methods in rural areas.
- Conclusion.

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**Q. 3B: Classify the agro forestry and explain in details the importance of social forestry in Indian context. 20 marks.**

- Introduction about Agro forestry & Example
- Classification of Agroforestry based on Structural components, Ecology & other criteria basis.
- Role of Social Forestry
- Case studies of social forestry like Saalu marada Thimmaka.
- Govt Programme to promote social forestry: Ex: CAMPA, National Green mission and etc.
- Conclusion.

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**Q. 3C: Write about the various tools used in proximal and remote sensing. 10 marks.**

- Introduction about Proximal & Remote sensing
- How it works & principle involved.
- Components & Tools Of proximal and remote sensing: ex: yield mapping, Variable rate tiller, GIS, and etc.
- Significance of such technology in Eco system Analysis.
- Govt support in this case
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 4A: Discuss the primary pathways of gaseous nitrogen losses from soil and the factors affecting nitrogen losses. 20 marks.**

- Introduction about Nitrogen Losses
- Various form of Nitrogen Losses
- Reason for such losses
- Primary Pathways for Nitrogen Losses
- How it can be Addressed?
- Conclusion.

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**Q. 4B: Discuss the following in relation to groundnut; 20 marks.**

- a) Role of macro and micro nutrients
- b) Pegging
- c) Critical growth stages for irrigation
- d) Weed management
- e) Region specific cropping system.

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**Q. 4C: Give a brief note on GIS based soil mapping and yield mapping.  
10 marks.**

- What you understand about GIS
- How it works?
- Components of GIS
- Significance of GIS in Agriculture
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 5 A: Discuss the ways and means of minimizing erosion for conserving soil.**

- Introduction About soil erosion & soil conservation
- Explain Agronomic, Biological & Engineering measures to minimise erosion. Ex: Broad bed furrow, Random ridge tiding, Mulching, deep tillage, Intercropping & etc.
- Conclusion.

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**Q. 5 B: what are the major aims of irrigation? Discuss the different types of irrigation efficiencies are used in adjudging the most efficient irrigation method.**

- Introduction about Irrigation & it's command area in India as for economic survey.
- Objective of Irrigation.
- Types of Irrigation efficiency include water use efficiency, consumptive use efficiency, water convenience efficiency and other.
- Imp measures to improve irrigation efficiency in crop production.
- Conclusion.

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2023: PAPER I: Analysis:

**Q5C: Discuss on the various issues related to farm women empowerment. How do self help groups play major role in empowering farm women's?**

- Introduction about Farm women empowerment
- various issues involved in empowerment of farm women
- Role of SHG in women empowerment: bring our some case studies.
- Govt intervention to promote women empowerment. Ex: SHG Bank linkage & 33% of reservation for women bill and etc.

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2023: PAPER I: Analysis:

**Q. 5 D: Explain the important types of agricultural markets in India?**

- Introduction About Agril Market in India
- Classification of such markets based on various criteria: ex: volume of produce, Nature of produce, market structure like monopoly, duopoly , oligopoly & other markets like Grain market, vegetable market, commodity markets and etc.
- Important government initiative to promote markets in agriculture.
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 5E: Discuss the efforts of the government of India for extension, renovation and modernization of irrigation projects.**

- Introduction about Irrigation Projects
- Example of Such projects in India
- Role Har ket ko paani initiative, Integrated watershed management & other initiatives to enhance irrigation potential in India
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 6 A: Elaborate on the various problems encountered in agricultural production at dry land areas of Bundelkhan region of Uttarpradesh and Deccan plateau of Andhra Pradesh. Also explain the probable solutions to minimize the problems. 20 marks.**

- Introduction about Dryland agril in India & it's catchment area as for economic survey
- Problems faced by Farmers in Bundelkhand region
- Problems faced by Farmers in Deccan plateau
- Imp measures to minimise problems for both region. Explain with example.
- Imp Govt measures like Role of NICRA, PM Aasha , watershed management scheme and etc
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 6 B: Discuss the management of practices for improving the crop yield potential in regions where poor quality water is available for irrigation. 20 marks.**

- What you understand by Quality of irrigation water
- Basis for such classification with example
- Management practices for use poor quality water in agriculture production
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 6 C: Explain the roles of various NGOs in agriculture extension and socio – economic upliftment of landless agricultural laborers. 10 marks.**

- Introduction about Extension In Agriculture
- Role of NGOs in Agril development
- Status of landless agriculture labour today & their social and economic conditions
- Important measures to uplift the social economic conditions of landless agriculture labour
- Government plans to improve welfare of such agril labour.
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 7 A: Write the mains functions of Directorate of marketing and inspection. Discuss the roles of AGMARK and e – NAM in agriculture marketing. 20 marks.**

- Introduction about Agriculture marketing in India
- Functions of Directorate of Marketing and inspection
- Role of AGMRK in Grading and standardization
- How e NAM works ? Its functions.
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 7 B: How do FPOs help in empowering the farmers addressing their needs? Describe the role of KVK in climate resilient agriculture, citing suitable examples. 20 marks.**

- Role of FPOs in Meeting needs of farmers.
- Challenges involved & Govt measures in this regard
- Role of KVK in dissemination of Technology in climate resilient Agriculture.  
Ex: Explain of SRI comparison to traditional paddy cultivation to the farmers of Arid & semi arid regions farmers.
- Conclusion

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2023: PAPER I: Analysis:

**Q. 7 C: Discuss the role of integrated watershed management in rainfed agriculture. 10 marks.**

- What you understand by watershed?
- Landforms of watershed area
- Significance of watershed to local farmers
- Important practices used in watershed management (in precise)
- Govt Programme for developing watershed models in country ex: DDP, DPAP & etc.
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 8 A: What is the need for agricultural price policy? Write its objectives and Discuss the criteria for deciding MSP for each crop. 20 marks.**

- Introduction about Agriculture price policies like MSP, Buffer stock, Kissan credit card & fasal bima Yojana.
- objective of such policy for welfare of farmers?
- How MSP is determined? Explain A2, A2 & FL method & C 2 method and factors considered in each method.
- Way forward.

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2023: PAPER I: Analysis:

**Q.8B: why are the evaluation of extension programmes needed? Explain the various types of evaluation and also the steps involved in the evaluation process. 20 marks.**

- Introduction about Extension programme
- Why evaluation of extension program needed?
- Important methods of Extension programme evaluation
- Process of evaluation of extension program in India
- Case studies in recent years for such evaluation
- Conclusion.

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2023: PAPER I: Analysis:

**Q. 8 C: Discuss the causes of waterlogging and its effects on crop production. 10 marks.**

- What you understand by water logging?
- Imp waterlogging prone areas in India ( Mapping work needed)
- Causes for water logging? Explain both natural & man made factors with example.
- Impact of water logging in crop production
- Important steps to minimize water logging in India?
- Conclusion.

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**Admission Open for:**

- ❖ Offline & Online batch for Agriculture Optional
- ❖ Daily Answer writing Programme (on topic wise followed by Section wise & comprehensive Test)
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- ❖ PYQ Analysis on Daily basis ( Customized ones)

Thanks. KAVERIS IAS.

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