

Class-X ch-4 [Geography] Agriculture

- Introduction

- Agriculture and our dependence over it.
[Industry, food grains, Occupation]

- What we are going to learn in this chapter?

- Types of farming
- Technological and Institutional reforms
- Cropping pattern
- Food Security
- Major Crops
- Impact of globalisation on Agriculture

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• Types of farming [Primitive Subsistence farming]

→ Primitive Subsistence farming

• Primitive Methods [Tools, Monsoon, Natural fertility]

* Slash and burn



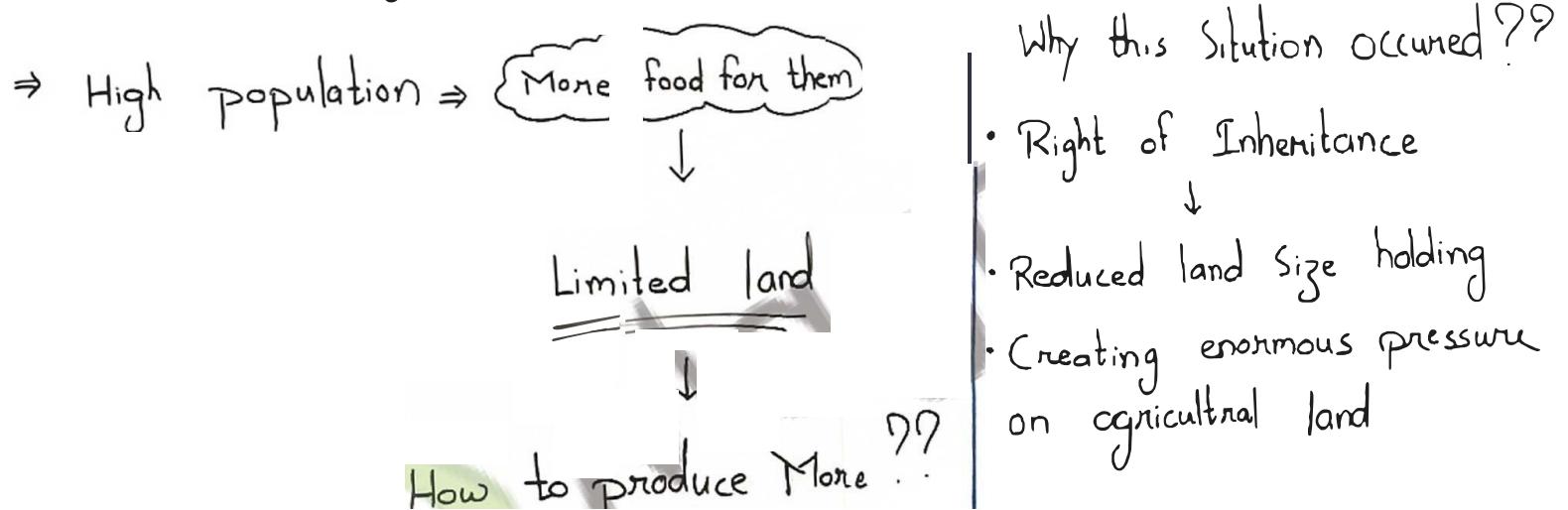
- Shifting farming
- Natural replenishing
- Known by various name



* Jhuming in north-eastern

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Types of farming [Intensive Subsistence farming]



- Labour Intensive
- Heavy doses of biochemical inputs and irrigation

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Types of farming [Commercial farming]

→ Modern Inputs [HYV seeds, chemicals, fertilisers, Insecticides and Pesticides for Higher productivity]

→ Commercialisation vary from one region to another.

- Ex : Wheat and Rice

features

- Single Crop is grown on a large area
- Interface of agriculture and Industry
- Capital Intensive, Migrant labourers, Produce raw material
- Connectivity to market and processing Industries.

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Cropping pattern

→ Three main type of Cropping Season are:



Sowing Period

(i) Kharif

onset of Monsoon [June - July]

(ii) Rabi

In winter [Oct - Nov]

(iii) Zaid

March - April

May - June

Harvesting period

In September - October

Summer [March - April]

Crops

Paddy, Maize, jowar, bajra
tur, Moong, urad, Cotton, Jute
groundnut and Soyabean

Wheat, barley, peas
grams and Mustard

watermelon, Muskmelon
cucumber, vegetable and
fodder crops.

Irrigation

Rainfall

Western temperate Cyclone
and Cannals.

Private Source of
irrigation ex: Tubewell
lakes and well.

→ Three Types of Paddy Crops → Aus, aman and Boro

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<u>Major Crops</u>	<u>Crops [Grains] [Sowing Season]</u>	<u>Temperature</u>	<u>Rainfall</u>	<u>area</u>	<u>state</u>	<u>key point</u>
Rice	Kharif Crop	Required 25°C	Above 100 cm	Northern plains North-eastern states Deltaic Region	Orissa W.B., Bihar T.N.	Most important Cereal Crop
Wheat	Rabi Crop	Cool growing Season Bright Sunshine during Harvest.	50 to 75 cm	Ganga - Sutaj plain Black Soil region of Deccan	Punjab, Haryana U.P. and M.P.	Second Most imp. Cereal Crop.
Maize	Kharif Crop	21°C to 27°C	60° - 110° [India 40]	old alluvial tracks	U.P., Bihar, MP	used as both food and fodder
Pulses [Ankan, urad moong, Masur Peas and Gram]	Depend on (crops.)	25°C to 30°C	Average 45 cm Rainfall.	Evenly distributed all over the Country	M.P., Rajasthan U.P., Karnataka	Largest producer and consumer [vegetarians]

Millets [High nutritional value]

Jowar → Third Most important Crop, Rainfed Crop, Maharashtra is largest producer.

Bajra → Grows well on Sandy Soil and Black Soil, Rajasthan is largest producer.

Ragi → Crop of dry region, grows well on Red, Black, Sandy and loamy Soil. Karnataka is largest Producer.

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Major Crops [food crops other than grains] - I

(i). Sugarcane

Temperature

21°C to 27°C

Rainfall

75 cm to 100 cm

- Tropical as well as Sub-tropical Crop.
- Need Manual labour.
- India is Second largest producer.
- Raw Material / source of Jaggery, khandsari, Sugar and Molasses.
- U.P., Maharashtra, Karnataka.

(ii). Oil Seeds

- Groundnut, Mustard, Coconut, Sesamum, Soyabean, Castor Seed, Linseed and Sunflower.
- used in production of Soap, Cosmetics and ointments.
- Groundnut, Kharif Crop, Major oil Seed.
- Andhra Pradesh is largest producer.

(iii). Horticulture Crops

- India is largest Producer of fruits and vegetables.
- Mangoes of Maharashtra A.P and U.P., Oranges of Nagpur and cherapunjee. Banana of Kerala, lichi and Guava of U.P and Bihar etc.
- India produces 13% of world's vegetable.
- Imp producer of Cauliflower, Brinjal, potato

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Major Crops [food crops other than grains] - II

(iv). Tea

- Tropical as well as subtropical Crops
- Plantation Crops
- Beverage Crop
- Grow well on deep and fertile well drained Soil.
- Requires warm and moist, frost-free climate.
- frequent and evenly distributed Rainfall
- labour intensive Industry
- Processed within tea garden to restore freshness.
- Assam, Darjeeling Hills, Jalpaiguri District of W.B

(v) Coffee

- Indian Coffee is known for its quality. Arabic variety brought from Yemen.
- India Produces 4% of world Coffee Production.
- Initially produced in Baba Budan Hills. Now also its production is confined to Nilgiri in Karnataka, Kerala and T.N

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Major Crops [Non - food Crops]

(i) Rubber

- Equatorial Crop, but can be grown in tropical and Sub-tropical areas.
- It requires Moist and Humid Climate.
- Rainfall more than 200 cm
- Temperature more than 25° C
- Imp Industrial Raw materials.
- Major areas → Kerala, T.N, Meghalaya, Andaman and Nicobar.

(ii). Fiber Crops

- Cotton, jute, hemp and Natural Silk are Major fiber Crops.
- Silk → Cocoons of Silkworms → fed on Mulberry leaves.

[Semiculture]

• Cotton

- Raw material for Cotton textile Industry.
- Third largest producer.
- Grows well on Black soil [MHR]
- High temp, low rainfall and 220 frost free days, Bright Sunshine.
- Maharashtra, M.P., Gujarat

• Jute

- known as Golden fiber
- High temperature and well drained fertile soil of flood Plains.
- used for Making variety of Product ex: Mats, Rope, Carpets etc.
- losing market due to High Cost and Synthetic fiber [Nylon].

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→ Technological and Institutional Reforms

- Why it is required ??

Institutional Reforms :

- Collectivisation, Consolidation of holdings , Cooperation and abolition of Zamindari.
- Land Reforms was focus of first five year plan.
- Provision for Crop Insurance against drought, flood Cyclone, fire and disease.
- Establishment of Grameen banks and Cooperative Societies for providing loans at low interest Rate.
- KCC , PAIS , MSP etc.

⊕

revolution [operation flood]

- weather bulletins, Agricultural programmes for farmer and Radio and Television
- Subsidy on Agricultural products

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Bhoodan - Gramdan Movement

- Vinoba Bhave [spiritual heir of Mahatma gandhi]
- Idea of Gramswarajya and Padyatra =
- Incident in Pochampalli, A.P
- Announcement of Shri Ram Chandra Reddy [to give 80] = Bhoodan
acres of land to 80 land-less villagers.
- As the Idea spread, zamindars offered the villages [owned by them to be distributed among landless] = Gramdar



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- Contribution of agriculture to the national Economy

→ Share in GDP(\downarrow) \Rightarrow Share in Employment (High \uparrow)

63% in 2001

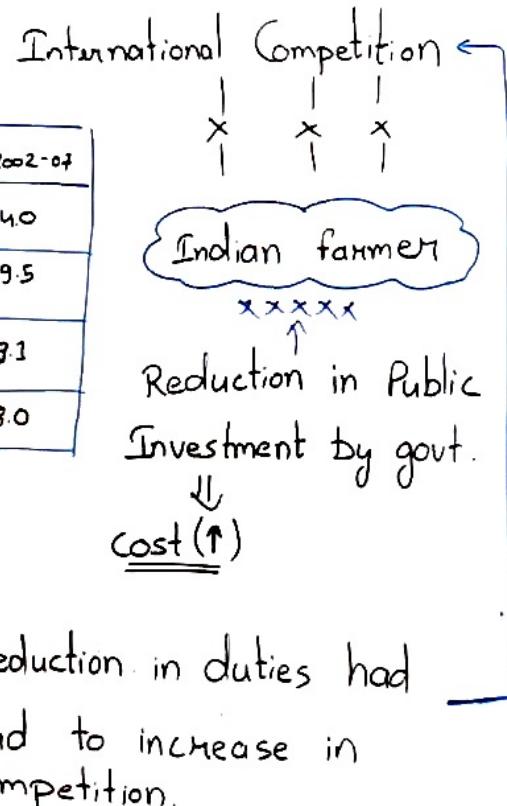
Matter of Concern??
why??

Sector	1980-91	1992-01	2002-07
Agriculture	3.6	3.3	4.0
Industries	7.1	6.5	9.5
Services	6.7	8.2	9.1
GDP	5.6	6.4	8.0

* Steps taken to improve the situation

→ Establishment of Indian Council of Agricultural Research [ICAR]

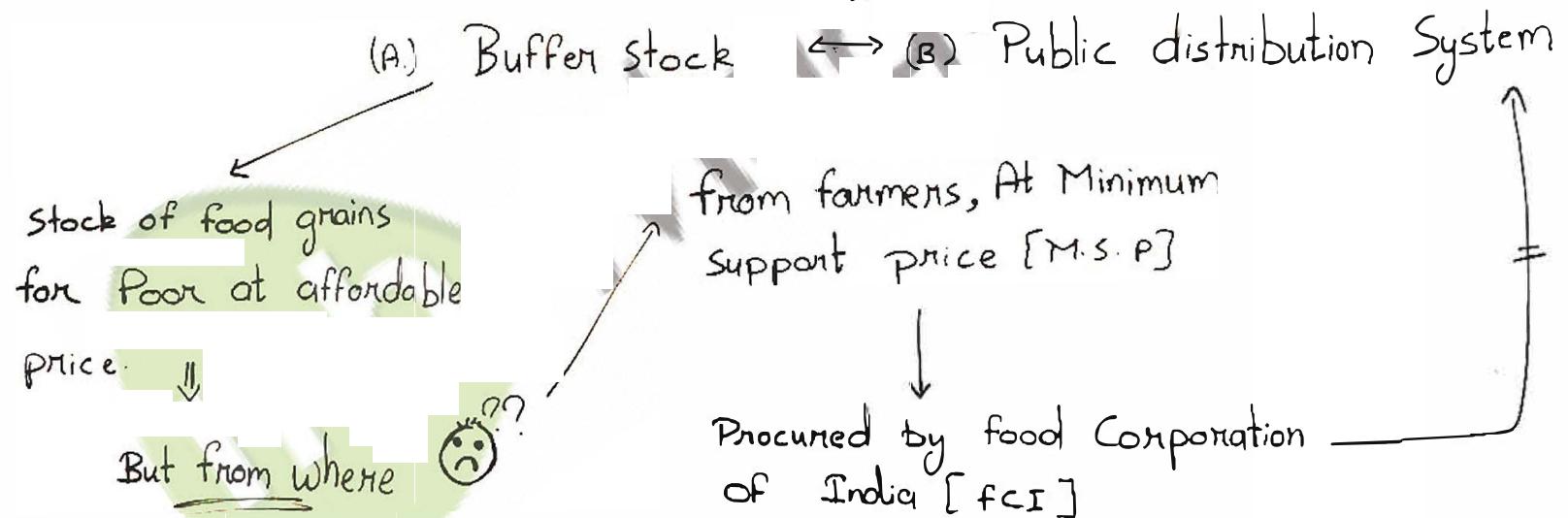
Agricultural university, veterinary Services and animal breeding Centers etc.



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Food Security - I

→ What ?? Why ?? Where ?? How ??



Lasso, N- Line, w.y. g- ut

Food Security

→ Problems Related to Food Security.

Imbalance in Inter.

M.S.P \Rightarrow Higher Cultivation of wheat and Rice \Rightarrow Distorting Cropping Pattern \Rightarrow Policies [Punjab & Haryana]

Subsidies \Rightarrow Excessive and Imprudent use \Rightarrow Water logging, Salinity and depletion of essential Micronutrients.

• Administrative difficulty with APL and BPL

• Shift in Cultivation

[food Crops \rightarrow fruits, vegetables
oil Seeds and
Industrial Crops.] \Rightarrow \downarrow Net Sown Area
[Cereal and Pulses]

Competition between
land use

Increasing population \uparrow \rightarrow \downarrow Net Sown area

!! food Security !!
= !! In Danger !!

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• Food Security - III

Inefficient water management



!! Water Scarcity !!



pumping ground water



water intensive Crops



free power supply to section of farmer.

fertiliser and Chemical



land Productivity



Impact on farmer

Small farmer v/s large farmer

→ will not sustain | → May sustain.

* Problem of Double Disadvantage

↑ Cost of Production
[HYV seeds, fertiliser]

→ High Production
Reaches Market



↓ fall in Price due
to High Supply



!! Distress Sale !!

∴ No food security
without the security of
the small farmers.

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• Food Security - IV

→ What can be done to overcome these challenges??

- Proper Agricultural Infrastructure
- Credit linkage
- Use of latest techniques
- Instead of wheat and Rice, food crops suitable to that geographical area must be encouraged.
- focus should be on Sustainable way to increasing foodgrain production
- free trade in grains.

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- Impact of Globalisation on Agriculture

→ Globalisation : Not a new phenomenon

↓
After 1990, Indian farmers faced new challenges.

- Competition in International

↑
x Indian farmers are not able to compete.

* Indian Agriculture is on Crossroads

(↑) Population (↓) Income (↓) Land Size

- Green revolution promised much

But Now it is under Controversies.

Highly Subsidised agriculture in developed countries [U.S.A and European Countries]

→ Other alternatives

- Gene revolution, organic farming
Diversification of Cropping pattern.

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Frequently asked Questions

- Types of farming? [specific]
- Cropping pattern / Cropping Season? Rabi, kharif and zaid [specific]
- Major Crop? [specific]
- Technological and Institutional reforms taken by Indian govt.? [Green Revolution]
- Bhoodan - Gramdan Movement?
- challenges to agriculture Sector? [farmers]
- food Security? How it is ensured? Problems/challenges to f.s? Double disadvantage?
- What steps can be taken to ensure food security?
- Impact of Globalisation on Agriculture? Alternative for Development of Ag?