Types of Agriculture

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Types of Agriculture

1. Nonagricultural, usually hunting and gathering
2. Shifting cultivation
3. Plantation agriculture
4. Peasant grain, root, and livestock farming
5. Paddy rice farming
6. Market gardening
7. Grain farming
8. Dairying
9. Nomadic herding
10. Livestock ranching
11. Livestock fattening
Hunting and Gathering

• The most ancient method of acquiring food
  – Small communities
  – Some depend solely on hunting, others rely on a few other sources
  – Rate of population growth is low
  – Nomadism
  – Economic situation is not very complex
Shifting Cultivation

Small patches of forest cleared by chopping vegetation or girdling trees

Girdling leads to drying of plants

Dried vegetation is burnt (Slash and Burn)

Crop variety planted in the clearing
Practices in shifting cultivation

• **Intertillage**
  – Taller, stronger plants shelter lower, fragile ones
  – Protection from harsh environmental conditions (heavy rainfall etc)

• Extensive tending not required until harvest

• Fertilizers not applied

• Same area cultivated for a period of 4-5 years until soil fertility is lost – **shift** to a new location

• New fields prepared – old fields are left uncultivated for long durations (10-20 years) – **land fallow period**

Plantation Agriculture

• Commercial agriculture system

• Tropical and sub-tropical areas

• Huge land-holding devoted to efficient, large-scale and specialised production of one type of tropical or sub-tropical crop market (coffee, tea, palm oil, tobacco)

• Mostly relies on hand labour

• Two-class societies – social and economic segregation

• Tensions frequently occur between labour and management

• Hired resident or non-resident labour
Peasant grain, root and livestock farming

In moderately drier parts of Middle East, Africa and Asia
- Mostly root crops, with some grains plus livestock ranching
- Wheat, barley, oats, millet and corn
- Mostly only planted enough for themselves and their families
- Cash crops also grown (well watered areas)
- Livestock raised and used in different ways
  - Milk, meat, wool, plowing, beasts of burden, fertilizers for fields
Paddy rice farming

- Mud-ditch, flooded rice fields – on terraced hillsides
- Drained and rebuilt each year
- Cash crops like tea, sugarcane, jute etc
- Double cropping (two crops in a single year)
- Large amount of organic fertilisers used
- Per-acre yields exceed those of other countries
- Took advantage of the Green Revolution
Market Gardening

• Small-scale home-based business (<1 acre)
• Production of fruits, vegetables and flowers
• Supplied directly to local consumers and retailers
• Manual labour- low requirement of market knowledge
• Variety of crops
• Low input and low output
Commercial Grain Farming

- Market oriented
- Mostly wheat -- Less frequently rice or corn
- 35% of the world's wheat → United States, Canada, Argentina, Kazakhstan, Russia, and Ukraine
- High reliance on technology
  - In commercial rice farming, grain is sown from airplanes
  - Moderate temperatures and adequate rainfall required
  - Increased use of fertilizers and pesticides (High input)
Dairying (Dairy Farming)

- Breeding, raising and utilization of dairy animals, mainly cows
  - Production of milk
  - Various other processed dairy product
- Separate breeds for dairy farming
- Artificial breeding used to obtain desired characteristics
- Pasture – natural feed for dairy cattle
- Special attention is required for feeding the animals
Milk Production Facts

• In the last three decades, world milk production has increased by more than 50 percent, from 482 million tonnes in 1982 to 754 million tonnes in 2012.
• India is the world’s largest milk producer, with 16 percent of global production, followed by the United States of America, China, Pakistan and Brazil.
• Since the 1970s, most of the expansion in milk production has been in South Asia, which is the main driver of milk production growth in the developing world.
• Milk production in Africa is growing more slowly than in other developing regions, because of poverty and – in some countries – adverse climatic conditions.
• The countries with the highest milk surpluses are New Zealand, the United States of America, Germany, France, Australia and Ireland.
• The countries with the highest milk deficits are China, Italy, the Russian Federation, Mexico, Algeria and Indonesia.
Nomadic Herding

• Found in Northwest Asia, the Middle East, North Africa and the Arctic Tundra
• Animal raised on pastures
• People move animals from place to place in search of available pastures
• **Characteristics:**
  – Subsistence
  – Travel
  – Sparse forage
  – Covers a large area of the world
  – Few products enter world trade
  – Poor quality livestock
  – Inadequate diets for livestock and people
Livestock Ranching

• Most popular in the US, Canada and Mexico
• Raising cattle, sheep and goats and horses in a Ranch (type of farm)
• Grazing livestock on large grazing lands
• Mainly used for meat or wool
• Small area for crop production and farming may also be present
• Major cause of deforestation and environmental degradation
Commercial Livestock Fattening

- Fattening of livestock to obtain high quality meat
- Mixed crop and livestock farming
- At least one-half of America’s harvested agricultural land is planted with feed crops for livestock
- Over 70 percent of America’s grain crop is used to feed livestock

Requirements of Livestock Industry

- Demand for animal products
- Feed
- Water
- Marketing/transportation system
- Enough space for livestock
Mediterranean Farming

– wheat and barley cultivation in the rainy season
– Drought-resistant vine and tree crops—grapes, olives, and figs
– Livestock herding—sheep and goats
– Rarely raise feed, collect animal manure, or keep draft animals
– Communal herds pastured on rocky mountain slopes
– No fertilizer used—grain fields lie fallow every other year
– Farmers can get all of life’s necessities
  • Wool and leather for clothing
  • Bread, beverages, fruit, milk, cheese, and meat