

SUBSISTENCE PLANTATION, AND MEDITERRANEAN AGRICULTURE UNIT-1

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STRUCTURE OF UNIT

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INTRODUCTION

Agriculture is a science, a business, and an art. Spatially, agriculture is the world's most widely distributed industry. It occupies more area than all other industries combined, changing the surface of the Earth more than any other. Farming, with its multiple methods, has significantly transformed the landscape (small or large fields, terraces, polders, livestock grazing), being an important reflection of the two-way relationship between people and their environments. The world's agricultural societies today are very diverse and complex, with agricultural practices ranging from the most rudimentary,

such as using the ox-pulled plow, to the most complex, such as using machines, tractors, satellite navigation, and genetic engineering methods. Customarily, scholars divide agricultural societies into categories such as subsistence, intermediate, and developed, words that express the same ideas as primitive, traditional, and modern, respectively. For the purpose of simplification, farming practices described in this chapter are classified into two categories, subsistence and commercial, with fundamental differences between their practice in developed and developing countries.

TYPE OF AGRICULTURE

Involving the breeding and herding of animals, pastoralism is another extensive form of subsistence agriculture. It is adapted to cold and/or dry climates of savanna (grasslands), deserts, steppes, high plateaus, and Arctic zones where planting crops is impracticable. Specifically, the practice is characteristic in Africa [north, central (Sahel) and south], the Middle East, central and southwest Asia, the Mediterranean basin, and Scandinavia. The species of animals vary with the region of the world including especially sheep, goats, cattle, reindeer, and camels. Pastoralism is a successful strategy to support a population on less productive land, and adapts well to the environment.

Nomadic pastoralism is a traditional form of subsistence agriculture in which the pastoralists travel with their herds over long distances and with no fixed pattern. This is a continuous movement of groups of herds and people such as the Bedouins of Saudi Arabia, the Bakhtiari of Iran, the Berbers of North Africa, the Maasai of East Africa, the Zulus of South Africa, the Mongols of Central Asia, and other groups. The settlement landscape of pastoral nomads reflects their need for mobility and flexibility. Usually, they live in a type of tent (known as *yurt* in Central Asia) and move their herds to any available pasture.

SUBSISTENCE AGRICULTURE

Subsistence agriculture replaced hunting and gathering in many parts of the globe. The term subsistence, when it relates to farming, refers to growing food only to sustain the farmers themselves and their families, consuming most of what they produce, without entering into the cash economy of the country. The farm size is small, 2-5 acres (1-2 hectares), but the agriculture is less mechanized; therefore, the percentage of workers engaged directly in farming is very high, reaching 50 per cent or more in some developing countries. Climate regions play an important role in determining agricultural regions. Farming activities range from shifting cultivation to pastoralism, both extensive forms that still prevail over large regions, to intensive subsistence.

SHIFTING AGRICULTURE

Shifting cultivation, also known as slash-and-burn agriculture, is a form of subsistence agriculture that involves a kind of natural rotation system. Shifting cultivation is a way of life for 150-200 million people, globally distributed in the tropical areas, especially in the rain forests of South America, Central and West Africa, and Southeast Asia. The practices involve removing dense vegetation, burning the debris, clearing the area, known as Sweden, and preparing it for cultivation. Shifting cultivation can successfully support only low population densities and, as a result of rapid depletion of soil fertility, the fields are actively cultivated usually for three years. As a result,

the infertile land has to be abandoned and another site has to be identified, starting again the process of clearing and planting.

The slash-and-burn technique thus requires extensive acreage for new lots, as well as a great deal of human labour, involving at the same time a frequent gender division of labour. The kinds of crops grown can be different from region to region, dominated by tubers, sweet potatoes especially, and grains such as rice and corn. The practice of mixing different seeds in the same Sweden in the warm and humid tropics is favourable for harvesting two or even three times per year. Yet,

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INTENSIVE SUBSISTENCE AGRICULTURE

Intensive subsistence agriculture, characteristic of densely populated regions especially in southern, south-eastern, and eastern Asia, involves the effective and efficient use of small parcels of land in order to maximize crop yield per acre. The practice requires intensive human labour, with most of the work being done by hand and/or with animals. The landscape of intensive subsistence agriculture is significantly transformed, including hillside terraces and raised fields, adding the irrigation systems and fertilizers.

As a result, intensive subsistence agriculture is able to support large rural populations. Rice is the dominant crop in the humid areas of southern, south-eastern, and eastern Asia. In the drier areas, other crops are cultivated such as grains (wheat, corn, barley, millet, sorghum, and oats), as well as peanuts, soybeans, tubers, and vegetables. In both situations, the land is intensively used, and the milder climate of those regions allows double cropping (the fields are planted and harvested two times per year).

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MEDITERRANEAN AGRICULTURE

The term 'Mediterranean agriculture' applies to the agriculture done in those regions which have a Mediterranean type of climate, hot and dry summers and moist and mild winters. Five major regions in the world have a Mediterranean type of agriculture, such as the lands that border the Mediterranean Sea (South Europe, North Africa, and the Middle East), California, central Chile, South Africa's Cape, and in parts of south-western and southern Australia. Farming is intensive, highly specialized and varied in the kinds of crops raised. The hilly Mediterranean lands, also known as 'orchard lands of the world,' are dominated by citrus fruits (oranges, lemons, and grapefruits),

olives (primary for cooking oil), figs, dates, and grapes (primarily for wine), which are mainly for export.

These and other commodities flow to distant markets, Mediterranean products tending to be popular and commanding high prices. Yet, the warm and sunny Mediterranean climate also allows a wide range of other food crops, such as cereals (wheat, especially) and vegetables, cultivated especially for domestic consumption.

Mixed crop farming extends over much of the eastern United States, central and western Europe, western Russia, Japan, and smaller areas in South America (Brazil and Uruguay) and South Africa. The rich soils, typically involving crop rotation, produce high yields primarily of corn and wheat, adding also soybeans, sugar beets, sunflower, potatoes, fruit orchards, and forage crops for livestock. In practice, there is a wide variation in mixed systems. At a higher level, a region can consist of individual specialized farms (corn, for example) and service systems that together act as a mixed system. Other forms of mixed farming include cultivation of different crops on the same field or several varieties of the same crop with different life cycles, using space more efficiently and spreading risks more uniformly.

PLANTATION AGRICULTURE

Plantations are large landholdings in developing regions designed to produce crops for export. Usually, they specialize in the production of one particular crop for market laid out to produce coffee, cocoa, bananas, or sugar in South and Central America; cocoa, tea, rice, or rubber in West and East Africa; tea in South Asia; rubber in Southeast Asia, and/or other specialized and luxury crops such as palm oil, peanuts, cotton, and tobacco. Plantations are located in the tropical and subtropical regions of Asia, Africa, and Latin America and, although they are located in the developing countries, many are owned and operated by European or North American individuals or corporations.

Even those taken by governments of the newly independent countries continued to be operated by foreigners in order to receive income from foreign sources. These plantations survived during decolonization, continuing to serve the rich markets of the world. Unlike coffee, sugar, rice, cotton and other traditional crops, exported from large plantations, other crops can be required by the international market such as flowers and specific fruits and vegetables.

These represent the non-traditional agricultural exports, which have become increasingly important in some countries or regions such as Argentina, Colombia, Chile, Mexico, and Central America, to mention a few. One important reason for sustaining non-traditional exports is that they complement the traditional exports, generating foreign exchange and employment. Thus, plantation agriculture, designed to produce crops for export, is critical to the economies of many developing countries.

CONCLUSION

Agriculture was the key development in the rise of sedentary human civilization, domesticating species of plants and animals and creating food surpluses that natural the development of civilization. It began independently in different parts of the globe, both the Old and New world. Throughout history, agriculture played a dynamic role in expanding food supplies, creating employment, and providing a rapidly growing market for industrial products. Although subsistence, self sufficient agriculture has largely disappeared in Europe and North America, it continues today in large part of rural Africa, and part of Asia and Latin America. While traditional forms of agriculture practices continue to exist, they are overshadowed by the global industrialization of agriculture,

Which has accelerated in the last few decades. Yet commercial agriculture differs significantly from subsistence agriculture, as the main objective of commercial agriculture is achieving higher profit.

Farmers in both the core and the periphery have had to adjust to many changes that occurred at all levels, from the local to the global. Although states have become important players in the regulation and support of agriculture, at the global level, the world trade organization (WTO) has significant implication in agriculture.

Social reactions to genetically engineered foods have repercussion throughout the world food system. Currently, the focus is especially on the option that a balanced, safe, and sustainable approach can be the solution not only to achieve sustainable intensification of crop productivity but also to protect the environment. Therefore, agriculture has become a highly complex, globally integrated system, and achieving the transformation to sustainable agriculture is a major challenge.

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