Ch.13 Glossary

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| **agroforestry** | Planting trees and crops together. |
| **alley cropping** | Planting of crops in strips with rows of trees or shrubs on each side. |
| **animal manure** | Dung and urine of animals used as a form of organic fertilizer. Compare green manure. |
| **aquaculture** | Growing and harvesting of fish and shellfish for human use in freshwater ponds, irrigation ditches, and lakes, or in cages or fenced-in areas of coastal lagoons and estuaries. See fish farming, fish ranching. |
| **chronic undernutrition** | An ongoing condition suffered by people who cannot grow or buy enough food to meet their basic energy need. Compare malnutrition, overnutrition. |
| **commercial inorganic fertilizer** | Commercially prepared mixture of plant nutrients such as nitrates, phosphates, and potassium applied to the soil to restore fertility and increase crop yields. Compare organic fertilizer. |
| **compost** | Partially decomposed organic plant and animal matter used as a soil conditioner or fertilizer. |
| **conservation-tillage farming** | Crop cultivation in which the soil is disturbed little (minimum-tillage farming) or not at all (no-till farming) to reduce soil erosion, lower labor costs, and save energy. Compare conventional-tillage farming. |
| **contour farming** | Plowing and planting across the changing slope of land, rather than in straight lines, to help retain water and reduce soil erosion. |
| **conventional-tillage farming** | Crop cultivation method in which a planting surface is made by plowing land, breaking up the exposed soil, and then smoothing the surface. Compare conservation-tillage farming. |
| **crop rotation** | Planting a field, or an area of a field, with different crops from year to year to reduce soil nutrient depletion. A plant such as corn, tobacco, or cotton, which removes large amounts of nitrogen from the soil, is planted one year. The next year a legume such as soybeans, which adds nitrogen to the soil, is planted. |
| **desertification** | Conversion of rangeland, rain-fed cropland, or irrigated cropland to desertlike land, with a drop in agricultural productivity of 10% or more. It usually is caused by a combination of overgrazing, soil erosion, prolonged drought, and climate change. |
| **famine** | Widespread malnutrition and starvation in a particular area because of a shortage of food, usually caused by drought, war, flood, earthquake, or other catastrophic events that disrupt food production and distribution. |
| **feedlot** | Confined outdoor or indoor space used to raise hundreds to thousands of domesticated livestock. Compare rangeland. |
| **fertilizer** | Substance that adds inorganic or organic plant nutrients to soil and improves its ability to grow crops, trees, or other vegetation. See commercial inorganic fertilizer, organic fertilizer. |
| **fish farming** | Form of aquaculture in which fish are cultivated in a controlled pond or other environment and harvested when they reach the desired size. See also fish ranching. |
| **fish ranching** | Form of aquaculture in which members of a fish species such as salmon are held in captivity for the first few years of their lives, released, and then harvested as adults when they return from the ocean to their freshwater birthplace to spawn. See also fish farming. |
| **fishery** | Concentrations of particular aquatic species suitable for commercial harvesting in a given ocean area or inland body of water. |
| **food security** | Every person in a given area has daily access to enough nutritious food to have an active and healthy life. |
| **fungicide** | Chemical that kills fungi. |
| **green manure** | Freshly cut or still-growing green vegetation that is plowed into the soil to increase the organic matter and humus available to support crop growth. Compare animal manure. |
| **green revolution** | Popular term for introduction of scientifically bred or selected varieties of grain (rice, wheat, maize) that, with high enough inputs of fertilizer and water, can greatly increase crop yields. |
| **gully erosion** | Occurs when rivulets of fast-flowing water join together to cut wider and deeper ditches or gullies. |
| **herbicide** | Chemical that kills a plant or inhibits its growth. |
| **high-input agriculture** | See industrialized agriculture. |
| **hunger** | Suffered when people cannot grow or buy enough food to meet their basic energy needs. |
| **industrialized agriculture** | Using large inputs of energy from fossil fuels (especially oil and natural gas), water, fertilizer, and pesticides to produce large quantities of crops and livestock for domestic and foreign sale. Compare subsistence farming. |
| **inorganic fertilizer** | See commercial inorganic fertilizer. |
| **insecticide** | Chemical that kills insects. |
| **integrated pest management (IPM)** | Combined use of biological, chemical, and cultivation methods in proper sequence and timing to keep the size of a pest population below the size that causes economically unacceptable loss of a crop or livestock animal. |
| **intercropping** | Growing two or more different crops at the same time on a plot. For example, a carbohydrate-rich grain that depletes soil nitrogen and a protein-rich legume that adds nitrogen to the soil may be intercropped. Compare monoculture, polyculture, polyvarietal cultivation. |
| **interplanting** | Simultaneously growing a variety of crops on the same plot. See agroforestry, intercropping, polyculture, polyvarietal cultivation. |
| **land degradation** | Occurs when natural or human-induced processes decrease the future ability of land to support crops, livestock, or wild species. |
| **low-input agriculture** | See sustainable agriculture. |
| **malnutrition** | Faulty nutrition, caused by a diet that does not supply an individual with enough protein, essential fats, vitamins, minerals, and other nutrients needed for good health. Compare overnutrition, undernutrition. |
| **manure** | See animal manure, green manure. |
| **metabolism** | Ability of a living cell or organism to capture and transform matter and energy from its environment to supply its needs for survival, growth, and reproduction. |
| **micronutrients** | Chemical elements that organisms need in small or even trace amounts to live, grow, or reproduce. Examples are sodium, zinc, copper, chlorine, and iodine. Compare macronutrients. |
| **minimum-tillage farming** | See conservation-tillage farming. |
| **monoculture** | Cultivation of a single crop, usually on a large area of land. Compare polyculture, polyvarietal cultivation. |
| **no-till farming** | See conservation-tillage farming. |
| **organic farming** | Producing crops and livestock naturally by using organic fertilizer (manure, legumes, compost) and natural pest control (bugs that eat harmful bugs, plants that repel bugs, and environmental controls such as crop rotation) instead of using commercial inorganic fertilizers and synthetic pesticides and herbicides. See sustainable agriculture. |
| **organic fertilizer** | Organic material such as animal manure, green manure, and compost, applied to cropland as a source of plant nutrients. Compare commercial inorganic fertilizer. |
| **overnutrition** | Diet so high in calories, saturated (animal) fats, salt, sugar, and processed foods and so low in vegetables and fruits that the consumer runs high risks of diabetes, hypertension, heart disease, and other health hazards. Compare malnutrition, undernutrition. |
| **pest** | Unwanted organism that directly or indirectly interferes with human activities. |
| **pesticide** | Any chemical designed to kill or inhibit the growth of an organism that people consider undesirable. See fungicide, herbicide, insecticide. |
| **plantation agriculture** | Growing specialized crops such as bananas, coffee, and cacao in tropical developing countries, primarily for sale to developed countries. |
| **polyculture** | Complex form of intercropping in which a large number of different plants maturing at different times are planted together. See also intercropping. Compare monoculture, polyvarietal cultivation. |
| **polyvarietal cultivation** | Planting a plot of land with several varieties of the same crop. Compare intercropping, monoculture, polyculture. |
| **salinization** | Accumulation of salts in soil that can eventually make the soil unable to support plant growth. |
| **sheet erosion** | Occurs when surface water or wind peel off fairly thin sheets or layers of soil. |
| **shelterbelt** | See windbreak. |
| **shifting cultivation** | Clearing a plot of ground in a forest, especially in tropical areas, and planting crops on it for a few years (typically 2[[endash]]5 years) until the soil is depleted of nutrients or the plot has been invaded by a dense growth of vegetation from the surrounding forest. Then a new plot is cleared and the process is repeated. The abandoned plot cannot successfully grow crops for 10[[endash]]30 years. See also slash-and-burn cultivation. |
| **slash-and-burn cultivation** | Cutting down trees and other vegetation in a patch of forest, leaving the cut vegetation on the ground to dry, and then burning it. The ashes that are left add nutrients to the nutrient-poor soils found in most tropical forest areas. Crops are planted between tree stumps. Plots must be abandoned after a few years (typically 2[[endash]]5 years) because of loss of soil fertility or invasion of vegetation from the surrounding forest. See also shifting cultivation. |
| **soil conservation** | Methods used to reduce soil erosion, prevent depletion of soil nutrients, and restore nutrients already lost by erosion, leaching, and excessive crop harvesting. |
| **soil erosion** | Movement of soil components, especially topsoil, from one place to another, usually by wind, flowing water, or both. This natural process can be greatly accelerated by human activities that remove vegetation from soil. |
| **strip cropping** | Planting regular crops and close-growing plants, such as hay or nitrogen-fixing legumes, in alternating rows or bands to help reduce depletion of soil nutrients. |
| **subsistence farming** | Supplementing solar energy with energy from human labor and draft animals to produce enough food to feed oneself and family members; in good years enough food may be left over to sell or put aside for hard times. Compare industrialized agriculture. |
| **sustainable agriculture** | Method of growing crops and raising livestock based on organic fertilizers, soil conservation, water conservation, biological pest control, and minimal use of nonrenewable fossil-fuel energy. |
| **terracing** | Planting crops on a long, steep slope that has been converted into a series of broad, nearly level terraces with short vertical drops from one to another that run along the contour of the land to retain water and reduce soil erosion. |
| **traditional intensive agriculture** | Producing enough food for a farm family's survival and perhaps a surplus that can be sold. This type of agriculture uses higher inputs of labor, fertilizer, and water than traditional subsistence agriculture. See traditional subsistence agriculture. Compare industrialized agriculture. |
| **traditional subsistence agriculture** | Production of enough crops or livestock for a farm family's survival and, in good years, a surplus to sell or put aside for hard times. Compare industrialized agriculture, traditional intensive agriculture. |
| **undernutrition** | Consuming insufficient food to meet one's minimum daily energy needs for a long enough time to cause harmful effects. Compare malnutrition, overnutrition. |
| **waterlogging** | Saturation of soil with irrigation water or excessive precipitation so that the water table rises close to the surface. |
| **windbreak** | Row of trees or hedges planted to partially block wind flow and reduce soil erosion on cultivated land. |

