Uganda Institute of Information and Communication Technology

**Food** is any substance consumed to provide [nutritional](https://en.wikipedia.org/wiki/Nutrient) support for an [organism](https://en.wikipedia.org/wiki/Organism). Food is usually of [plant](https://en.wikipedia.org/wiki/Plant), [animal](https://en.wikipedia.org/wiki/Animal), or [fungal](https://en.wikipedia.org/wiki/Fungus) origin, and contains essential [nutrients](https://en.wikipedia.org/wiki/Nutrient), such as [carbohydrates](https://en.wikipedia.org/wiki/Carbohydrate), [fats](https://en.wikipedia.org/wiki/Fat), [proteins](https://en.wikipedia.org/wiki/Protein_(nutrient)), [vitamins](https://en.wikipedia.org/wiki/Vitamin), or [minerals](https://en.wikipedia.org/wiki/Mineral_(nutrient)). The substance is [ingested](https://en.wikipedia.org/wiki/Ingestion) by an [organism](https://en.wikipedia.org/wiki/Organism) and assimilated by the organism's [cells](https://en.wikipedia.org/wiki/Cell_(biology)) to provide [energy](https://en.wikipedia.org/wiki/Energy), maintain life, or stimulate growth. Different species of animals have different [feeding behaviours](https://en.wikipedia.org/wiki/List_of_feeding_behaviours) that satisfy the needs of their unique [metabolisms](https://en.wikipedia.org/wiki/Metabolism), often evolved to fill a specific [ecological niche](https://en.wikipedia.org/wiki/Ecological_niche) within specific geographical contexts.

[Omnivorous](https://en.wikipedia.org/wiki/Omnivore) humans are highly adaptable and have adapted to obtain food in many different ecosystems. Historically, [humans](https://en.wikipedia.org/wiki/Human) secured food through two main methods: [hunting and gathering](https://en.wikipedia.org/wiki/Hunter-gatherer) and [agriculture](https://en.wikipedia.org/wiki/Agriculture). As agricultural technologies increased, humans settled into [agriculture lifestyles](https://en.wikipedia.org/wiki/Agrarian_society) with diets shaped by the agriculture opportunities in their geography. Geographic and cultural differences has led to creation of numerous [cuisines](https://en.wikipedia.org/wiki/Cuisine) and [culinary arts](https://en.wikipedia.org/wiki/Culinary_arts), including a wide array of [ingredients](https://en.wikipedia.org/wiki/Ingredient), [herbs](https://en.wikipedia.org/wiki/Culinary_herb), [spices](https://en.wikipedia.org/wiki/Spice), [techniques](https://en.wikipedia.org/wiki/List_of_cooking_techniques), and [dishes](https://en.wikipedia.org/wiki/Dish_(food)). As cultures have mixed through forces like [international trade](https://en.wikipedia.org/wiki/International_trade) and [globalization](https://en.wikipedia.org/wiki/Globalization), ingredients have become more widely available beyond their geographic and cultural origins, creating a cosmopolitan exchange of different food traditions and practices.

Today, the majority of the [food energy](https://en.wikipedia.org/wiki/Food_energy) required by the ever-[increasing](https://en.wikipedia.org/wiki/Population_growth) [population of the world](https://en.wikipedia.org/wiki/World_population) is supplied by the industrial [food industry](https://en.wikipedia.org/wiki/Food_industry), which produces food with [intensive agriculture](https://en.wikipedia.org/wiki/Intensive_farming) and distributes it through complex [food processing](https://en.wikipedia.org/wiki/Food_processing) and [food distribution](https://en.wikipedia.org/wiki/Food_distribution) systems. This system of conventional agriculture relies heavily on [fossil fuels](https://en.wikipedia.org/wiki/Fossil_fuel), which means that the food and agricultural system is one of the [major contributors to climate change](https://en.wikipedia.org/wiki/Greenhouse_gas_emissions_from_agriculture), accountable for as much as 37% of total [greenhouse gas emissions](https://en.wikipedia.org/wiki/Greenhouse-gas_emissions).[[1]](https://en.wikipedia.org/wiki/Food#cite_note-1) Addressing the [carbon intensity](https://en.wikipedia.org/wiki/Emission_intensity) of the [food system](https://en.wikipedia.org/wiki/Food_system) and [food waste](https://en.wikipedia.org/wiki/Food_waste) are [important mitigation measures](https://en.wikipedia.org/wiki/Climate_change_mitigation) in the global response to climate change.