



Notion of the ecosystem and ecosystems types

1. Natural

2. Terrestrial

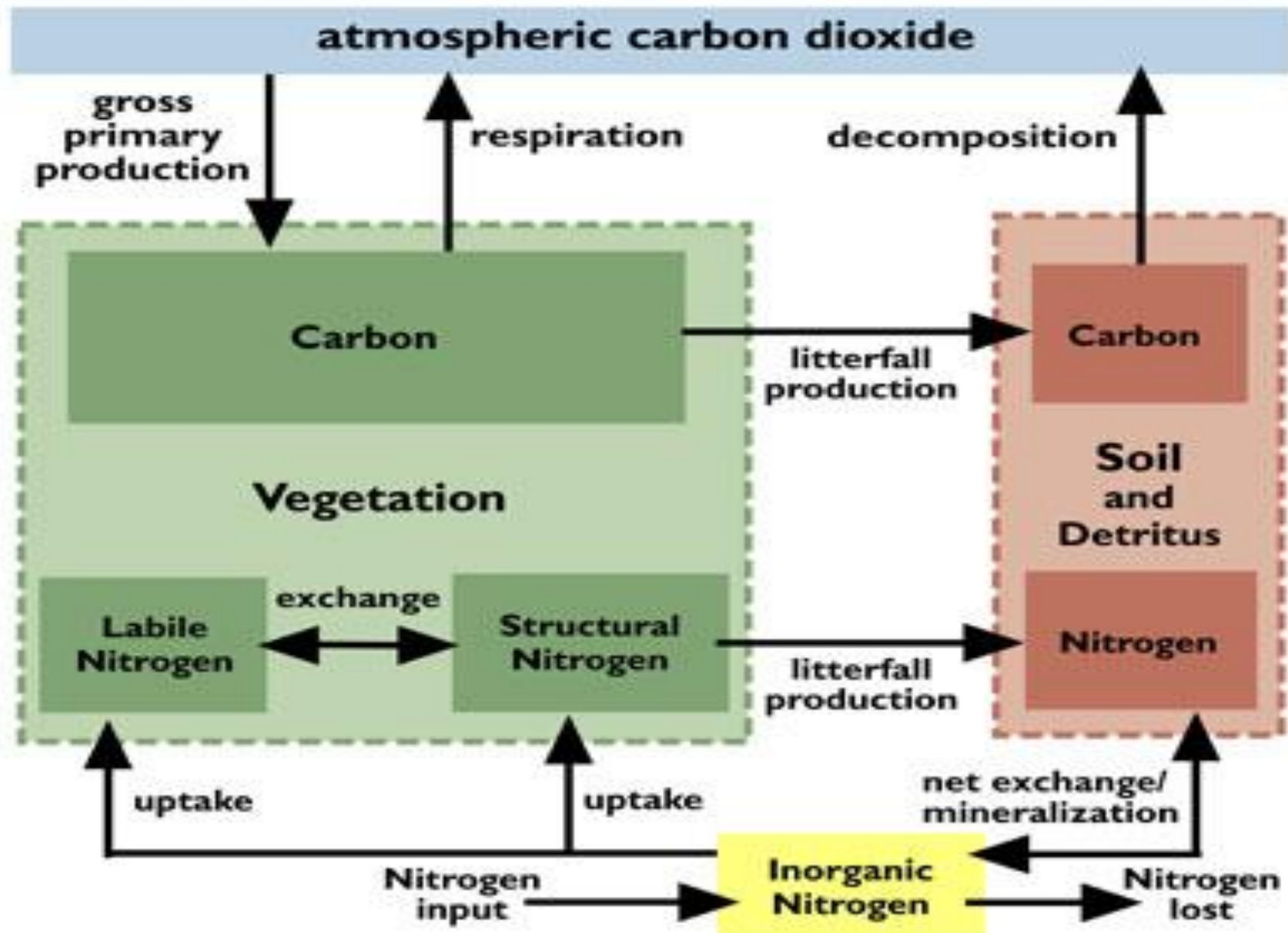
3. Aquatic

4. Marine

5. Freshwater

6. Artificial

Terrestrial ecosystem - A community of organisms and their environment that occurs on the land masses of continents and islands occupying 55,660,000 mi² (144,150,000 km²), or 28.2%, of Earth's surface.



Terrestrial Ecosystem Model (TEM)

The Ecosystems Center, Marine Biological Laboratory (Woods Hole, Massachusetts)

Aquatic ecosystem - An aquatic ecosystem is an ecosystem located in a body of water. Communities of organisms that are dependent on each other and on their environment live in aquatic ecosystems. The two main types of aquatic ecosystems are marine ecosystems and freshwater ecosystems.

Marine - are among the largest of Earth's aquatic ecosystems. They include oceans, salt marsh and intertidal ecology, estuaries and lagoons, mangroves and coral reefs, the deep sea and the sea floor covering two-thirds of the surface of the Earth. They are considered ecosystems because the plant life supports the animal life and vice-versa.

Marine ecosystem



Freshwater ecosystems - include lakes and ponds, rivers, streams and springs, and wetlands. Freshwater habitats can be classified by different factors, including temperature, light penetration, and vegetation. Classified:

- **Lentic**: slow-moving water, including pools, ponds, and lakes.
- **Lotic**: rapidly-moving water, for example streams and rivers.
- **Wetlands**: areas where the soil is saturated or inundated for at least part of the time.

Freshwater ecosystem



Lentic



Lotic



Wetland



Agroecosystem - arbitrarily defined as a spatially and functionally coherent unit of agricultural activity, and includes the living and nonliving components involved in that unit as well as their interactions.



Chaparral



Coral Reef



Desert



A photograph of a dense rainforest. The scene is filled with tall, slender tree trunks and a thick canopy of green leaves. In the foreground, several large, feathery fern fronds are visible, adding to the lush appearance of the forest. The lighting is soft and diffused, typical of a deep forest environment.

Rainforest

Human Ecosystem



Prairie



Riparian zone



Tundra



Urban



Biomes

- Terrestrial
- Freshwater
- Marine

Several physiognomic-ecological classification systems are available:

- Physiognomic-Ecological Classification of Plant Formations of the Earth: a system based on the 1974 work of Mueller-Dombois and Heinz Ellenberg, and developed by UNESCO.
- Land Cover Classification System (LCCS), developed by the Food and Agriculture Organization (FAO).
- Forest-Range Environmental Study Ecosystems (FRES) developed by the United States Forest Service for use in the United States.

Ecosystem services

- regulating (climate, floods, nutrient balance, water filtration)
- provisioning (food, medicine, fur)
- cultural (science, spiritual, ceremonial, recreation, aesthetic)
- supporting (nutrient cycling, photosynthesis, soil formation).

Thank you for attention