

UNIT- 3

ECOSYSTEM

LECTURE-1

Ecosystem

An *ecosystem* is a natural unit consisting of all plants, animals, and micro-organisms in an area functioning together with all the non-living physical factors of the environment.

According to British ecologist Arthur Tansley (1935), an ecosystem is a system that arises from the integration of all living and non-living factors of the environment.

An ecosystem is a self-sustained community of plants and animals existing in its own environment. The term ecosystem may be defined as a system resulting from the integration of all the living and non living factors of the environment. Desert, Forest, Ocean, Grasslands, Mountains, etc. are all ecosystems.

What is an ecosystem?

Ecosystem is a system of living things that interact with each other and with the physical world.

However.....

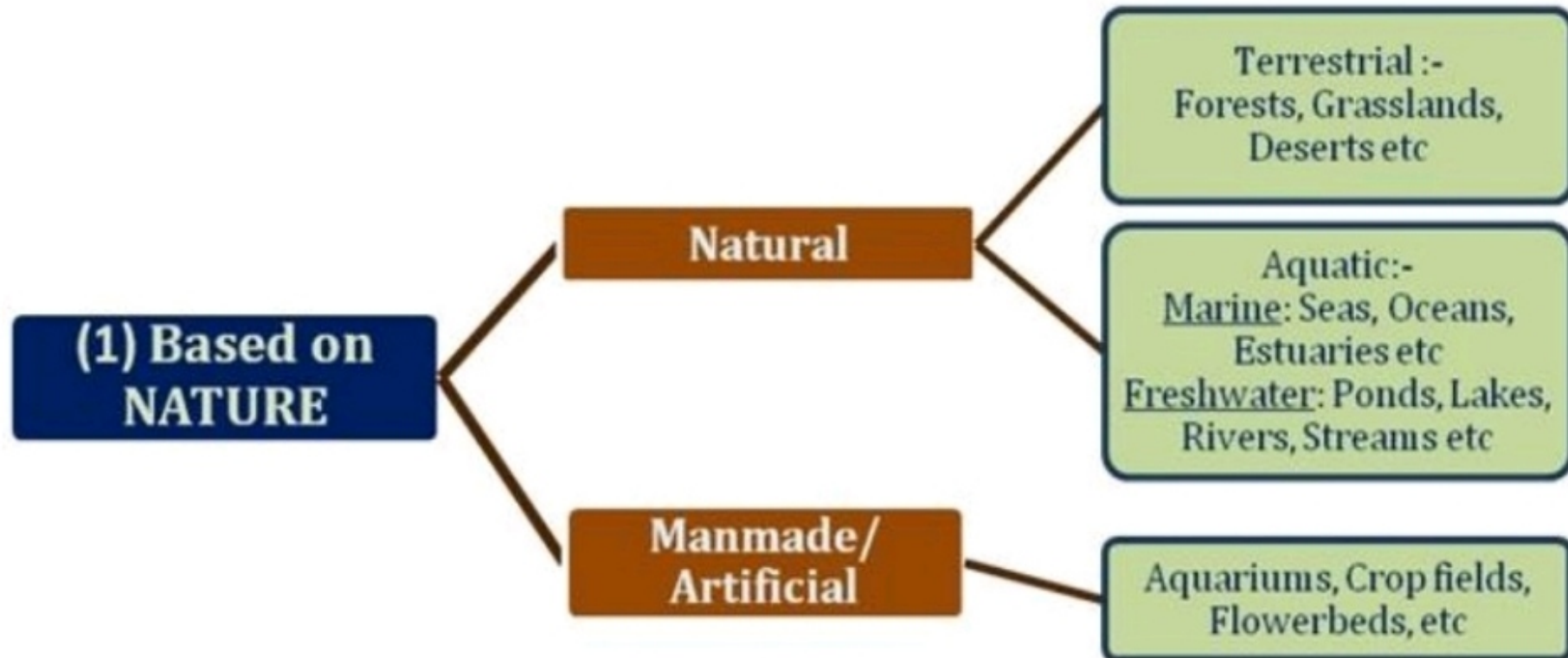


- An ecosystem can be as large as the Sahara Desert, or as small as a puddle!!!
- Ecosystems are more than just the organisms they contain.
- Geography, weather, climate and geologic factors also influence the interactions within an ecosystem.

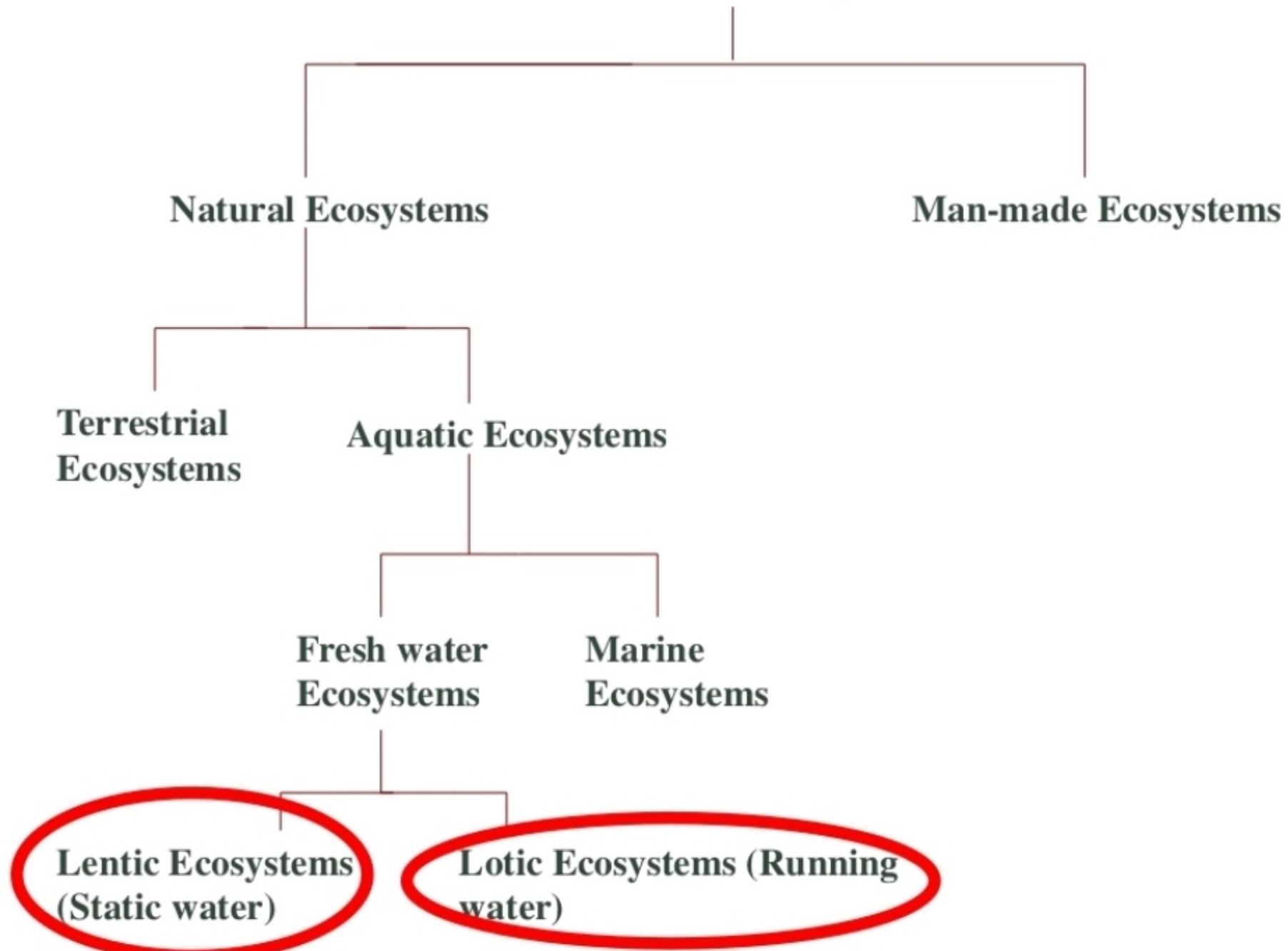


A **puddle** is a small accumulation of liquid, usually water, on a surface

Classification of Ecosystem



Kinds of Ecosystems



Natural Ecosystems

Ecosystems which are the gifts of nature are called natural ecosystems. Deserts, forests, oceans, grasslands, etc. are natural ecosystems .



Man-made Ecosystems

Ecosystems which are engineered by man are called Man Made or artificial ecosystems. Examples : Gardens, Man made lakes, agricultural fields, etc.



Natural Vs Artificial Ecosystems

Natural Ecosystem

- (i) Plants of one species are often scattered
- (ii) Natural ecosystems usually have alternate sources of food available if one fails.
- (iii) Natural ecosystem is developed under natural conditions.
- (iv) In a natural ecosystem the inorganic nutrients are returned to the soil from which they were taken.
- (v) Natural ecosystems have no distinct boundaries.

Artificial Ecosystem

- (i) Plants of the small species grow in close proximity
- (ii) Artificial ecosystems usually contain less food choices.
- (iii) Artificial ecosystem is created and manipulated by human activities.
- (iv) In artificial ecosystems, the inorganic nutrients do not return to the soil but are carried away at some other places.
- (v) Artificial ecosystems have distinct boundaries.

Structure of an Ecosystem

