

SUSTAINABLE LAND MANAGEMENT



Sustainable land management facts

One out of every three people on earth is in some way affected by land degradation. Latest estimates indicate that nearly 2 billion hectares of land worldwide – an area twice the size of China – are already seriously degraded, some irreversibly. This includes large areas of cropland, grassland, woodland and forest areas whose degradation reduces productivity, disrupts vital ecosystem functions, negatively affects biodiversity and water resources, and increases their vulnerability to climate change.

belief: *credenza*
 housing: *abitazione*
 income: *reddito*
 Land Trusts: *organizzazioni per la salvaguardia dell'ambiente e del territorio*

Sustainable Land Management can be defined as “*the use of land resources, including soils, water, animals and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive functions*”.

UN Earth Summit 1992

Finding ways for people to live sustainably on Earth is becoming more crucial every year. With the world population estimated to reach 9 billion by 2050, there will be even more pressure on **natural resources** to provide food, energy, transportation and **housing** for a growing, hungry world. In addition to **health** and **food benefits**, conserving land increases property values near **green areas** and saves tax money by encouraging more **efficient development**. Several studies have demonstrated the great economic benefits of sustainable land conservation. Protecting land is more than just preserving picturesque landscapes. Land resources are used for a variety of purposes which may include **organic agriculture**, **reforestation**, **water resource management** and **eco-tourism projects**.

In many countries, such as the UK or the USA, national or local **Land Trusts** help people to respect and save the territory and community resources that come from the land, water, food security, **wildlife** and places for recreation.

Therefore to reach these goals we need to understand:

- the natural characteristics of ecosystems taking into consideration climate, soils, water, plants and animals;
- the socio-economic and cultural characteristics of people who live in a specific territory: family composition, cultural **beliefs**, **income**, education levels;
- the **environmental functions** provided by healthy ecosystems, maintenance of soil fertility, micro-climate improvement, bio-diversity preservation.

Sustainable Land Management is decisive in minimizing land degradation, rehabilitating degraded areas and ensuring the best use of land resources for the benefit of present and future generations.



Rice terraces in the Philippines



Water resources management: the Yacyretá Dam in Argentina

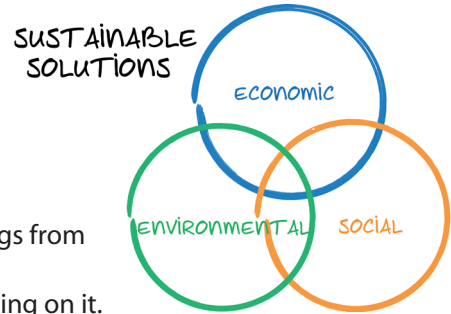
1  **Decide if these sentences are true or false and correct the false ones.**


1. In the next decades the pressure on natural resources will become more important.
2. By the first half of this century, the world population will probably reach nine billion.
3. There are no direct connections between land conservation and economic benefits.
4. Land resources have limited purposes.
5. In many countries Land Trusts help people to respect and save the territory where they live.
6. Beside the natural characteristics of a place, we should take into consideration also the socio-economic and cultural ones.

T	F
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2  **Match the words with the correct meaning.**

- | | | |
|-------------------|--------------------------|--|
| 1. transportation | <input type="checkbox"/> | a. Increasing, expanding. |
| 2. growing | <input type="checkbox"/> | b. Advantage. |
| 3. property | <input type="checkbox"/> | c. Visually charming. |
| 4. benefit | <input type="checkbox"/> | d. Something people do to relax. |
| 5. picturesque | <input type="checkbox"/> | e. The act of moving people or things from one place to another. |
| 6. recreation | <input type="checkbox"/> | f. A piece of land often with a building on it. |



3  **Listen to the geologist William Gomez, talking about the activities and the aims of the American Environmental Protection Agency (EPA) at Seattle 2016 Environment Conference, and complete the statements below.**

1. The most important task of the EPA is and to safeguard
2. The EPA involves people in headquarters program offices, regional offices, labs across the country.
3. People who work for the EPA are
4. The EPA works closely with
5. The EPA is responsible for researching and setting
6. Sanctions can be issued where are not met.
7. There is a collaboration between the EPA and in a wide variety of and energy
8. In July 1970, the that established the EPA was passed in response to the growing public demand for

4  **Environmental Engineering. Read the text and choose the right option.**

Would you like to get a job in the environmental field? You could choose to enrol in one of the Italian Universities that offers courses in Environmental Engineering.

Environmental Engineering is the **branch/brunch** of engineering focused on the application of scientific and engineering **principles/princes** for protection of people from the **effects/causes** of adverse environmental factors, protection of local and global environments **by/from** the potentially harmful effects of natural and human activities and improvement of environmental **quantity/quality**. Environmental engineering programs are designed to **give/take** students the knowledge, skills, and tools to prepare them **for/to** a wide range **off/of** careers in the public and private sector. There may be motivating careers in areas such **so/as** soil, water and air management, civil engineering, public **policy/police**, construction and structural engineering, and **transport/transportation**. Environmental engineering courses offer a number of specializations to satisfy your intellectual interests and career **goals/gaols**.