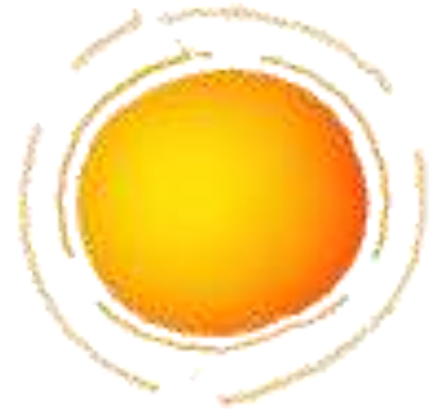


INTRODUCTION TO BUILDING SUSTAINABILITY





BUILDING

It is used by people with different purposes:

- Residential
- Socialization
- Infrastructures
- Production
- Trade

There are requirements to cover:

- Health
- Comfort
- Accessibility
- Safety
- Security



ENVIRONMENTAL IMPACT OF BUILDING

European Union:

“Buildings consume nearly 40% of our energy, produce 30% of waste that goes to dumping, consume 30% of our raw materials and 25% of our water”.





BUILDING REGULATIONS 2010

Part 1. General

Part 2. Control of Building Work

Part 3. Notices, Plans and Certificates

Part 4. Supervision of Building Work

Part 5. Self-certification Schemes

Part 6. Energy Efficiency requirements

Part 7. Water efficiency

Part 8. Information to be provided by the Person Carrying out Work

Part 9. Testing and Commissioning

Part 10. Miscellaneous



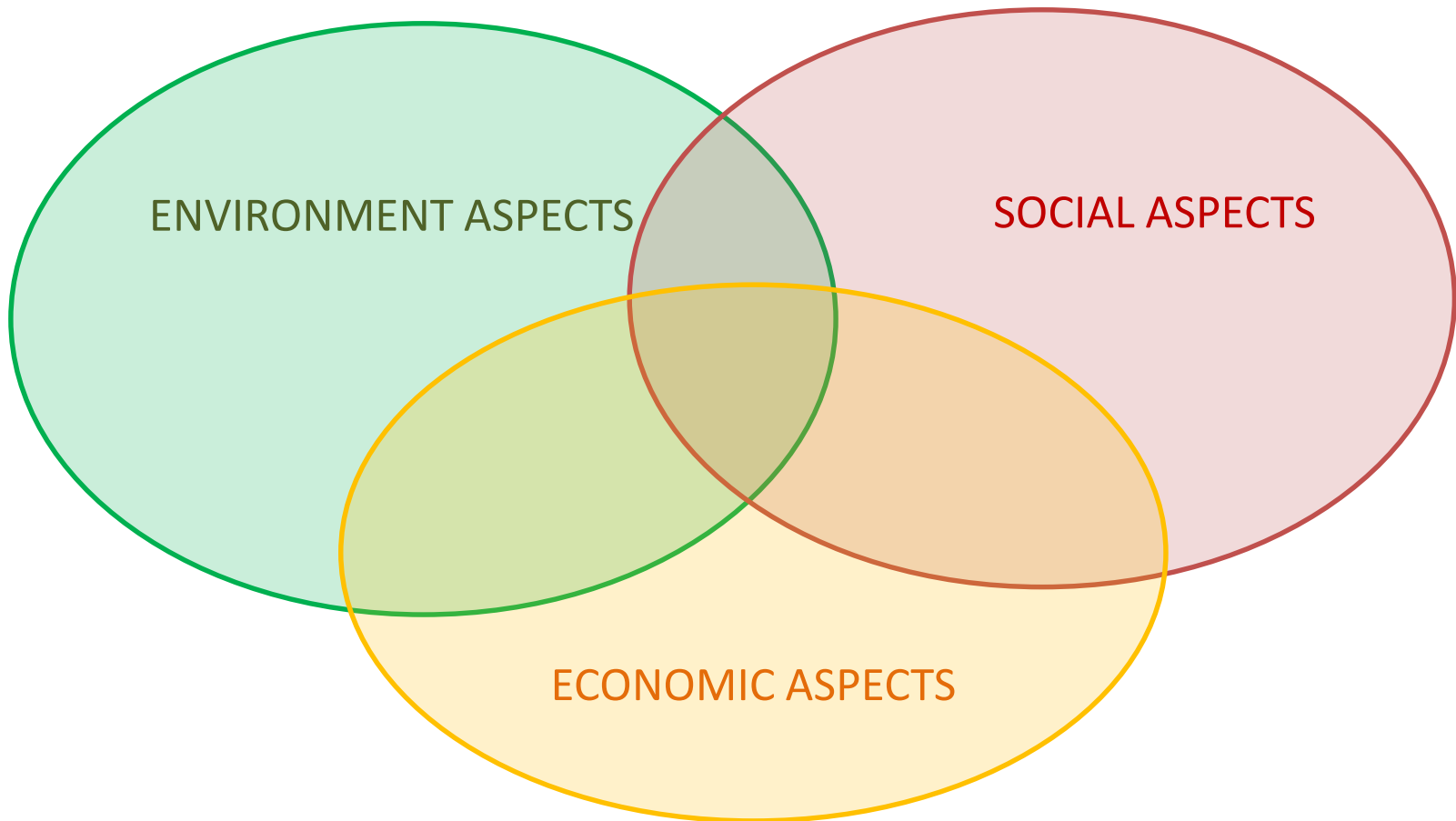
So, what is sustainable building?



[Read Article](#)



So, what is sustainable building?





Some concepts...

Green building

Green architecture / Green building design

Ecological architecture

Passive design

Renewable energy



ECOLOGICAL ARCHITECTURE





ECOLOGICAL ARCHITECTURE





BUILDING SUSTAINABILITY CERTIFICATION

There are approaches for building sustainability certification.

Some measurable aspects are:

- ☐ Energy consumption in materials production
- ☐ Energy efficiency
- ☐ Use of non-pollutant materials
- ☐ Possibilities for recycling and recovery
- ☐ Use of recycled materials
- ☐ Building use
- ☐ Energy consumption during use stage
- ☐ Use of surrounding resources
- ☐ Water consumption
- ☐ Access to natural light
- ☐ Heating and cooling systems
- ☐ Indoor air quality



BUILDING SUSTAINABILITY CERTIFICATION

Certification developed by an accredited assessor

Why is it useful?

- market recognition for low environmental impact buildings
- confidence in tested environmental practice
- innovative solutions to minimise environmental impact
- a standard for progress towards environmental objectives



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BUILDING SUSTAINABILITY CERTIFICATION

Some confusing concepts

Green building certification

Environmental certification

Environmental assessment certification

Green building rating



BUILDING SUSTAINABILITY CERTIFICATION

What do you know?

Examine the range of different approaches to the certification for the building certification

For next week: Read the following web and prepare for discussion.

<https://www.wbdg.org/resources/green-building-standards-and-certification-systems>

