



ENERGY SAVING

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Climate change is a global phenomenon and affects all of humanity!

During the 21st century, there will be global changes:

- average temperature on Earth will increase by about 3°C , which will cause very frequent extreme climatic situations such as extreme weather, floods, droughts... which will again be the cause of many health problems;
- sea and ocean levels will rise by about one meter, causing millions to relocate
- thousands of species will disappear from all over the planet.



Global change is reality

- human activities are partly responsible for them;
- climate change has multiple consequences (health, social, environmental and economic);
- everyone should, within their means, contribute to their reduction!

ENERGY SAVING

What needs to be done globally?

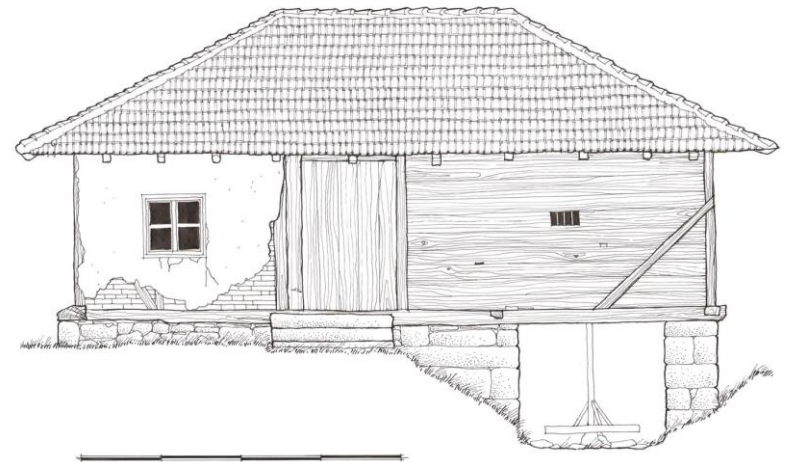
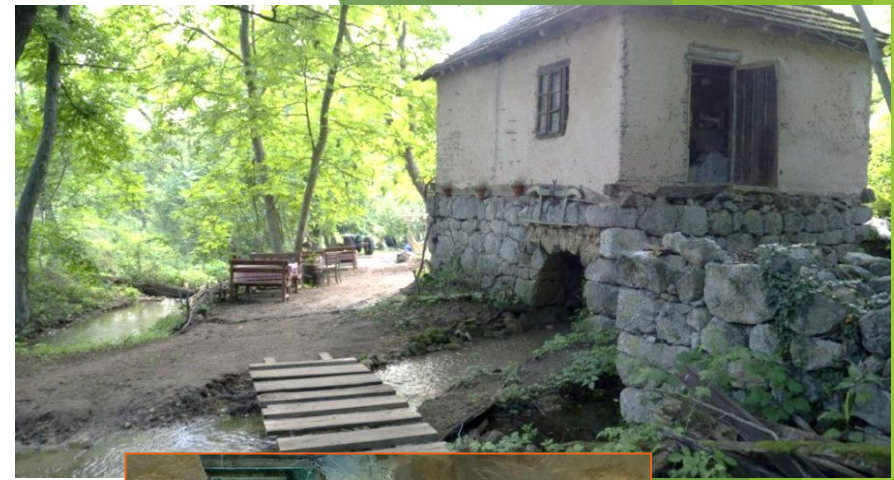
Better architectural solutions and energy savings in buildings could have more effect in the fight against global warming than all the greenhouse gas emission limits.

- **Reducing the emission of harmful substances into the atmosphere, which would reduce the greenhouse effect**
- **Energy saving (eg construction)**
- **Use of renewable energy sources (wind, solar, biomass energy ...)**

WATER MILL

-Water mill is a mill that is powered by water. They were used for grinding grain from the time when flour was obtained. The mill works by the water hitting a wooden wheel and then it starts. That wooden wheel turns the millstone.

-The mills in Šumadija mostly had one or two rooms. The first one had a mechanism for grinding grain, and the second one was used for storing flour and for the millers' lodgings. The walls were built of wood or stone or a combination of these materials.



THE GREEN HOUSE AS AN IDEA

-Green building refers to the entire process of designing, using and maintaining based on the principle of sustainability. The goal is to create an environment that is user-friendly, but not all based on energy savings. Materials used, radiation emissions and the use of renewable energy sources are also important items.

-It could be said that green building refers to the entire functionality of the building throughout its entire life cycle. Energy saving is the best way to reduce greenhouse gas emissions, but well-designed and maintained green buildings go beyond that. A similar term is natural construction, which differs from green in that it focuses more on the use of building materials that are locally available, not necessarily on energy savings.

-The Green House is an exhibit in the Science Park at the First Gymnasium in Kragujevac.



SELF-SUSTAINABLE HOUSE IN KRAGUJEVAC

A self-sustaining house was built in Kragujevac in 54 days. This house "B" of energy class is completely independent of the communal infrastructure because it has its own solar power plant and arterial well.

The house is totally independent of all public utility companies. It has its own solar power plant, an arterial well for water supply, a plant for processing and softening water from the well and a bio pit for filtering complete water from the household, which is later used to water the green roof and the area around the building.



SOLAR TREE

From now on, the students of the Second Gymnasium in Kragujevac , but also the students of the faculty in the immediate vicinity, will be able to recharge the batteries of their smartphones, tablets and iPhones via the solar charger, which is placed in front of this high school.

It is necessary for students to see the importance of renewable energy sources in the things they use every day, two such solar panels have been installed.



Science Park at the First Gymnasium in Kragujevac.



Science Park at the First Gymnasium in Kragujevac.

SOLAR BENCH

In order to promote the use of renewable energy sources and point out the necessity of environmental protection, solar benches have been set up at three locations in Kragujevac.

Prototypes of benches are made of steel, and in order to protect them from corrosion and various weather conditions, they are also plasticized.

