Climate Change, Cultural Heritage & Energy Efficient Monuments

Kohtla-Järve Järve Gymnasium

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About CO_2

- Five hundred million years ago carbon dioxide was 20 times more prevalent than today.

- Emissions of CO_2 due to human activities are currently more than 130 times bigger than the quantity emitted by volcanoes, amounting to about 27 billion tonnes per year.

There are many chances to extenuate CO_2 emission in common life

- Reducing heating
- Using the energy saver light bulbs
- Updating home appliances
- Turning off the lights if you don’t need them
- Using a washing machine and a dishwasher only when they’re full

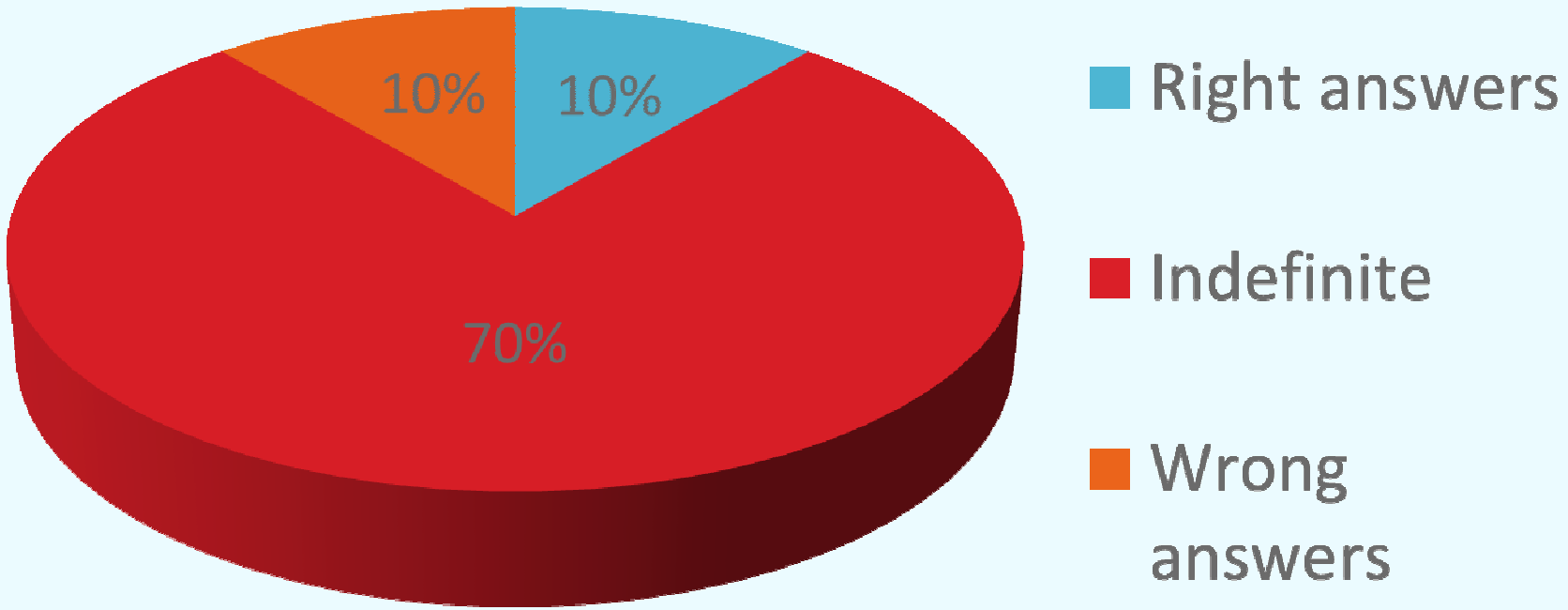
There are many chances to extenuate CO_2 emission in common life

- Trying to avoid driving short distances
- Using plastic bags for several times
- Sorting the trash
- Planting a tree
- Turning off the running water
- Installing the high-grade heat insulation

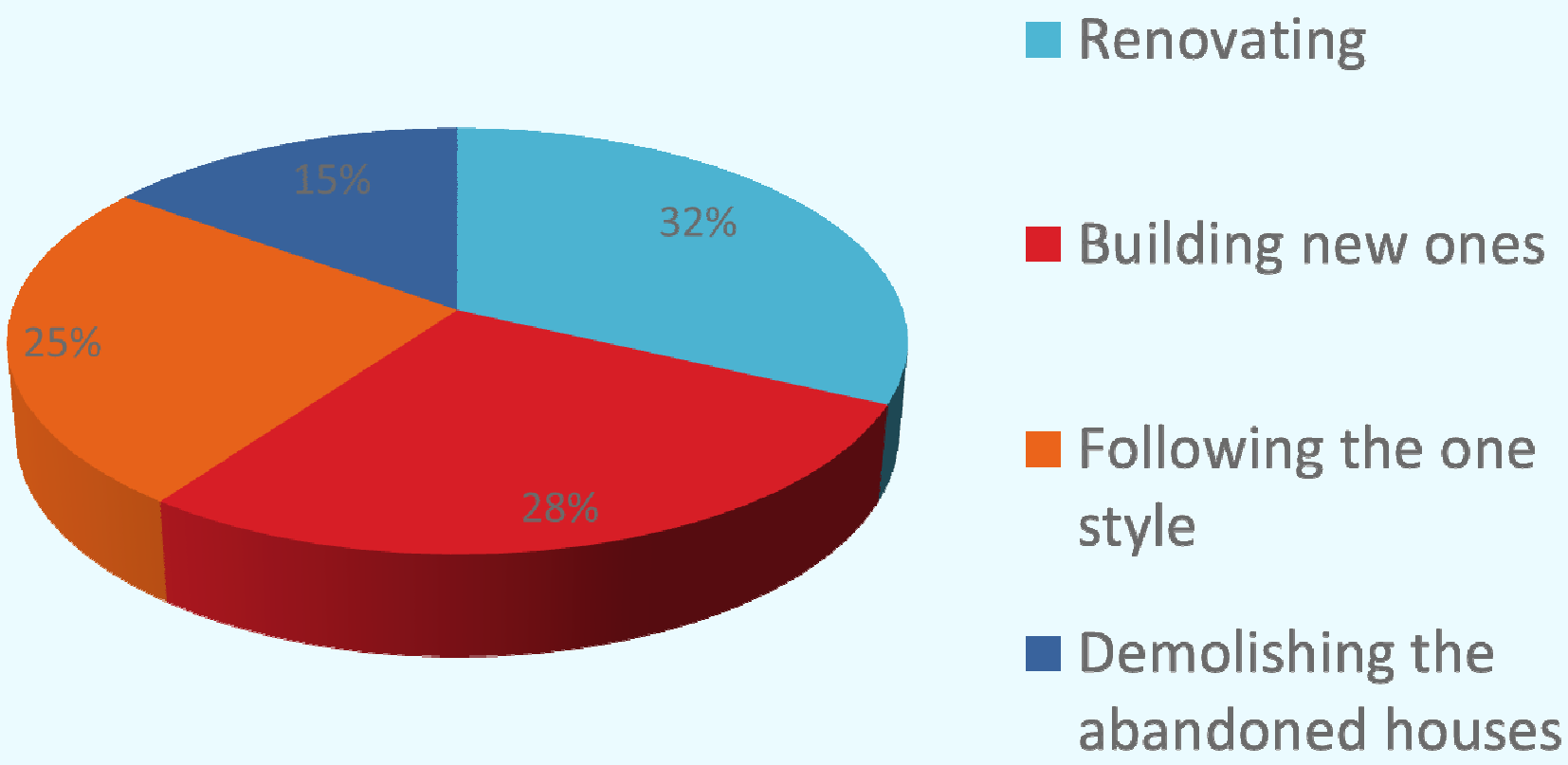
Research

- We did a research to find out how much is known about the connections between CO_2 emission and buildings. The selection of people to interview represents randomly chosen students from classes 9-11 and school teachers.

How is changing of wooden windows into plastic windows related to the CO_2 emission?



How to change the exterior of the town buildings in Kohtla-Järve so that it would be balanced?



Right answers

- If the building energetically functions well, there's less CO_2 emission
- Changing the one-glass window into the double-glass window in old buildings minimises energy loss by half. It saves up even more than 70% of energy cost.
- If there's less energy loss, then you need to heat and burn less fuel – so it minimises the CO_2 emissions.

Generally, only a few people knew about the connection between CO_2 emissions and heating insulation of the houses.

As a result, we can declare that people practically know nothing about this topic.

The effect of the buildings on climate changes

- There should be certain requirements to renovate the facades of the buildings to assure the evenness of architectural buildings.

- It’s not supposed to be allowed to change the original exterior of the buildings.

An average person approaches to the renovation of his house from his own point of view – it should be cheap, possibly fast and economically effective.


Rannila
•KINDLA KATTE KAUBAMÄRK•

In general, people aren't interested how the result matches with the exterior of the whole building.

If the validation of the regulations is late, the historical value of the buildings will be irreversibly lost.

Here are some examples of reaching the consensus

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Why to use the heat insulation?

- By the heat insulation of the buildings the heating expenses decrease, so does the CO_2 emission.

- This way the usage of the CO_2 quotas is increased and some unused quotas are available for the country.

CO_2 quotas

- From selling CO_2 quotas Estonia could get up to 6,5 million euros by the year 2013.
- The fifth of the benefit must be used with the certain purpose: to increase levels of greenhouse gas, to develop the decarbonizing technologies and to solve arising social problems.

CO_2 quotas

50% is divided proportionally between 5 counties. The other 50% is divided by the number of the population in the region. The estimated grand total is divided as follows:

North-Estonia 30%

South-Estonia 23%

North-Eastern Estonia 16%

Western-Estonia 16%

Middle-Estonia 15%

THANK YOU!

Used sources

- http://www.ehituslahendused.ee/download/keskastmeprojekt_tanel_esperk.pdf
- http://ec.europa.eu/clima/sites/campaign/pdf/ppt3-notes-et.pdf
- http://www.fin.ee/kov-investeeringud
- http://www.novaator.ee/ET/energia/kui_suur_on_maja_ehitamisest_tekkiv_co2_jalajalg_/
- Photos from the private gallery