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| **Project ID: 2021-1-CZ01-KA220-SCH-000034484**    **COURSE FOR ENVIRONMENTAL EDUCATION**  *e-Modules: Teaching Learning activities and their technology enhanced material set to develop*  ***DISCLAIMER***  *Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.*  Obsah obrázku symbol, Písmo, logo, Grafika  Popis byl vytvořen automaticky  **COURSE AUTHORS**   |  |  | | --- | --- | |  | Lubomír Hájek, Petra Garay |   **COURSE SHARING LICENSE**   |  |  | | --- | --- | | Une image contenant symbole, cercle, capture d’écran, Graphique  Description générée automatiquement | You are free to:   * Share — copy and redistribute the material in any medium or format for any purpose, even commercially. * Adapt — remix, transform, and build upon the material for any purpose, even commercially. | |

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| **MODULE 5** | **THE IMPACTS OF THE ENVIRONMENTAL PROBLEMS AND CLIMATE CHANGE PART 2 – CLIMATIC AND ENVIRONMENTAL CHALLENGES** |
| **PART 6** | **ENVIRONMENTAL INJUSTICE** |
| **Lesson 1** | **Environmental services; urban sprawl** |

**SUMMARY**

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# 1. COURSE TIME, TARGET AND TOPIC

* **Age of target students:** 15+
* **Teaching time:** 1 hour
* **Disciplines:** Biology, Geography, Human science, Physics, Chemistry
* **Title:** Environmental injustice, Urban sprawl

# 2. COURSE OBJECTIVES

## Competences promoted in this lesson:

* Communication in foreign languages competency
* Anticipatory competency
* Learning to learn competency
* Social and citizenship-related competencies
* Cultural awareness
* Integrated problem-solving competency

## Lesson objectives:

* The students deepen their knowledge regarding the topics of environmental issues, urban sprawl, indigenous communities
* The students are going to work on their awareness about the consequences of the urban expansion
* The students are going discuss their social responsibilities

# 3. LEARNING – TEACHING PROCESSES

There are 7 activities in this lesson:

1. **EXPLORE:** Environmental injustice, Introduction to urban sprawl
2. **ENGAGE:** The impact of urban sprawl
3. **EXTEND:** Urban sprawl - serious phenomenon of city development

# 4. EVALUATION

The evaluation is described in the last part of document.

# 5. DOCUMENTS

### EXPLORE

### *Environmental injustice*

### *Introduction to urban sprawl*

**Obsah obrázku skica, kresba, rostlina, strom

Popis byl vytvořen automatickyWhat is an environmental injustice?**

Obsah obrázku černá, tma

Popis byl vytvořen automatickyEnvironmental injustice is when those who are not responsible for the changes suffer because of ecological changes (pollution, climate change). We can usually deal with this problem in less developed countries. For example the struggle of indigenous tribes fighting against deforestation (of their home).

Measures were made against this injustice and the social movement was created and called environmental justice. This movement had its influence on the United Nations goals and it achieved success in rich countries (global waste trade).

In the most cases environmental injustice is caused by: urban sprawl, mining of mineral resources, waste management in less developed countries, etc. Less developed countries are most likely the ones being most influenced by injustice. Environmental injutice is basically a fight beetwen powerful and powerless.

1. developed country X less developed country
2. rich urban district X poor urban district
3. wealthy people X poor people

**Injustice in developed countries and third-world countries?**

In developed countries this injustice is regulated, all thanks to environmental rights. Every person deserves a stable and good living conditions and unlike less developed countries we manage to keep it that way.

**Task 1**

Have you or anybody in your town/country ever experienced environmental injustice?

(search for some examples of the environmental injustice on the internet. How are the people affected ?)

Some examples for you to get an idea :

In France, an extreme weather in 2003, caused by global changes and pollution took over 15 000 lifes. (most of the people were quite old, they suffered due to high temperatures)

In the Czech Republic, smog situation caused by emissions from industrial sources, local heating plants and transport and, to a large extent, the transfer of emissions from neighbouring countries had an impact on human health.

### *What is urban sprawl ?*

**Task 2**

Watch this video about Urban Sprawl. Work in groups and answer the questions below. Try to come up with as many answers and ideas as you can.

1. What are the consequences of urban sprawl?
2. Think of some ways how we could make existing places better – for example the city you live in.
3. Are there any factors in your city that could make it a better place for healthy living?

Obsah obrázku Letecké snímkování, snímek obrazovky, Pohled z ptačí perspektivy, Urbánní design

Popis byl vytvořen automaticky

<https://www.youtube.com/watch?v=XO_Qz8Gp7zk>

### ENGAGE

### *The impact of urban sprawl*

**Obsah obrázku skica, kresba, mrakodrap, budova

Popis byl vytvořen automatickyUrban sprawl** refers to uncontrolled expansion of urban areas, taking up agricultural land, wild nature and other important areas. Low-density communities are built, while people are dependent on their automobile even for short trips, creating an even bigger CO² footprint. As the cities continue to grow bigger and bigger more natural land is destroyed, leaving the urban communities usually completely without any trees, lawns and other greens that could improve the air condition.

<https://pin.it/5gyIDtOqt>

**Task** :  Split into four groups and try to come up with ways or small changes that could improve life in these locations.

Obsah obrázku Letecké snímkování, venku, Pohled z ptačí perspektivy, předměstí

Popis byl vytvořen automaticky

<https://pin.it/1S4wTgo9z>

**Biophilic architecture to urban sprawl**

Some cities are using urban greenery to decrease costs related to managing stormwater, air quality and temperature.

Obsah obrázku obraz, obloha, venku, budova

Popis byl vytvořen automaticky

<https://pin.it/1S4wTgo9z>

**Task**: In pairs, look at the picture, discuss benefits and downsides of this design. Tell each other if you would like to live in a building like this one.

**Public transportation and bike only**

Another bigger step to improve life in urban sprawl and massively decrease carbon emissions would probably be banning cars in high crowded areas and city centres. This would lead to more space for trees, sidewalks or bike lanes thus creating more clean air, less noise and traffic. On the other hand, there could be problems with delivery service, more traffic jams around the banned area, crowded public transportation and other problems.

**Task**: Together in class, try to find a city that has banned cars completely and write down examples.

### EXTEND

### *Urban sprawl- serious phenomenon of city development*

**URBAN SPRAWL**

Urban sprawl has been correlated with increased energy use, pollution, and traffic congestion and a decline in community distinctiveness and cohesiveness. In addition, by increasing the physical and environmental “footprints” of metropolitan areas, the phenomenon leads to the destruction of wildlife habitat and to the fragmentation of remaining natural areas.

**Keyterms:**

**Single-use zoning:**

* + everyday uses are separated from each other and are put together as bigger parts of land that provides the same type of services
  + meaning that shops are concentrated in one area, houses in another area
  + which leads to increased reliance on the private automobile for transportation or public transporations, limiting walking in the cities (making it almost impossible)

**Urban planning:**

* It is a process of developing and designing of urban areas to meet the needs of the city residents. Considering the facts of architecture, engineering, economics, sociology, public health, finance and other aspects to set better goals for future.

**Task :** Watch this video to find out more

* First video [**https://youtu.be/\_5ot\_1tbQX8?si=ttWt64DAu6vClVJU**](https://youtu.be/_5ot_1tbQX8?si=ttWt64DAu6vClVJU)
* Second video[**https://youtu.be/HdW1-guocPA?si=\_pd7QLH7Fei8N0Oc**](https://youtu.be/HdW1-guocPA?si=_pd7QLH7Fei8N0Oc)



### ENGAGE

**Environmental services:**

The service offered to people living in urban sprawl compared with the residents of well off settlements

**Task :**

1. WATCH VIDEO: <https://youtu.be/XY3yndaXsUU?si=Fok5gLrgUhV2F6AG>
2. Write down important keyterms from the video with notes to it.
3. Discuss what you have written. And make together a mind map or a picture of what an ideal city should include.
4. Try to make an Urban plan of how your city should grow in the future.

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**pictures without a source-pixabay**

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