



# Climate changes and eco-systems

Title	CLIMATE CHANGES AND ECO-SYSTEMS
Content/ Key words	Ecosystem, habitat, living community, biodiversity, adaptation of organisms
Description	<p><b>The ecosystem (“biogeocenosis”)</b> (eco + system), a natural community of living organisms and inanimate nature interacting on one habitat, in which the change of substance among them is circular.</p> <p><b>Habitat</b> is a living space, with the living conditions in which the individual lives and is accustomed to.</p> <p><b>Living community (biocenosis)</b> is a set of all organisms living in one habitat.</p> <p><b>Ecosystem = biocenosis + habitat</b></p> <p><b>Biodiversity</b> includes the number, diversity and variability of living organisms and species in particular ecosystems or habitats.</p> <p><b>Adaptation of organisms</b> refers to structural and functional modification of organisms for the purpose of their more effective alignment with the environment (<i>not the strongest nor the smartest survive, but those most adaptive to change - Darwin</i>).</p> <p><b>Climate change</b> increases the frequency and intensity of extreme weather, and natural ecosystems can protect against unwanted consequences. Biodiversity is a key resource for adaptation to new circumstances (mitigating consequences, reducing harm and risk).</p>





	<p><b>The role of forest in protection from climate changes</b></p> <p><b>The forest</b> is considered to be one of the most important bio-communities with enormous impact on the ecosystem. A healthy and biodiverse community of forests has a favorable influence on climate, agriculture, water and soil. The roots of trees prevent the effects of devastating torrents and soil erosion, purifies water through forest ground, and supplies underground watercourses, purifies air, mitigates the "greenhouse effect", creates favorable living conditions for living and development of other bio-communities (meadows...); thanks to all that, it creates favorable conditions for human health and life.</p> <p><b>Deforestation</b> creates the soil (habitat) for the development of meadow bio-community.</p> <p><b>Meadows biconosis</b> is a harmonious natural community consisted of: producers, consumers and decomposers.</p> <ol style="list-style-type: none"> <li>1. Producers on the meadow are plants that transform the sun's energy into the isomer of glucose (the basis of any organic substance).</li> <li>2. Consumers are animals. Consumers of the first order are herbivores (insects, birds, snails, mammalian herbivores: rodents, horses, sheep, goats, rabbits ...). Consumers of the second order are carnivores fed by herbivores (spiders, insecticide birds, foxes...)</li> <li>3. Decomposers are organisms capable of decomposing organic residues. They perform a very important function as they clean the system and prepare it for reconstruction. These are the birds fed by dead organisms (eagles, crows ...), insects and insect larvae...</li> </ol>
<p><b>Link to a national support by country</b></p>	<p><b>Croatian:</b></p> <ul style="list-style-type: none"> <li>• <a href="https://www.voda.hr/sites/default/files/5._hrvatska_konferencija_o_vodama.compressed.pdf">https://www.voda.hr/sites/default/files/5._hrvatska_konferencija_o_vodama.compressed.pdf</a></li> <li>• <a href="https://www.hrleksikon.info/definicija/bioloska-raznolikost.html">https://www.hrleksikon.info/definicija/bioloska-raznolikost.html</a></li> <li>• <a href="https://www.hrsume.hr/images/stories/savjetodavna/Publikacije/opcekorisne_funkcije.pdf">https://www.hrsume.hr/images/stories/savjetodavna/Publikacije/opcekorisne_funkcije.pdf</a></li> <li>• <a href="http://ljesnjak.pfos.hr/~jdanijel/literatura/Ekosustavi/Ekosustavi%20u%20ekoloskom%20bilinogojstvu_II.pdf">http://ljesnjak.pfos.hr/~jdanijel/literatura/Ekosustavi/Ekosustavi%20u%20ekoloskom%20bilinogojstvu_II.pdf</a></li> <li>• <a href="https://www.greenfacts.org/en/biodiversity/1-3/1-define-biodiversity.htm">https://www.greenfacts.org/en/biodiversity/1-3/1-define-biodiversity.htm</a></li> </ul>





	<ul style="list-style-type: none"> <li>• <a href="https://www.encyclopedie-environnement.org/vivant/adaptation-organismes-environnement/">https://www.encyclopedie-environnement.org/vivant/adaptation-organismes-environnement/</a></li> <li>• <a href="https://www.encyclopedie-environnement.org/sante/epigenome-facteurs-environnementaux/">https://www.encyclopedie-environnement.org/sante/epigenome-facteurs-environnementaux/</a></li> <li>• <a href="https://hr.luciafontaine.com/obrazovanie/89711-ekosistema-luga-potrebiteli-i-komponenty-ekosistemy-luga.html">https://hr.luciafontaine.com/obrazovanie/89711-ekosistema-luga-potrebiteli-i-komponenty-ekosistemy-luga.html</a></li> </ul>
<p><b>Links to activity/project sheets</b></p>	<p><b>Link to:</b></p> <p><b>Activity:</b> Activity: Exploring the consequences of climate change in our environment / Reactions of eco-system to climate changes / Activity to introduce Climate Change to students / The impacts of Climate change in your region / The impact of climate change on sardine growth / The skills of adaptation to climate changes / Acting as an eco-citizen in local community / The impact of climate change on the extinction of bees /</p> <p><b>Project:</b> Helping the bees to survive climate changes / Preserving the natural sources of water in the close surroundings</p>

