Lesson Plan: Climate Change Impacts in Armenia

As a **High School** or introductory **Undergraduate** teacher, you can use this lesson plan to **introduce climate change and its impacts in Armenia**.

This lesson plan provides an introduction to climate change, causes and impacts of climate change globally, climate change risk profile for Armenia that includes climate impacts on major sectors of the country such as agriculture, water resources, human health, ecosystems, infrastructure and disasters.

Thus, the use of this lesson plan allows you to teach Climate Science and Climate Change in your classrooms.

Use this Lesson Plan to help the students to understand and find answers to:

- 1. What is Climate Change? What are its causes?
- 2. What are the impacts of climate change on Armenia?
- 3. What are the impacts of climate change on precipitation, water resources and occupations & economy in Armenia?
- 4. What mitigation practices can be adopted to control the impacts of climate change in Armenia?

About the Lesson Plan

Grade Level	High School, Undergraduate	
Climate Topic	Climate Change Impacts in Your Country	
Location	Asia, Armenia	
Access	Online	
Language(s)	English	
Approximate Time Required	60 mins	

Contents

	Reading (15	A reading from the NASA Global Climate Change website that includes		
	min) and Video	information about what is the scientific evidence for climate change, causes, and		
	(5-15 min)	impacts of climate change. This can be accessed <u>here</u> .		
		Optional : A set of 7 short video micro-lectures (2-5 minutes in length) on		
		climate change and global warming developed by the National Research		
		Council, The National Academies of Sciences, Engineering, and Medicine. This		
		can be accessed <u>here</u>		
2.	Reading 1	A reading by Climate Change Knowledge Portal of the World Bank that explains		
	(World Bank)	climate change and impacts in Armenia.		
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		This can be accessed <u>here</u> .		
3	Reading 2	This reading is the Climate Change Risk Profile fact sheet for Armenia by		
	(USAID)	Climatelinks: A Global Knowledge Portal for Climate and Development		
	(COMD)	Practitioners USAID.		
		Tractitioners Comb.		
		This can be accessed here.		
4	Classroom/Lab			
	oratory Activity	, , , , , , , , , , , , , , , , , , , ,		
	•	also states the possible solutions to counter the crisis.		
	(15 min)	also states the possible solutions to counter the crisis.		
		The reading can be accessed here.		
		The video can be accessed here.		
		The video can be accessed here.		

Step-by-step User Guide

(Here is a step-by-step guide to using this lesson plan in the classroom/laboratory. We have suggested these steps as a possible plan of action. You may customize the lesson plan according to your preferences and requirements.)

1	Introduce Climate Change through the readings and videos	This reading titled, "The Causes of Climate Change" from the NASA Global Climate Change website, provides introductory information on climate change and global warming. It contains information on the scientific evidence of climate change, its causes and impacts.	
		This can be accessed <u>here</u> .	
		Optional: This set of 7 short video micro-lectures (2-5 minutes in length) have been developed by the National Research Council, The National Academies of Sciences, Engineering, and Medicine. This can be used to provide additional information on climate change.	
		They include:	
		1. What is Climate? Climate Change, Lines of Evidence Chapter 1	
		2. Is Earth Warming? Climate Change, Lines of Evidence Chapter 23. Greenhouse Gasses. Climate Change, Lines of Evidence Chapter 3	
		4. Increased Emissions. Climate Change, Lines of Evidence Chapter 4	
		5. How Much Warming? Climate Change, Lines of Evidence Chapter 5	
		6. Solar Influence. Climate Change, Lines of Evidence Chapter 6	
		7. Natural Cycles. Climate Change, Lines of Evidence Chapter 7	
		This video playlist can be accessed <u>here</u> .	

2	Discuss causes and	Use this interactive website by the Climate Change Knowledge Portal of the	
-	impacts of Climate	World Bank to have your students understand the impacts of Climate	
	Change in Armenia	Change in Armenia. This resource includes the following:	
		I. Climate Change Overview of Armenia	
		II. Country Summary	
		III. Current Climatology: Climate Trends and Variability in	
		Temperatures and Precipitation	
		IV. Climate Projections	
		V. Vulnerability of Armenia to Climate Change	
		Each section contains relevant climate change information including data, projections, and visualizations. The data is visualized through interactive graphs and users can select different indices, model projections, timescales, and sectors to better understand the impacts of climate change in Armenia.	
		This can be accessed <u>here</u> .	
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3	Further understanding on impacts of Climate Change on key sectors in Armenia	You may wish to have your students explore climate change and its risks in Armenia in more detail through a resource from climatelinks: A Global Knowledge Portal for Climate and Development Practitioners of the USAID.	
		This factsheet on climate risks in Armenia includes information on: I. Current and future climate impacts and vulnerabilities in Armenia. II. Climate impacts on key sectors of: 1) Agriculture 2) Water Resources 3) Human Health 4) Fisheries	
		This can be accessed here.	
	OPTIONAL	You may wish to conduct a {roleplay} activity in your classroom/laboratory	
4	Classroom/Laboratory Activity on the 'Lake Chad Crisis'	to further engage your students in understanding the climate crisis in Armenia; specifically on the impact of climate change on food security and water security in Armenia.	

Learning Outcomes:

The tools in this lesson plan will enable students to:

- learn about climate change and global warming
- understand the impacts of climate change in Armenia
- discuss how changing weather patterns due to climate change could affect Armenia's future
- describe the current and future health risks and economic impacts on Armenia due to climate change

Additional Resources

1.	Reading	Climate Risk Country Profile for Armenia: This reading by Climate Change Knowledge Portal of World Bank explains in detail the Climatology, Climate related Natural Hazards & Impacts and Policies and Programs in Armenia.	
2	Reading	Armenia Greenhouse Gas Emissions Fact Sheet: This fact sheet by Climatelinks: A Global Knowledge Portal for Climate and Developme Practitioners of the USAID, gives information about change in GHG Emissions in Armenia (1990-2013), GHG Emissions Relative to GDP and Mitigation Targets.	
3	Reading	Intended Nationally Determined Contribution, Armenia: This report provided by UNFCCC is a submission of commitment towards mitigating Climate Change by Armenia.	

Credits / Copyrights:

1	Reading "The Causes of Climate Change"	by the NASA Global Climate Change website
2	A set of videos; "Climate Change: Lines of Evidence"	Presented by National Research Council, <u>The National Academies of Sciences, Engineering, and Medicine</u>
3	Reading "Climate Change Risk Profile for Armenia"	By <u>Climate Change Knowledge Portal of the</u> <u>World Bank</u>
4	Reading "Climate Change Risk Profile for Armenia"	By <u>Climatelinks</u> : A Global Knowledge Portal for Climate and Development Practitioners, USAID
5	Additional Resources	Climate Risk Country Profile for Armenia
		Armenia Greenhouse Gas Emissions Fact Sheet
		Intended Nationally Determined Contribution, Armenia