

*It's not a myth*

# **CARIBBEAN CLIMATE CHANGE FOR HOME OWNERS**

*How global warming is changing the Caribbean*

**A short course for the  
Caribbean People**

**DR. LYNDONNA TELESFORD**

## Climate Change and Health Crisis A short course for the general Caribbean person.

### Course Description:

Understanding Climate Change: *Impacts on Health and Community Resilience in the Caribbean or Maybe in your backyard!*" is an enlightening and accessible course tailored for the general public in the Caribbean. It aims to demystify the complex phenomena of climate change, focusing on its tangible effects on health (*your health!*) and the imperative for community resilience. The course is structured to empower individuals and community's member, throughout the Caribbean, with the knowledge and tools necessary to adapt to and mitigate the ongoing challenges posed by a changing climate.



*If you are too busy to take this course at least leave with this message. "These Caribbean countries may not get cold, but it is getting very hot and humid, and you need to adapt, mitigate this change for your own good"*

Thank you for taking the time to invest in your health. Recalling that your health is your wealth!

### **Who Should Attend:**

This course is ideal for community leaders, fathers, mothers, aunty, uncle, paren and everyone in the household. Educators, environmental enthusiasts, and any engaged citizens who are concerned about the impacts of climate change on their community's health and wellbeing. It is designed to be approachable for individuals without a scientific background, making it a perfect fit for a broad demographic interested in making meaningful changes in their personal lives and communities.

### **Course Goals and Objectives:**

- **Understand the Science:** Grasp fundamental concepts of climate science, including the causes and mechanisms of climate change.
- **Link Health and Climate:** Recognize how climate change directly and indirectly affects public health.
- **Learn Adaptation Strategies:** Identify actionable strategies for enhancing community and personal resilience against climate-related disruptions.
- **Action Planning:** Equip participants with the tools to develop and implement effective climate action plans tailored to their local environments.

### **Learning Experience:**

Participants will engage in a variety of interactive and participatory learning activities throughout the 10-hour course, including:

- **Dynamic Presentations:** Simplified explanations of scientific concepts, provided through engaging online multimedia content.
- **Interactive Polls and Quizzes:** Tools to assess understanding and encourage active participation.
- **Group Discussions:** Opportunities to share experiences and ideas with peers.
- **Hands-On Workshops:** Practical sessions focused on creating actionable climate resilience and mitigation plans.

### **Outcomes:**

By the end of this course, participants will have a clear understanding of how climate change impacts their immediate environment, health, and community. They will gain practical knowledge on how to adapt to these changes and contribute effectively to mitigation efforts. Each participant will leave the course with a personalized action plan aimed at fostering resilience within their own lives and communities.

## Certification:

Upon successful completion of the course, including participation in discussions and activities and the submission of a personal or community action plan, participants will receive a Certificate of Completion. This certificate acknowledges their commitment to understanding and taking proactive steps towards addressing the impacts of climate change.

## Design Intentions and Outcomes:

This course is designed specifically for the general public, as opposed to health professionals, and here's how it differs in content and approach:

1. **Simplified Content:** The course content avoids technical jargon and complex scientific concepts that might be more appropriate for health professionals. Instead, it focuses on basic climate science and straightforward explanations of how climate change impacts health, which are more accessible to a general audience.
2. **Broader Focus on Practical Application:** While a course for health professionals might delve into specific health impacts, diagnostics, and treatments related to climate change, this course emphasizes practical strategies for adaptation and resilience that individuals and communities can implement. **It covers everyday actions that can help mitigate climate impacts, such as reducing carbon footprints and preparing for extreme weather events.**
3. **Engagement and Interactivity:** The course includes interactive workshops and action planning sessions that encourage participants to think about how they can apply what they've learned in their own lives and communities. This hands-on approach helps make the information more relatable and actionable for people who may not have a scientific or health background.
4. **Community and Policy Perspective:** Instead of focusing solely on the medical aspects of climate change, this course also explores the role of community efforts and policy in combating climate change. This broader perspective is crucial for the general public, who can advocate for and support policy changes at local and national levels.
5. **Resource Accessibility:** The course provides resources that are geared towards non-specialists, including websites, mobile apps, and community forums, which can help participants continue learning and become more involved after the course ends.

By tailoring the content, teaching methods, and resources to the interests and needs of the general public, this course aims to educate and empower a broad audience to understand climate change impacts and contribute to resilience and mitigation efforts in their daily lives and communities.

Here's a full course outline for "Understanding Climate Change: Impacts on Health and Community Resilience" designed specifically for the general public. This outline includes detailed module descriptions, learning objectives, and interactive components to engage participants effectively.

## Course Title: Understanding Climate Change: Impacts on Health and Community Resilience

### Course Syllabus

#### Course Description:

This introductory course is designed to educate the general public on the basics of climate change, its impacts on health, and the importance of community resilience. Participants will learn practical strategies to adapt to and mitigate the effects of climate change in their communities.

#### Learning Objectives:

- Understand basic climate science and the global and local impacts of climate change.
- Recognize the connections between climate change and public health issues.
- Identify strategies for community and individual resilience and adaptation.
- Develop an action plan to mitigate climate change impacts at a personal or community level.

**Total Course Duration: 10 Hours**

#### Course Modules:

##### GP: Introduction to Climate Change (1 Hour)

- **Learning Objectives:**
  - Define climate change and differentiate it from natural climate variability.
  - Understand the global effects of climate change and its relevance to everyday life.
- **Content:**
  - What is climate change?
  - Global impacts versus local impacts.
- **Interactive Component:**
  - Polls to capture participants' pre-course understanding and concerns about climate change.

##### GP: Climate Science Fundamentals (1 Hour)

- **Learning Objectives:**
  - Explain the greenhouse effect and major climate drivers.
  - Discuss the role of human activity in accelerating climate change.
- **Content:**
  - The greenhouse effect simplified.
  - Natural vs. anthropogenic drivers of climate change.
- **Interactive Component:**

- Short video clips and quizzes on climate science basics.

### **GP: Climate Change and Public Health (2 Hours)**

- **Learning Objectives:**
  - Identify health risks associated with climate change.
  - Examine case studies on health impacts of climate change globally.
- **Content:**
  - Direct health impacts (heatwaves, extreme weather).
  - Indirect health impacts (food and water security, mental health).
- **Interactive Component:**
  - Group discussion on local news stories or experiences related to climate and health.

### **GP: Community Health and Climate Resilience (2 Hours)**

- **Learning Objectives:**
  - Define resilience in the context of public health.
  - Explore how communities can prepare for and respond to climate-related health challenges.
- **Content:**
  - Building resilient healthcare systems.
  - Emergency preparedness and community planning.
- **Interactive Component:**
  - Workshop on emergency preparedness at home.

### **GP: Adaptive Strategies and Mitigation (2 Hours)**

- **Learning Objectives:**
  - Learn about adaptation strategies to reduce vulnerability.
  - Understand the importance of reducing carbon footprints.
- **Content:**
  - Community-based adaptation strategies.
  - Green practices for individuals and households.
- **Interactive Component:**
  - Interactive game on carbon footprint reduction.

### **GP: Practical Workshop and Action Planning (2 Hours)**

- **Learning Objectives:**
  - Create personal and community action plans.
  - Utilize tools and resources for ongoing climate action.
- **Content:**
  - Tools for creating effective action plans.
  - Engaging with local climate action groups.
- **Interactive Component:**

- Action plan development session with peer feedback.

**Evaluation Methods:**

- Quizzes at the end of each module to assess knowledge retention.
- Participation in discussions and interactive sessions.
- Submission of a personal or community action plan.

**Required Materials:**

- Internet access for online modules and resources.
- Course readings and videos provided via an online platform.

**Additional Resources:**

- List of online tools for climate and health monitoring.
- Access to a course forum for ongoing discussions and support.

**Certification:**

Participants will receive a Certificate of Completion upon successfully finishing the course and submitting their action plan, demonstrating their commitment to understanding and addressing the impacts of climate change on health and community resilience.

This course is designed to be engaging and informative, providing participants with the knowledge and tools needed to make a positive impact in their communities concerning climate change and health resilient.

## General Public Module 1: Introduction to Climate Change

### Lesson 1: Understanding Climate Change

#### Content:

Definition and explanation of climate change:

Climate change refers to significant, long-term changes in the global climate. It includes shifts in temperature, precipitation patterns, and other environmental effects that occur over several decades or longer. Climate change can result from natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun, as well as human activities, especially the burning of fossil fuels which increases heat-trapping greenhouse gas levels in the earth's atmosphere, leading to global warming.

Discussion on global climate change impacts with examples:

The impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly.

Examples of these impacts include:

- Increasing temperatures which have been linked to the rise in heatwaves across the world.
- Altered patterns of weather and precipitation leading to severe weather conditions such as more intense hurricanes and floods.
- Rising sea levels that threaten the existence of low-lying island nations and coastal cities.
- Changes in ecosystems and wildlife patterns, affecting biodiversity and potentially leading to the extinction of certain species.

#### Activities:

Watch a short video: "What is Climate Change?" by NASA Climate Kids.

This engaging video provides a clear and concise introduction to the concepts of climate change, suitable for all ages. It explains the basic science behind climate change, its causes, and its potential impacts.

Interactive poll: What are your main concerns about climate change?

Participants will be asked to respond to a poll about their main concerns regarding climate change. This activity aims to engage participants and understand their perceptions and worries about climate change impacts.

Here's a detailed breakdown for Lesson 1 of the "General Public Module" titled "Understanding Climate Change," which aims to introduce participants to the fundamentals of climate change and its global impacts. This lesson is designed to be engaging and informative, suitable for a general audience without prior extensive knowledge on the subject.

## General Public Module 1: Introduction to Climate Change

### Lesson 1: Understanding Climate Change

#### Content:

#### 1. Definition and Basic Concepts

**Climate Change Defined:** Explanation of what climate change is, focusing on the long-term alterations in temperatures and weather patterns. Discuss the distinction between climate change and natural variability.

**Causes of Climate Change:** Brief overview of the natural and anthropogenic factors contributing to climate change, emphasizing greenhouse gases and human activities such as deforestation, industrial processes, and fossil fuel combustion.

#### 2. Global Impacts of Climate Change

**Temperature Increases:** Discussion on how global warming has led to rising average temperatures, more frequent and severe heatwaves, and altered precipitation patterns.

**Melting Ice and Rising Sea Levels:** Explore the consequences of melting glaciers and polar ice caps, and how these contribute to rising sea levels, affecting coastal communities and ecosystems.

**Extreme Weather Events:** Examine the increase in intensity and frequency of hurricanes, floods, and droughts globally.

**Impact on Biodiversity:** Discuss how changing climates are affecting wildlife habitats, leading to shifts in species distribution and the extinction of certain species.

**Economic and Social Impacts:** Overview of how climate change impacts agriculture, water supply, health, and leads to economic losses and displacement of communities.

## Activities:

### 1. Watch a Short Video

Title: "What is Climate Change?" by NASA Climate Kids.

Purpose: This engaging and informative video provides a clear and concise introduction to the basic concepts of climate change, aimed at making the science accessible to all ages.

Action: After watching the video, encourage participants to share one new thing they learned about climate change.

### 2. Interactive Poll

Activity: Conduct a live poll asking participants, "What are your main concerns about climate change?"

Options could include: Rising sea levels, extreme weather events, impact on wildlife, health risks, economic impact.

Purpose: This activity aims to gauge participants' perceptions and concerns about climate change, fostering a discussion that connects their personal experiences and observations with the broader impacts of climate change.

Discussion: Follow up the poll with a group discussion to explore why participants chose their answers, encouraging them to relate personal experiences or news stories they've heard related to their concerns.

## References & Examples:

NASA Climate Kids: [NASA Climate Change and Global Warming](#)

Intergovernmental Panel on Climate Change (IPCC) Reports: Provide a link to the summary of the latest IPCC report for detailed scientific data on climate change impacts.

Visual Aids: Use infographics and charts from reputable sources like the IPCC or NOAA to illustrate points about temperature changes, sea-level rise, and historical CO2 levels.

This lesson structure is designed to not only educate participants about the basic facts of climate change but also to engage them on a personal and emotional level, prompting them to think about how global changes affect their own lives and environments.

## General Public Module 2: Climate Science Fundamentals

This unit explores the fundamental scientific concepts behind climate change, focusing on the greenhouse effect and the various natural and anthropogenic drivers of climate change. It aims to provide participants with a clear understanding of how these factors contribute to global warming and the role human activities play in accelerating these changes.



*Copyrite: PAHO*

## Lesson 2: The Greenhouse Effect and Climate Drivers

Time: 1 Hour

Modality: Self-Learning via Blended Online Learning

This lesson is designed to be self-directed using a blended online learning platform that incorporates chat functionalities for real-time interaction, group action learning, and participatory learning techniques.

### Content:

- **Explanation of the Greenhouse Effect:** Define and explain the greenhouse effect, illustrating how it naturally warms the Earth and how human activities amplify this effect.
- **Key Greenhouse Gases:** Discuss the major greenhouse gases (carbon dioxide, methane, nitrous oxide, and water vapor), their sources, and their impact on climate.
- **Human Contributions:** Highlight how human actions, such as industrial processes and agricultural practices, increase these gases in the atmosphere, intensifying global warming.
- **Natural Climate Drivers:** Outline natural factors affecting the climate, like solar variations and volcanic activity.
- **Anthropogenic Climate Drivers:** Focus on human-induced factors such as fossil fuel combustion and deforestation.
- **Comparative Impact:** Emphasize the significant role of human activities compared to natural factors in current climate changes.

### Activities:

- **Animated Video Viewing:** "The Greenhouse Effect in a Minute" – TED-Ed.
- **Interactive Quiz:** Engage in a short quiz that tests understanding of key concepts covered in the video and the lecture content.

### References & Examples:

- **NOAA's Greenhouse Gas Basics:** Offers in-depth information on various greenhouse gases and their roles in climate change (NOAA Greenhouse Gases).
- **IPCC Data Visualization:** Access the IPCC portal for graphical representations of greenhouse gas concentration trends over time (IPCC Data Portal).
- **Graphs and Charts:** Utilize interactive graphs and charts during the online session to demonstrate the relationship between greenhouse gas concentrations and global temperature changes.

### General Public Module 3: Climate Change and Public Health

This unit delves into the significant impacts of climate change on public health. It covers both the direct health impacts like heatwaves and extreme weather, as well as indirect effects such as food and water security and mental health challenges. Participants will learn about the critical interconnections between climate change and health, and the necessity for resilient healthcare systems to adapt to these changes.



### Lesson 3: Health Impacts of Climate Change

Time: 1 Hour

Modality: Self-Learning via Blended Online Learning

This lesson uses a blended online learning platform that integrates chat functionalities for real-time interaction, group action learning, and participatory learning techniques, focusing on the health impacts of climate change.

#### Content:

- **Direct Health Impacts:** Explore how climate change directly affects health through phenomena such as heatwaves, increased prevalence of respiratory diseases, and more frequent and intense natural disasters.
- **Indirect Health Impacts:** Discuss the broader implications of climate change on food security, water quality, and mental health, emphasizing how these factors influence overall public health.
- **Global and Local Case Studies:** Examine specific examples of how climate change has impacted health in various regions, including an analysis of recent events and ongoing research findings.

#### Activities:

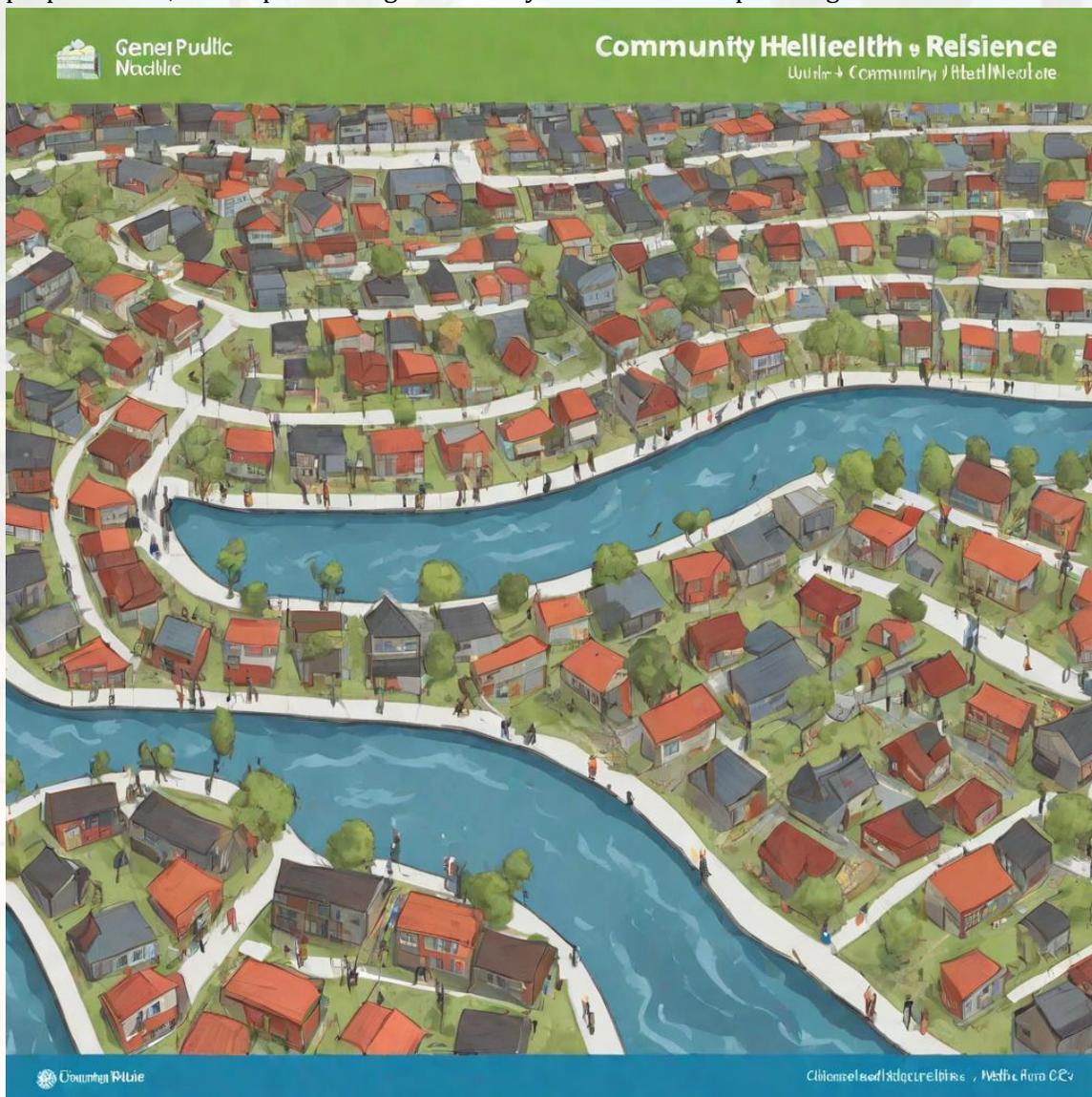
- **Case Study Discussion:** Review a case study on the 2003 European heatwave and its health impacts.
- **Video Analysis:** Watch and discuss a WHO video on climate change and emerging infectious diseases, highlighting how changing climates influence disease patterns.

#### References & Examples:

- **WHO on Climate Change and Health:** Provides comprehensive resources and data on how climate change affects health (WHO Climate and Health).
- **CDC's Climate and Health Program:** Outlines how the CDC is addressing the health impacts of climate change (CDC Climate and Health).

## General Public Module 4: Community Health and Climate Resilience

This unit focuses on the critical aspects of building resilience within communities to effectively manage and respond to the health challenges posed by climate change. It explores strategies for developing resilient healthcare systems, enhancing emergency preparedness, and implementing community-wide resilience planning.



### Lesson 4: Building Resilient Health Systems

## Lesson 4: Building Resilient Health Systems

Time: 1 Hour

Modality: Self-Learning via Blended Online Learning

This lesson is designed as a self-learning module using blended online learning platforms that incorporate interactive chat functionalities, group actions, and participatory learning to focus on resilience strategies in health systems.

### Content:

- **Defining Resilience in Healthcare:** Understand the concept of resilience as it applies to healthcare systems, including the ability to prepare for, respond to, and recover from health impacts related to climate change.
- **Components of a Resilient Health System:** Explore the key components that make a health system resilient to climate change, such as robust infrastructure, effective emergency response plans, and adaptive healthcare practices.
- **Case Studies of Resilient Health Systems:** Discuss real-world examples of healthcare systems that have successfully implemented resilience strategies to combat climate-related health challenges.

### Activities:

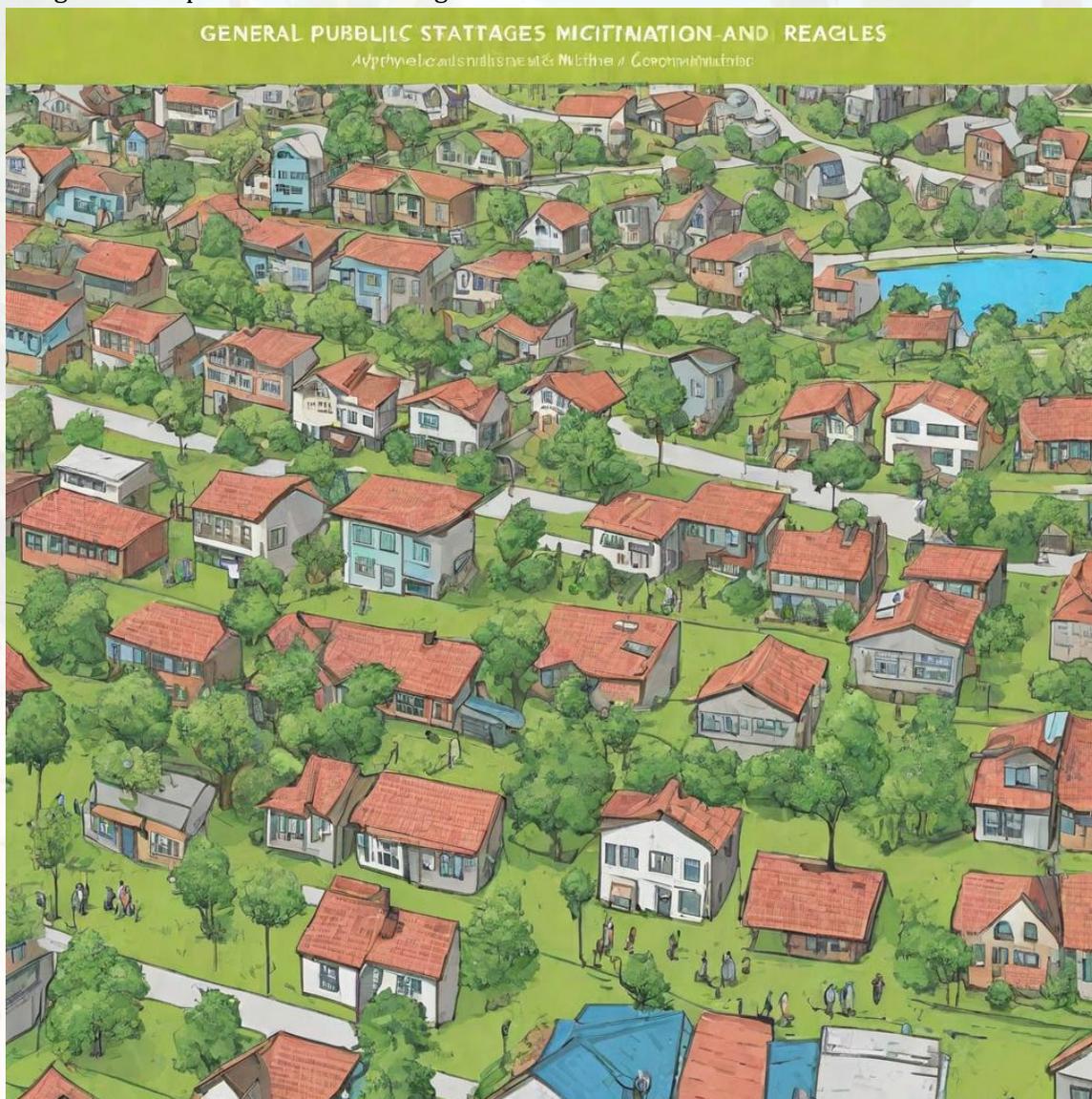
- **Interactive Webinar:** Participate in a webinar with a healthcare professional specializing in resilience planning. Participants will have the opportunity to ask questions and discuss real-life applications of resilience strategies.
- **Group Project:** Design a basic emergency preparedness plan for a hypothetical community, focusing on healthcare aspects and resilience measures.

### References & Examples:

- **CDC's Building Resilience Against Climate Effects (BRACE) Framework:** A guide on how to develop strategies to improve community health resilience against climate effects (CDC BRACE).
- **Resilience in Healthcare: Overview by WHO:** Provides insights into building resilient health systems worldwide (WHO Health Resilience).

## General Public Module 5: Adaptive Strategies and Mitigation

This unit explores adaptive strategies and mitigation measures to address climate change, focusing on community and individual actions. It provides insights into how communities and individuals can reduce their carbon footprint and implement sustainable practices to mitigate the impacts of climate change on health and the environment.



### Lesson 5: Strategies for Adaptation and Mitigation

## Lesson 5: Strategies for Adaptation and Mitigation

Time: 1 Hour

Modality: Self-Learning via Blended Online Learning

This lesson utilizes a blended online learning approach that combines self-learning with interactive chat functionalities, group activities, and participatory learning to focus on practical strategies for climate change adaptation and mitigation.

### Content:

- **Adaptation vs. Mitigation:** Define and distinguish between adaptation (adjusting to life in a changing climate) and mitigation (reducing the causes of climate change).
- **Community-Based Adaptation Strategies:** Explore how communities can adapt to climate change impacts with examples of successful community initiatives.
- **Personal Mitigation Efforts:** Discuss the role of individual actions in mitigating climate change, including energy conservation, waste reduction, and sustainable transportation options.

### Activities:

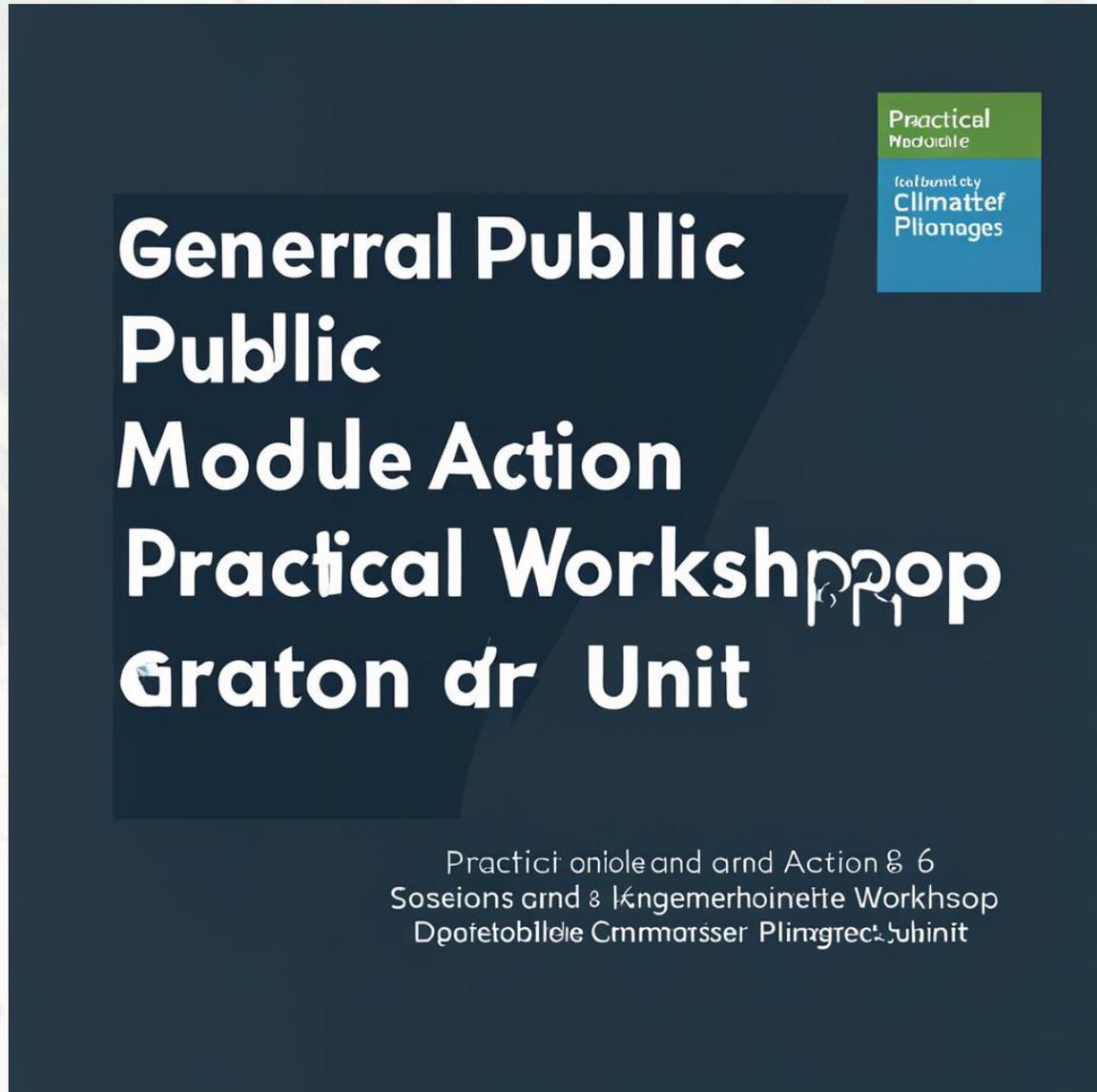
- **Interactive Tool Session:** Use an online carbon footprint calculator to assess personal or household carbon emissions and discuss ways to reduce them.
- **Discussion and Brainstorming:** Participants discuss their roles in community adaptation strategies and share personal commitments to reducing their environmental impact.

### References & Examples:

- **UNFCCC Resources on Adaptation and Mitigation:** Provides extensive resources and case studies on global efforts to combat climate change (UNFCCC Portal).
- **Project Drawdown:** Review solutions and strategies from Project Drawdown, a comprehensive plan to reverse global warming (Drawdown Solutions).

## General Public Module 6: Practical Workshop and Action Planning

This unit is designed to consolidate the knowledge and insights gained from previous modules and apply them in practical terms. Participants will engage in workshops to develop actionable plans that can be implemented in their communities or personal lives to address climate change impacts effectively.



**Practical  
Module**

**Community  
Climate  
Planning**

# General Public Module Action Planning Practical Workshop and Action Planning Unit

Practical Module and Action Planning  
Sessions and a Community Climate  
Planning Workshop

### Lesson 6: Creating Action Plans

Time: 1 Hour

Modality: Self-Learning via Blended Online Learning

This lesson engages participants in a practical workshop using blended online learning platforms, integrating chat functionalities, group collaboration, and participatory learning to develop personal and community action plans.

**Content:**

- **Understanding Action Plans:** Learn about the components of effective action plans for addressing climate change, including goals, strategies, and metrics for measuring success.
- **Developing Personal Action Plans:** Guide participants through the process of creating personal action plans that reflect their individual capacity to make changes that contribute to climate mitigation and adaptation.
- **Community Action Planning:** Discuss the importance of collective actions in communities and how to engage community members in sustainability projects.

**Activities:**

- **Workshop:** Participants use templates and tools provided during the session to create their own action plans, with facilitators available for guidance.
- **Peer Review:** Participants exchange action plans with peers for review and constructive feedback, fostering a collaborative learning environment.

**References & Examples:**

- **Project Drawdown's Climate Solutions:** Explore comprehensive climate action strategies from Project Drawdown, providing a broad spectrum of solutions (Project Drawdown Website).
- **EPA's Guide to Personal and Community Action:** Offers guidance on how individuals and communities can contribute to climate change mitigation (EPA Community Actions).

