

# CLIMATE CHANGE



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## Objectives

- Raise awareness and understanding of the main aspects of climate change and its principle impacts on various levels of human well-being: social, cultural, economic, environmental and health.
- Provide elements to raise education community awareness of its importance and possible local actions.
- Bring climate change terminology closer to the students' reality, so that they understand its impact on their immediate environment.



## CLIMATE CHANGE

According to the United Nations Framework Convention on Climate Change (UNFCCC)<sup>92</sup>: Climate change is “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods”.

Such global climate change gives rise to a series of adverse effects, which are now a major global concern. **Changes in our climate are mainly caused by greenhouse gas emissions, which are usually the result of human activities.** Greenhouse gas emissions from human activities were responsible for approximately 1.1°C global warming between 1850-1900.<sup>93</sup>

<sup>92</sup> United Nations. (1992). United Nations Framework Convention on Climate Change. <https://unfccc.int/resource/docs/convkp/conveng.pdf>

<sup>93</sup> IPCC, (2021) Climate Change 2021: The Physical Science Basis <https://www.ipcc.ch/report/ar6/wg1/>

## Basic concepts:

### GLOBAL WARMING

Long-term increase in the average temperature of the Earth's climate system, and one of the main aspects of current climate change.

### GREENHOUSE GASES (GHGS)

gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infra-red radiation. Some of the main gases responsible for global warming are:

- **Carbon dioxide (CO<sub>2</sub>)**, which is mainly emitted by burning fossil fuels, the destruction of forests and forest fires.
- **Methane (CH<sub>4</sub>)**, which is released when organic matter decomposes in the absence of oxygen, as in swampy areas, landfills, etc. It is also released in rice cultivation and livestock activities.
- **Nitrous oxide (N<sub>2</sub>O)**, released in industrial production and in the use of nitrogenous agricultural fertilisers, which has a high heating potential.
- **Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>)**, which are man-made fluorinated gases created by industry for specific uses, remain in the atmosphere for a long time and have a very high warming potential.

Today, we are suffering the serious and increasing consequences of climate change. According to the Convention, **the adverse effects of climate change are changes in the physical environment or biota**<sup>94</sup> resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.

These include: the melting of the polar ice caps; rising sea levels; ocean acidification; loss of forest vegetation; droughts, fires and desertification in arid and semi-arid areas; the death of animal and plant species; overflowing rivers and lakes; air pollution; migration or extinction of wildlife species; migration of people (whom we now call "climate refugees"); destruction of food sources.

**There are several global alternatives to these major challenges: mitigation, adaptation and resilience.**

<sup>94</sup> All flora, fauna and other organisms in a given place.

## Basic concepts:

### MITIGATION

This includes policies, technologies and measures to limit and reduce GHG emissions and enhance GHG sinks<sup>95</sup>. Some of the mitigation activities being promoted include: Afforestation and reforestation; early warning of forest fires and programmes to fight pollution in mining and hydrocarbons; energy efficiency; energy transition to renewable energy; electrification of industrial processes; efficient means of transport (electric public transport, cycling, car sharing); carbon or energy tax and emission markets; voluntary energy use agreements and carbon emission standards; information and institutional and social actor capacity building; inter-institutional and international coordination; etc.

### ADAPTATION

According to the UNFCCC, adaptation means adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects or impacts<sup>96</sup>. There is no ideal adaptation solution, as this depends on the unique context of the country, sector, organisation or region. Examples include: building safer facilities and infrastructure; nature-based solutions (NBS)<sup>97</sup>; ecosystem restoration; landscape restoration and reforestation; prevention and precautionary measures; recovery of extremophile species, restoration of wetlands, grasslands and corals; etc.

<sup>95</sup> "Sink" means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere. For example: Trees.

<sup>96</sup> UNFCCC. (n.d.). What do adaptation to climate change and climate resilience mean? Unfccc.int. Retrieved 29 September 2022, from <https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean>

<sup>97</sup> Nature-based Solutions (n.d.) Nature-Based Solutions™ leverage nature and the power of healthy ecosystems to protect people, optimise infrastructure, and safeguard a stable and biodiverse future. Retrieved 29 September 2022, from <https://www.iucn.org/our-work/nature-based-solutions>



## CLIMATE RESILIENCE

The capacity of an ecological or social system to absorb disturbances while maintaining the same basic structure and ways of functioning, the capacity for autonomous organisation and the capacity to adapt to change.

Numerous meetings and various international agreements have been achieved in recent years, intended to make progress and improve the global climate change situation. Based on the principles of the United Nations Framework Convention on Climate Change, the Kyoto Protocol, an agreement by which industrialised countries committed themselves to reduce their GHG emissions, was signed in 1997.

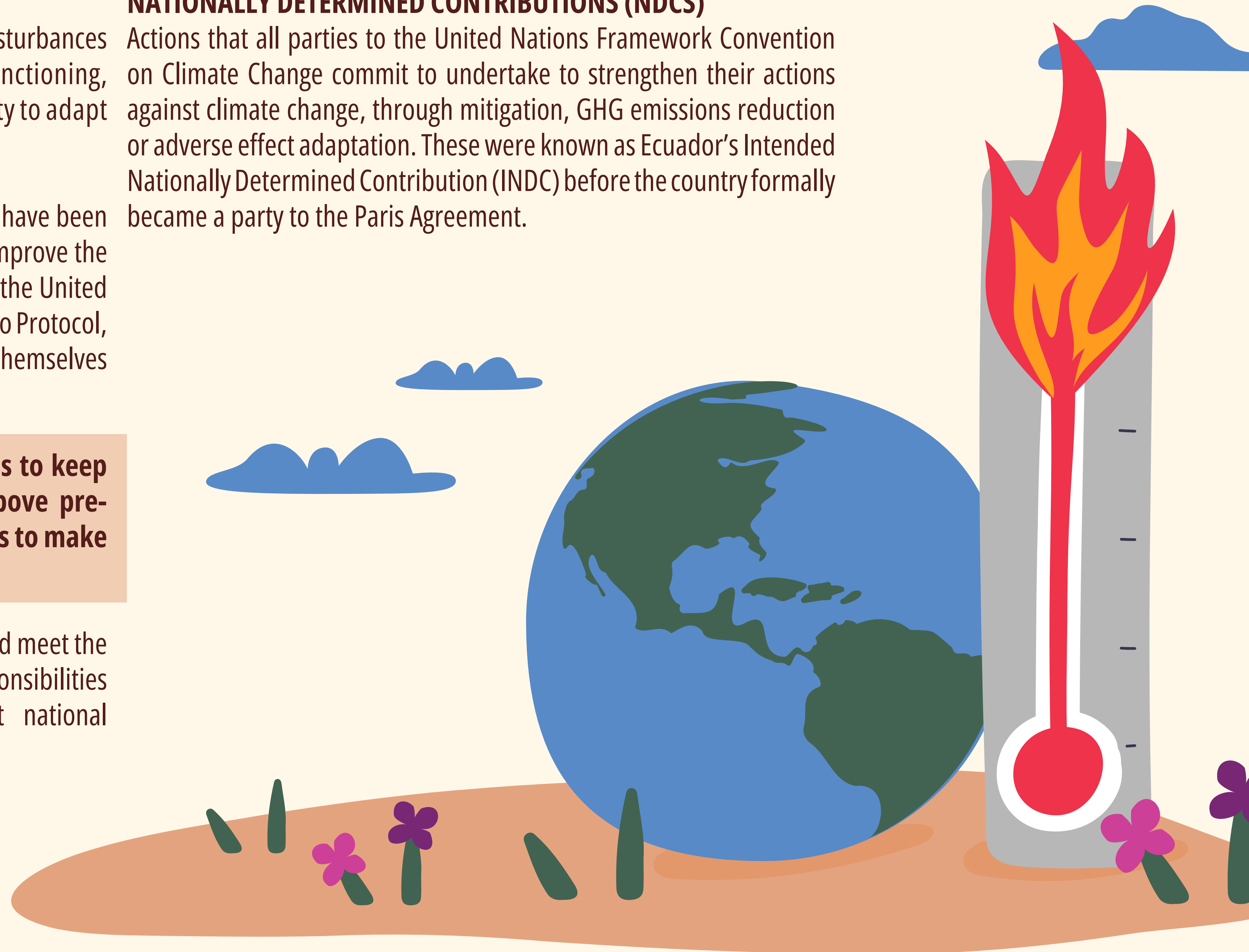
**The Paris Agreement was approved in 2015.<sup>98</sup> It aims to keep the average global temperature well below 2°C above pre-industrial levels this century, and commits the parties to make all efforts necessary to limit this increase to 1.5°C.**

It establishes a number of national contributions that should meet the international principle of “common but differentiated responsibilities and respective capabilities, in the light of different national circumstances”.

<sup>98</sup> UNFCCC (2022) Paris Agreement [unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf)

## NATIONALLY DETERMINED CONTRIBUTIONS (NDCS)

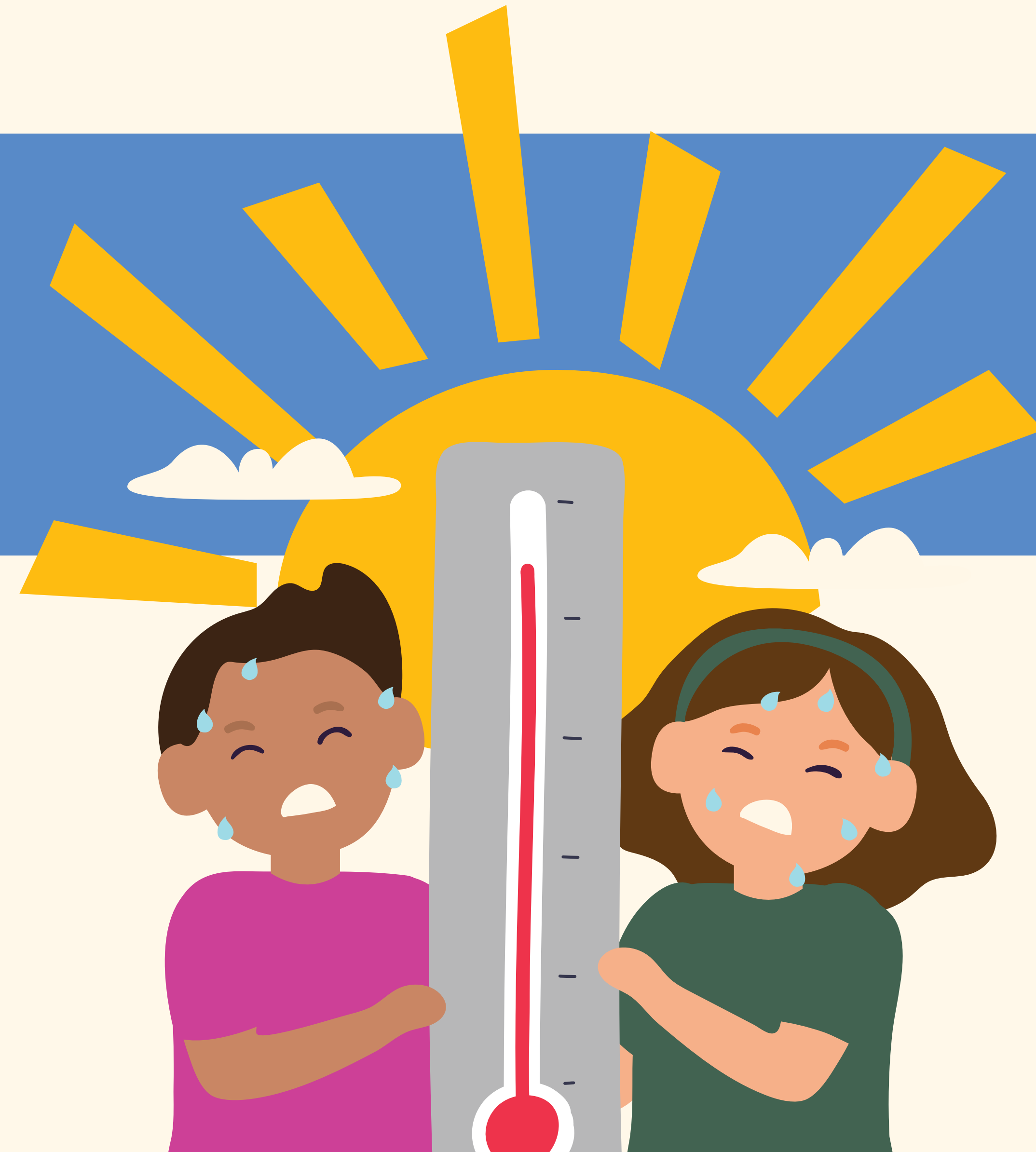
Actions that all parties to the United Nations Framework Convention on Climate Change commit to undertake to strengthen their actions against climate change, through mitigation, GHG emissions reduction or adverse effect adaptation. These were known as Ecuador’s Intended Nationally Determined Contribution (INDC) before the country formally became a party to the Paris Agreement.



# Our connections with climate change

Humans, like animals and plants, have a natural relationship with the climate. **Throughout history, natural climate changes have prompted humans to change their activities or places. Such adaptation processes also occurred in fauna and flora.** The behaviour of some bird species, such as the *Furnarius rufus* ovenbird whose mud nests have special entrances that local people have observed to be placed according to the weather conditions, providing interesting examples of adaptation. This specificity is also the subject of scientific research.

Today, the most important thing to bear in mind is to define these situations and their connections with pollution and the current aggravation of climate situations, and the consequent actions of human beings, animals and plants. Climate change has now caused serious social and economic concerns. International meetings on the subject, youth movements, news of the various problems caused by climate change, as well as warnings and proposals by various organisations are worrying people in their various spheres of life.





This has led to some interesting campaigns and reactions to improve social habits and behaviour, to try to reduce personal or collective emissions and to limit activities that lead to environmental problems at all levels. Further work is needed, but we are certainly at a crucial moment for overcoming this situation and we need to change our social

and economic attitudes by designing policies to support this process. **The goal is to achieve systemic changes that transform how we produce, consume and live; bearing in mind that our societies are part of and dependent on our natural environment and its ecosystem services.**<sup>99</sup>

<sup>99</sup> FAO (2022) <https://www.fao.org/ecosystem-services-biodiversity/en/>



Throughout history, adaptive behaviours and activities supported by culture have emerged and developed. Today, these can be held up as examples for overcoming some of the problems related to climate change. Many of the examples in the region are very interesting, for example the study on *Conocimientos Ancestrales y Adaptación al Cambio Climático en Comunidades Altoandinas de la Región de Huancavelica* (Ancestral Knowledge and Adaptation to Climate Change in High Andean Communities in the Huancavelica Region).

It compiles and analyses the practices, testimonies and beliefs farmers use to predict extreme weather variations (frost, snowfall, hailstorms, torrential rains, droughts, etc). The high Andes population in alpaca-breeding areas hold a wealth of traditional knowledge, experience, adaptive capacity and resilience to climate variability, and are therefore in one of the best positions to adapt to or cope with climate change. They can be an example of adaptation for other social groups and diverse communities.

Similarly, numerous experiences in all countries in the region can make a significant contribution to tackling and overcoming the effects of climate change.



# Context in Latin America and the Caribbean

The countries of Latin America and the Caribbean face a complex situation in terms of climate change. The *Economics of Climate Change in Latin America and the Caribbean*<sup>100</sup> report shows its asymmetry: **although the region emits less than 10% of global emissions, it is extremely vulnerable to the impact of climate change.** It also observes that GHG emissions in LAC have a different structure from those of global emissions: emissions from land use change are relevant, as they are gradually decreasing, and the region has a cleaner energy matrix, although emissions are increasing due to evolutions in income and energy consumption along with transport, particularly urban.

The study also mentions a doubly inequitable situation, as the higher-income economic strata are responsible for most of the emissions in Latin America and the Caribbean; the lower strata produce fewer CO2 emissions, but are more vulnerable to their effects: they live in geographical regions more exposed to extreme weather events and have fewer resources to adapt to the new climate conditions. And it is

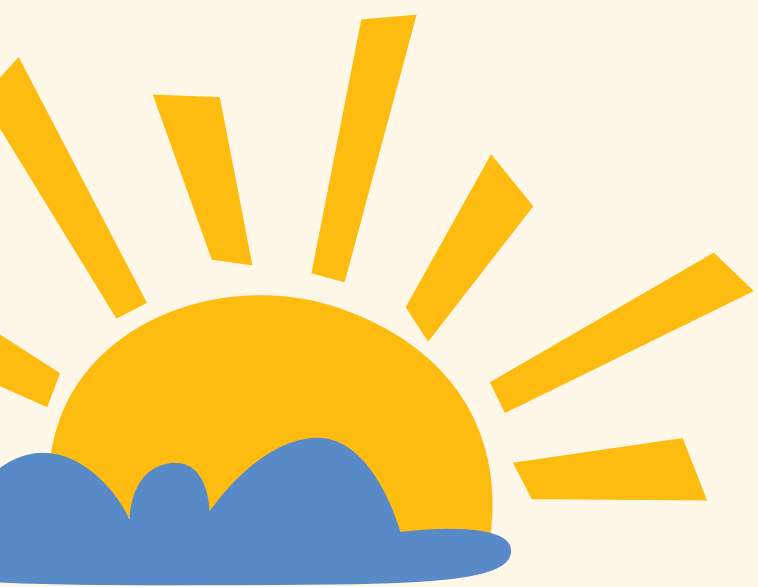
precisely these communities who are most dependent on the natural resources affected by climate change. **This climate injustice is also manifesting at global level, as the populations least responsible for climate change will be those most affected by it, and will face the greatest resulting losses and damage.**

All countries have committed to various NDCs in line with their specific policies and capabilities. An analysis of the NDCs in LAC<sup>101</sup> takes stock of the information received and concludes that Latin America and the Caribbean's responsible approach to tackling climate change is clear, as the region has demonstrated its willingness to contribute to reducing emissions and is clear about the fact that **adapting to changing climate conditions is a priority**, for which the conservation of biodiversity is key as **biodiversity loss is linked to global warming.** For example, Costa Rica's NDC included the creation of a Climate Change Scientific Council and a Climate Change Advisory Council to improve the collection and quality of climate change information. The



<sup>100</sup> Economic Commission for Latin America and the Caribbean. (2018). Economics of climate change in Latin America and the Caribbean: a graphic view <https://repositorio.cepal.org/handle/11362/43889>

<sup>101</sup> United Nations Development Programme. (2016). Análisis de las (I)NDC de la región de América Latina y el Caribe (Analysis of (I)NDCs in Latin America and the Caribbean region). [https://www.latinamerica.undp.org/content/rblac/es/home/library/environment\\_energy/analisis-de-las-i-ndc-de-region-de-america-latina-y-el-carib.html](https://www.latinamerica.undp.org/content/rblac/es/home/library/environment_energy/analisis-de-las-i-ndc-de-region-de-america-latina-y-el-carib.html)



Carbon Neutral Country programme was also implemented, aiming to bring GHG emissions to zero through the use of 100% renewable energy sources nationwide, including a proposal for electric public transport. Another example is the creation of the Consejo Presidencial del Cambio Climático (Presidential Council on Climate Change) during the Honduran NDC implementation process to coordinate and promote policies and the direction of national environmental governance. In order to comply with its Paris Agreement commitments, Uruguay formed an inter-institutional group to implement the NDCs and a range of indicators to monitor progress and adaptation plans<sup>102</sup>.

In compliance with the objectives of the Paris Agreement and the Sustainable Development Goals (SDGs)<sup>103</sup>, **the region has begun the transition towards low-carbon development paths and sustainable models.** Many countries have put people and rights at the centre of their adaptation and mitigation measures, seeking to respect, protect and fulfil human rights.

In addition, **the Regional Agreement on Access to Information, Public Participation and Access to Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement<sup>104</sup>) is the first regional environmental treaty and the first environmental agreement** in the world to establish specific provisions on human rights defenders in environmental matters. It is also a valuable tool for improving climate governance and countering the adverse effects of climate change in the region's countries. **The Escazú Agreement helps safeguard human rights in the context of climate change. It promotes access to climate information, and proposes preventing, investigating and punishing all attacks against human rights defenders in environmental matters.** As the world's first international treaty to address the issue of human rights defenders in environmental matters, it recognises the realities in the region. According to the latest "Last Line of Defence" report<sup>105</sup> by environmental rights organisation Global Witness, LAC is the most dangerous region for environmental defenders. In 2020, more than half of the attacks on defenders occurred in just three countries: Colombia, Mexico and the Philippines.

<sup>102</sup> Economic Commission for Latin America and the Caribbean (2019). Panorama de las contribuciones determinadas a nivel nacional en América Latina y el Caribe (Overview of contributions determined at the national level in Latin America and the Caribbean), 2019 [https://repositorio.cepal.org/bitstream/handle/11362/44974/S1900855\\_es.pdf?sequence=4&isAllowed=y](https://repositorio.cepal.org/bitstream/handle/11362/44974/S1900855_es.pdf?sequence=4&isAllowed=y)

<sup>103</sup> UN (n.d.) Sustainable Development Goals <https://www.un.org/sustainabledevelopment>

<sup>104</sup> Economic Commission for Latin America and the Caribbean. (2018). Regional Agreement on Access to Information, Public Participation and Access to Justice in Environmental Matters in Latin America and the Caribbean. [https://repositorio.cepal.org/bitstream/handle/11362/43583/1/S1800428\\_en.pdf](https://repositorio.cepal.org/bitstream/handle/11362/43583/1/S1800428_en.pdf)

<sup>105</sup> Global Witness. (2021). "Last Line of Defence" Global Witness. <https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/>

# Context in Ecuador



Article 414 of the Constitution of the Republic of Ecuador states that *“The State shall adopt adequate and cross-cutting measures for the mitigation of climate change, by limiting greenhouse gas emissions, deforestation and air pollution; it shall take measures for the conservation of the forests and vegetation; and it shall protect the population at risk”*. The Estrategia Nacional de Cambio Climático del Ecuador - ENCC (National Climate Change Strategy) 2012-2025<sup>106</sup> states that the national priority sectors for adapting to climate change are: **agriculture, livestock and food sovereignty; fisheries and aquaculture; health; water resources; natural ecosystems; vulnerable groups; tourism; infrastructure; and human settlements.**

<sup>106</sup> National Government of the Republic of Ecuador. (2015). Plan Nacional de Cambio Climático (National Climate Change Plan).

According to data published in Ecuador's National Climate Change Strategy, the analysis of the Segunda Comunicación Nacional sobre Cambio Climático (Second National Communication on Climate Change) states that the most likely adverse events in Ecuador include: the intensification of extreme weather events, such as those caused by the El Niño Southern Oscillation; increased sea levels; glacier retreat; decreased annual runoff; increased transmission of dengue fever and other tropical diseases; the expansion of invasive species populations in the Galapagos Islands and other sensitive ecosystems in continental Ecuador; and species extinction<sup>107</sup>.

The Implementation Plan of the First NDC 2020-2025 (IP-NDC) states that, due to its social, economic and environmental conditions, Ecuador is vulnerable to the adverse effects of climate change and is therefore threatened "by increasingly frequent and intense precipitation and temperature extremes"<sup>108</sup>.

<sup>107</sup> Republic of Ecuador. Ministry of Environment. (2012) Estrategia Nacional de Cambio Climático del Ecuador (Ecuador's National Climate Change Strategy) 2012-2025

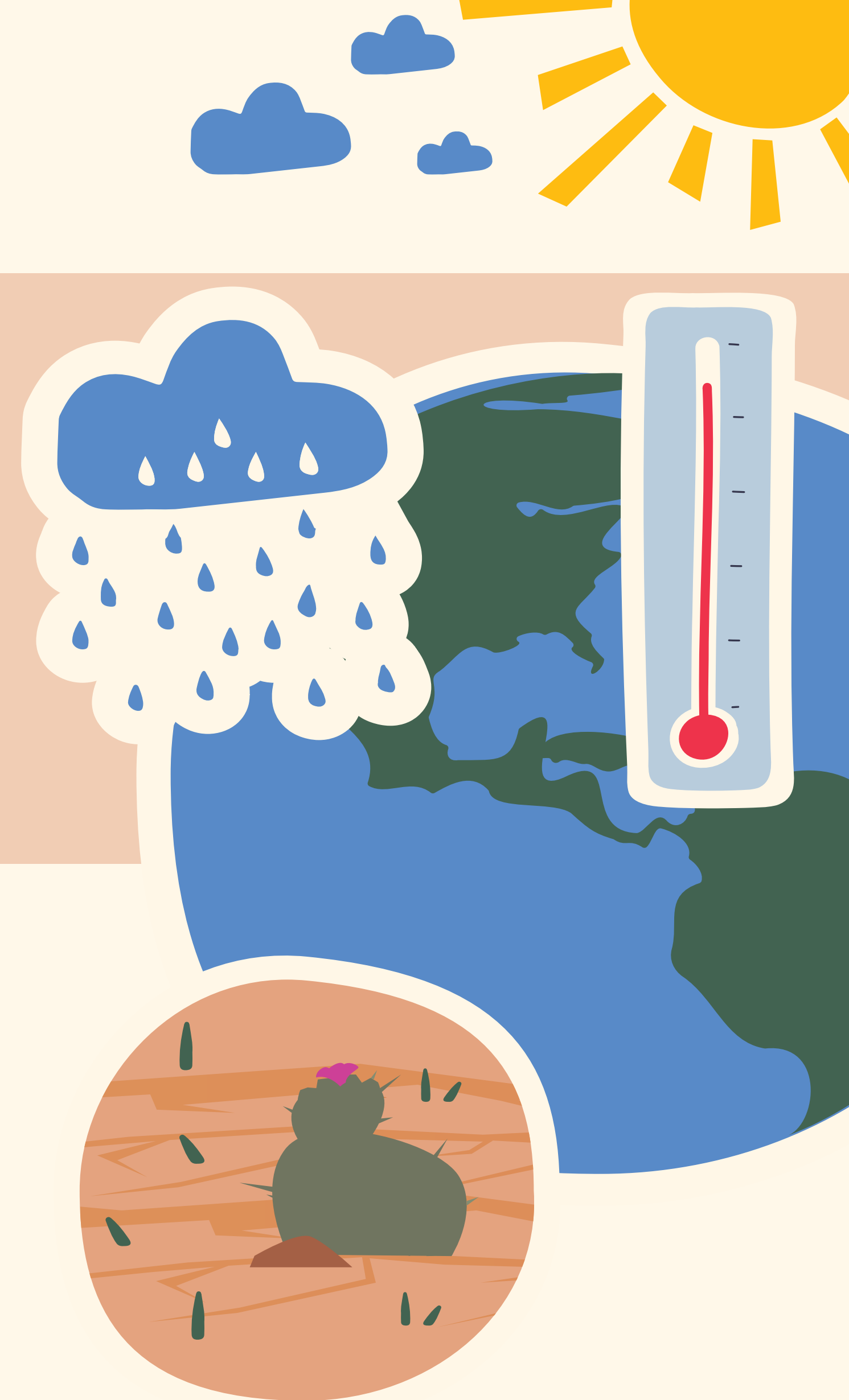
<sup>108</sup> Ministry of Environment and Water Ecuador (2019) Nationally Determined Contribution

<sup>109</sup> Ministry of Environment and Water Ecuador (2017) Tercera Comunicación Nacional (Third National Communication)

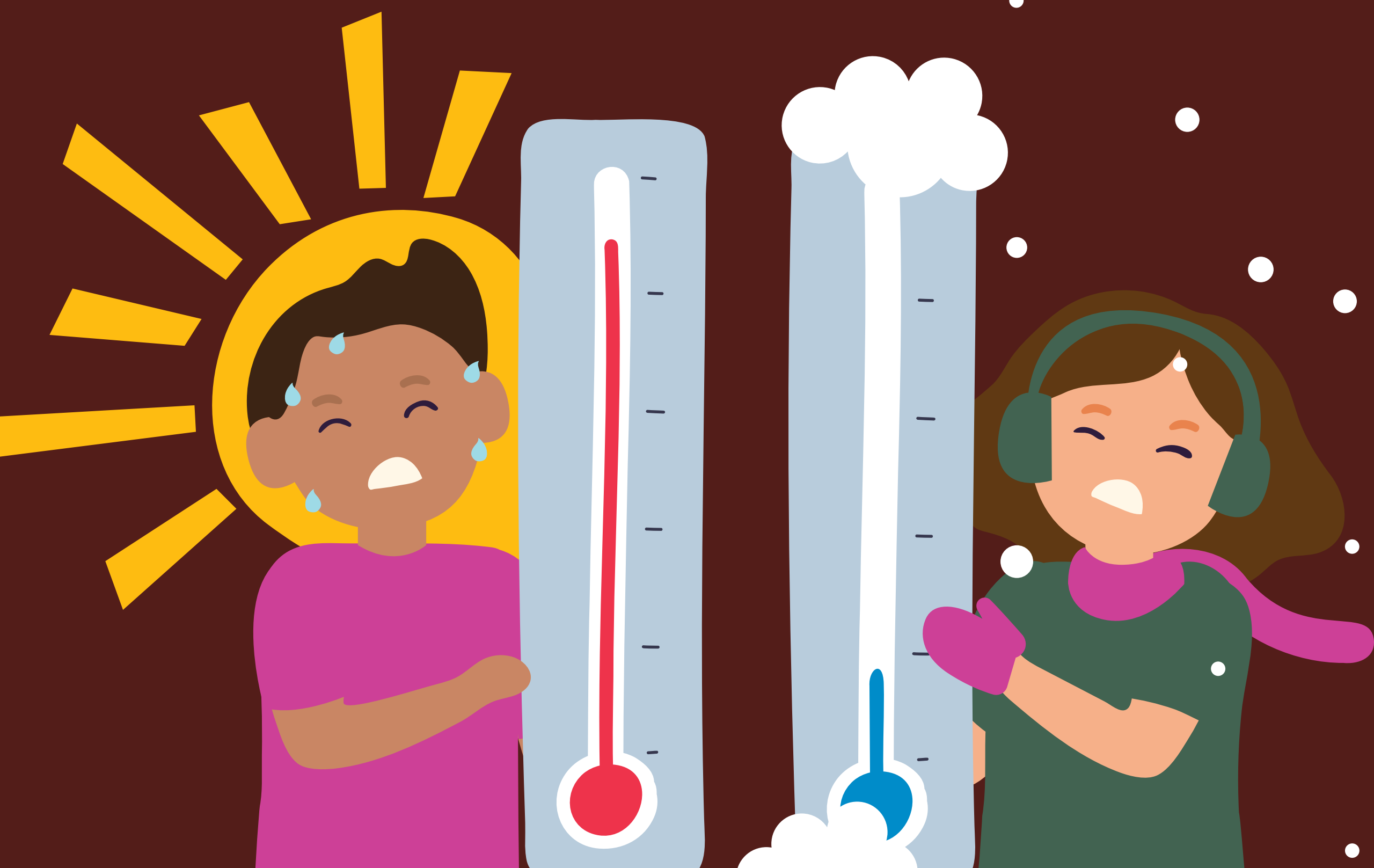
## Data from the Tercera Comunicación Nacional (Third National Communication) shows that the adverse events of climate change include:<sup>109</sup>

- Past extreme rainfall-related events would result in a flood-prone area measuring 15.9% of the national surface area, home to 49.5% of the country's total population
- Severe droughts have affected 66.7% of the country's total agricultural area and 53.7% of the total pasture area
- "Estimates of glacier coverage on the ice caps of Cotopaxi, Chimborazo, Carihuairazo and Antisana indicate that Ecuador's volcanoes have lost about 40% of their surface area over the last half century".

The Plan de Creación de Oportunidades (Opportunity Creation Plan) 2021-2025 is the ultimate guideline for the design and implementation of public policy in Ecuador. It establishes the country's priorities for the period and is aligned with the Plan de Gobierno (Government Plan) 2021-2025 and the 2030 Agenda for Sustainable Development. Each of the proposed policies refers to important issues for Ecuador and is related to one or more goals that enable continuous monitoring and evaluation of their implementation. It includes an Ecological Transition Axis, which is home to Objective 12: Encourage sustainable development models by implementing climate change adaptation and mitigation measures.



# Thematic contributions



## Mathematics:

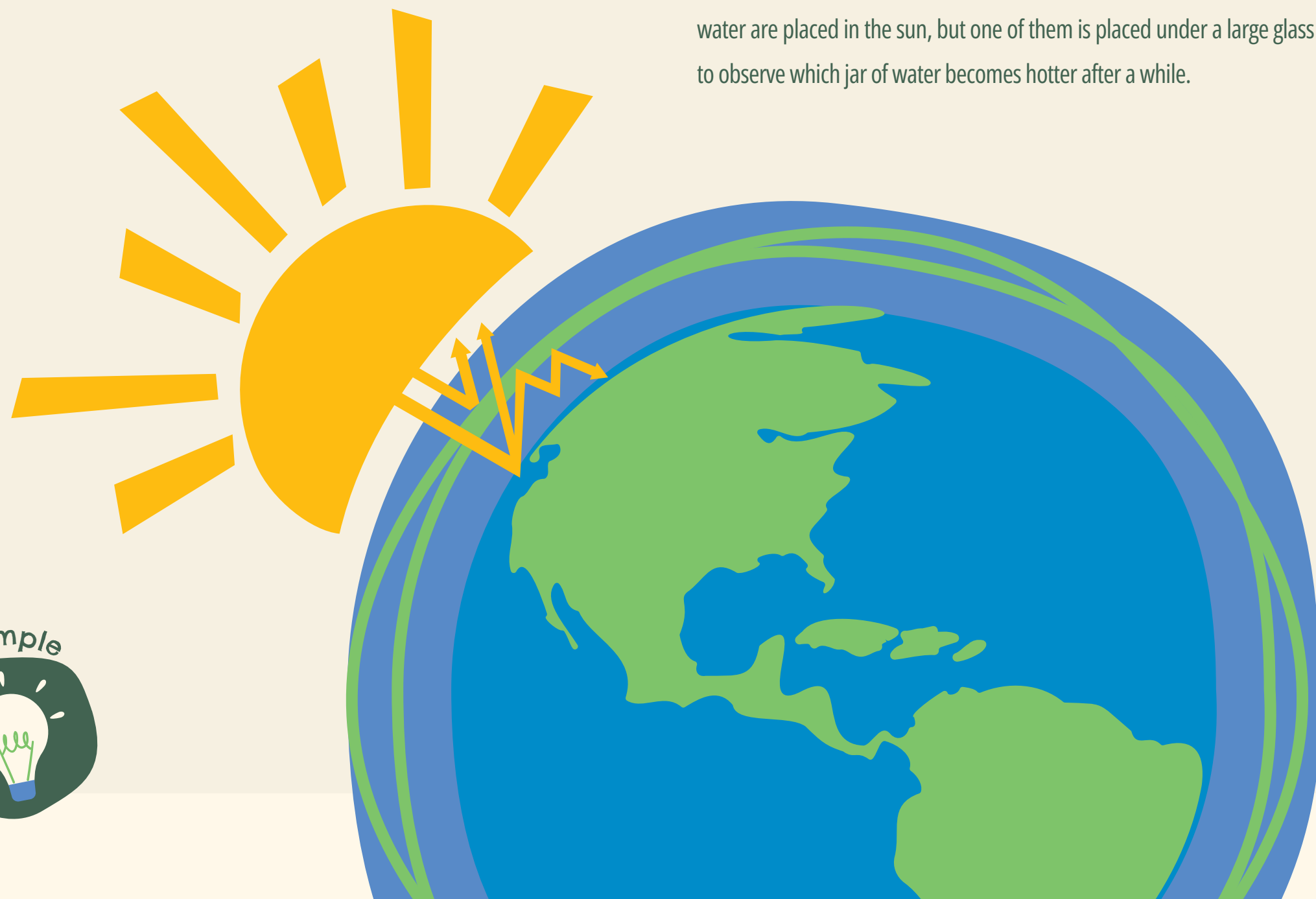
- Investigate changes in local temperatures over the last five years and help students show the results of this research in a simple graph, to allow them to draw conclusions.
  - Explain what global climate indicators are, and that their aim is to describe this phenomenon so that it can be understood through a set of numerical data referring to: surface temperature, ocean heat, increase in greenhouse gases, rises in sea level, glacier status and the extent of Arctic and Antarctic sea ice, etc.
- Calculate emissions from human activities or industries, carbon footprint calculators.**



## Natural Sciences:

- Analyse the relationship between climate change and the carbon fluxes related to the lithosphere, atmosphere, oceans, living matter, fossils, etc.
- Experiment with ecosystem-based adaptation measures.
- **Conduct a simple experiment<sup>110</sup> to explain the greenhouse effect.**

<sup>110</sup> For example, the well-known experiment in which two small glass jars of water are placed in the sun, but one of them is placed under a large glass bowl, to observe which jar of water becomes hotter after a while.



## Language and Literature:

- Explain how our planet's grave situation is also reflected in literature, by different authors around the world.
- Analyse a poem about climate change by a Latin American or Caribbean author, or from the respective country. For example, analyse the climate change poem, "Aún hay tiempo" (There is Still Time) by Brazilian author Renata Machado.
- **Book club, encourage students to read books and comics about climate change (for example, Ishmael by Daniel Quinn, Silent Spring by Rachel Carson, The Future We Choose by Christiana Figueres and Tom Rivett-Carnac, etc.)**





## Social Sciences:

- Study the relationship between human rights and a healthy environment, and climate change today.
- As a class, define the importance of participation and means of citizen activism to address the adverse effects of climate change and find alternatives.
- Analyse the perspective of indigenous people and local communities, and the need to not only to learn from them, but to involve them in decision-making on issues that directly affect them.
- **Analyse the role of climate leaders and social movements, the importance of children and young people as environmental activists.**



## The Arts:

- Explain the importance of contemporary artists in denouncing the impact of climate change and come up with various ways students can reflect on the problem in a critical and constructive way in class.
- **Highlight the groups of artists and young bloggers in various LAC countries who are forming collectives, and creating initiatives to denounce climate change through art.**





## Physical Education:

- Explain the problems caused by climate change, for example in terms of health and well-being, and indicate the importance of measures related to changing transport styles. For example, cycling is an excellent form of physical exercise.
- **Analyse the impact of climate change on certain sports. For example, skiers due to melting ice, marathon runners due to rising temperatures, etc. And the potential role of famous sportspeople in denouncing climate change (footballers, tennis players, swimmers, etc). Find out about athletes who compete to campaign for better action on climate change.**





# Potential interdisciplinary activities:

Once teachers have made their subject contributions for classroom use, the Interdisciplinary Committee meets to design and agree on a common Desirable Scenario. For example:

*“An Observatory is established to determine the degree of local knowledge and awareness of climate change, as a first step for future actions to raise awareness on the subject”.*

Once some of the details, approaches and scopes of the Scenario have been drafted and specified, organise interdisciplinary activities to celebrate and educate people in this subject at the educational centre and/or with the community.



# SCHOOL CLIMATE CHANGE OBSERVATORY

## 1. Example of an interdisciplinary activity on climate change

**Main theme and focus:** Create and implement a School Climate Change Observatory to analyse and follow-up on actions, which observes the main local and zonal situations related to climate change. This pedagogical space allows students, teaching staff and the educational community to analyse the most worrying climate situations, from the perspectives of the different subjects, and considering the experiences of families, neighbouring communities, etc. These analyses should be carried out with broad participation so that they can lead to proposals for action.

## Activity 1: Establish and launch the School Climate Change Observatory operations.

The main steps are as follows:

- 1. Location and development of the Observatory's activities:** The work will be based in the educational centre itself, but its activities will mainly be carried out in the locality, with families, in the institutions, involving different social and community groups, etc.
- 2. Internal organisation:** Once it has been agreed that the school is interested in creating a School Climate Change Observatory, a coordinator will be appointed: a teacher interested in the subject, who can dedicate some sessions to guiding students in this process.

Subsequently, students who wish to form part of this Observatory will be invited to do so, certain activities may be considered relevant for assessments in some of subjects. This must naturally be in accordance with the school's customs or approaches.

**3. Diagnosis:** Once the students have gathered to create the Observatory, the importance of studying the various issues related to the local situation is explained, and some potential actions that could be taken to improve the current situation are proposed.

**a. Topic and survey.** Conduct a study to diagnose local perceptions of climate change. To do so, draft a survey that includes a few questions, such as:

- *Do you know, or have you heard anything about climate change? Yes - No - A little*
- *Has the local climate changed in recent years? Yes - No*
- *If yes, what have you noticed?*
- *Can you name a few of the impacts of climate change? Yes - No*
- *If yes, what are they?*
- *Can you describe some of the causes of climate change? Yes - No*
- *If yes, what are they?*
- *Can you propose any activities you could do to improve the local climate change situation?*
- *Can you recommend an activity that should be done to address this challenge?*

**b. Form:** Once the group has defined all the questions, it's time to create a survey form. Each form starts with the respondent's full name, age, gender, profession, etc. This is followed by the list of questions, including the spaces for yes or no answers, and room for detailed answers to more open questions.

**c. Distribution:** Divide the survey group into segments by activity, for example, public sector employees, people working in health, business administration, shop owners, street vendors, journalists, etc. Then the final sample is designed and distributed between the students involved in the Observatory, or by activity groups, so that they can interview 10 people each.

**d. Implementation of the survey and conclusions:** Once the task has been given out, students are given two weeks to complete it in their sectors and areas. When all of the answers have been completed, hold a debriefing meeting to count the Yes-No responses and list the proposals that have emerged.

**4. Initial results:** Conclusions are discussed and expressed as an initial output giving an overview of basic degree of awareness of the issue among the people and sectors surveyed, and highlighting some of the perceptions and approaches that emerged. A stocktaking meeting is held to define the next steps, once the main approaches derived from the survey have been clarified. Highlight the degree of information or misinformation about climate change among the surveyed groups. And the most interesting alternatives they proposed.

# PARTICIPATORY WORKSHOP TO SHARE RESULTS AND COORDINATE ACTIONS

## 2. Example of an interdisciplinary activity on climate change

Once the initial results are obtained, Observatory students meet to organise: a participatory workshop to share the results of the survey and coordinate next steps. Representatives of the media, youth leaders, community organisations, associations, etc. could be invited to the workshop.

The aim of the workshop is to disseminate the results and listen to suggestions for possible joint activities to improve public awareness of climate change and the assumption of future responsibilities. Participants' contributions form the basis of an agreement for action, based on the importance of joint action between different social and economic sectors, bringing the individual to the collective. The Observatory will offer to promote and monitor this agreement.



## Evaluation of the activities carried out



The Desirable Scenario designed in the Interdisciplinary Roundtable is taken as the main reference for evaluating the activities carried out. In the case of Climate Change, this was: "An Observatory reveals the degree of local knowledge and awareness of climate change, as the first step for future actions to raise awareness on the subject." For evaluation purposes, two main objectives can therefore be considered to have been pursued:

- Find out the level of the local population's knowledge and awareness of the issue
- Plan future awareness-raising actions.

In order to evaluate the activities carried out, the group can start from four general criteria, specified through specific indicators developed in the educational centres, according to the different educational levels, ages and subjects, and based on established pedagogical approaches.

EVALUATION CRITERIA	MAIN FOCUS	CENTRAL THEME: CLIMATE CHANGE						COMMENTS AND PROPOSALS
		ACTIVITY 1. School Climate Change Observatory			ACTIVITY 2. Participatory workshop			
		LEVELS			LEVELS			
		HIGH	MEDIUM	LOW	HIGH	MEDIUM	LOW	
<b>KNOWLEDGE</b> <i>Climate change, global warming, greenhouse gases, mitigation, adaptation.</i>	<i>Extent to which understanding of key issues has been achieved</i>							
<b>PARTICIPATION, INTEREST</b> <i>Participatory design and survey application. Contributions from students and teachers</i>	<i>Level of participatory process, motivation and commitment</i>							
<b>OUTPUTS OBTAINED</b> <i>Survey forms and applied results Conclusions document</i>	<i>Achievement of visible, concrete results</i>							
<b>FOLLOW-UP PROPOSALS</b> <i>Action agreement</i>	<i>Presence of new ideas, projects and suggestions</i>							

# Rationale for the Guidelines

**Environmental education is transversal. As an effective and transformative tool, it is key to the fulfillment of the Sustainable Development Goals.** The Environmental Education Guide is presented as part of the 2021- 2022 Work Plan and at the request of the member countries. The guide contains ten thematic environmental booklets designed to be reference material for primary school teachers and environmental trainers to support the inclusion of environmental themes and concepts in the formal and informal education sector. They were developed to generate collective reflection that helps people identify ways to solve environmental challenges.

**The Environmental Training Network** is an intergovernmental platform, coordinated by the United Nations Environment Program (UNEP) and comprising eighteen environmental education focal points within the Ministries of Environment. The network aims to strengthen and share knowledge and experiences in environmental education in the region, and defines itself as a community that promotes action, cooperation, and the exchange of experiences and knowledge in environmental education, both face-to-face and online.

The Network reports to the Forum of Ministers of Environment of Latin America and the Caribbean. The Environmental Education Decision was adopted in Cartagena, Colombia, 2016, consolidating regional commitment to environmental education as a key element to transform values, behaviours and visions. During the XXI Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean (Buenos Aires, Argentina, 2018), in the Declaration of Buenos Aires, the countries agreed: “To strengthen environmental education as a cross-cutting issue and provide more support to the Environmental Training Network of Latin America and the Caribbean to promote cooperation in the exchange of experiences among the countries of the region, generating synergies with other initiatives and Rationale for the Guidelines networks that promote environmental education”. It also responds to the UN Decade on Ecosystem Restoration: Action 3. Take ecosystem restoration into schools with the inclusion of a notebook focused on Ecosystem Restoration in Latin America.

