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Justiça Climática

NOSS Education for Climate Justice

Volume 1

The Climate Detective:

workbook

Escola de Artes, Ciências e Humanidades

UK Research and Innovation

Climate-U

INCLINE

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Presentation:

This workbook is part of The **Climate Detective Educational Kit**, which is a result of the **"Participatory Research Project in Action: Education for Climate Justice in the Ribeira Valley"** developed by NOSS EACH USP in collaboration with the international initiative Climate-U, implemented in Brazil in partnership with INCLINE USP.

The main goal is to support schools becoming a strategic epicentre in promoting climate justice, offering support, and inspiring teachers to disseminate knowledge for climate action, and ultimately empowering students to become key agents for change in their communities.

The Climate Detective's methodological strategy is based on Paulo Freire's dialogic education, meaningful learning, and Citizen Science. It includes participatory activities and individual reflection.

We aim to inspire the implementation of activities that value traditional knowledge, explore different languages, promote problem-solving, contribute to critical reflection, and foster student protagonism.

The exercises use the territory as a reference and starting point for developing an educational approach aimed at reducing contextual vulnerabilities, co-creating knowledge, and empowering students to play a leading role in climate justice.

The Climate Detective was implemented in two rural elementary and high schools in the municipalities of Eldorado and Iporanga in the Ribeira Valley, southwest of São Paulo. In both cases, multiple contextual vulnerabilities and territorial disparities were identified.

The results were positive! We observed the engagement of students and teachers, students' interest in extracurricular activities, mapping of neighbourhood problems and vulnerabilities, and students' protagonism in promoting knowledge for climate action in local political arenas.

São Paulo, Brazil, 2024 april.

Sylmara Gonçalvez Dias
Ana Beatriz Nestlehner Cardoso de Almeida

"The action of the CLIMATE DETECTIVE in **the Climate (in)justice Project** sparks youth involvement, as students engage in learning through scientific research, environmental observation, and shared experiences, promoting social interaction, interdisciplinary knowledge, and citizenship."

Teacher at Escola Estadual
de Ensino Integral PEI
Professora Maria das Dores
Vianna
(Itapeúna, Eldorado, Ribeira Valley
Brazil)
December 2023

Summary

Represent (or present) you, "The Climate Detective"!

Name:

School:

Series:

Neighbourhood:

Address:

Welcome to the **Climate Detective workbook!**

Now you can unravel the mysteries of the Climate in your community!

Understanding territorial dynamics is the first step to developing innovative solutions that respect and value our history and culture!

All knowledge is important, and we are all able to contribute to a better world.

Don't be afraid! There's no right or wrong here!

This exercise seeks reflection, critical thinking, observation, and creativity!

The main goal of this workbook is to reflect and experiment. Don't worry about the calligraphy, drawing, or spelling perfection.

We hope that you enjoy this journal. So, we can develop science together, think about sustainability, and act for the Climate!

TEAM NOSS EDU ClIMA

Unto the Prof. Dr. Sylmara Gonçalves Dias, Prof. Dr. Pedro Torres, Ana Beatriz Nestlehner, Amanda Cseh, Isabela Cavaco, Aline Gomes, Julia Valle.

This workbook is part of the project "Participatory Research in Action: Education for Climate Justice in the Ribeira Valley," developed by the Research Centre for Organisations, Society and Sustainability of the School of Arts, Sciences and Humanities of the University of São Paulo (NOSS EACH USP), under the institutional coordination of the Centre for Research Support in Climate Change (INCLINE USP), Climate-U of the University College of London (UCL), funded by UKRI - UK Research and Innovation.

know more here

Ask your parents or guardians to authorise your participation by responding to the following term:

Free and Informed Consent Form

I_____ responsible for_____, authorise his/her participation and the use of his/her image in the Project "Participatory Research in Action: Education for climatic justice", developed by the Research Center in Organizations, Society and Sustainability (NOSS) of the School of Arts Sciences and Humanities of the University of São Paulo (EACH-USP).

I am aware that the goal of the project is to deepen the understanding of the cultural, socioeconomic and environmental dynamics of the school community of

_____

_____

Located at _____

Participation is voluntary and can be withdrawn at any time and without prejudice.

Location_____,(date)_____202_

_____

signature

Team Contact NOSS EDU CLIMA: **nosseduclima@gmail.com**

Can we find out more about you?

1. Age:

2. What is your race, tribe, or ethnicity?

_____

3. How many brothers do you have?

4. Do you have access to a mobile phone? ( ) yes ( ) no

5. Do you have access to a mobile network? () Yes ( ) no

6. Do you have electricity? ( ) yes ( ) no

If so, which system? () solar () traditional power supply

7. Do you work? () yes ( ) no

If so, what do you do? _____

8. How do you go to school?

( ) walking ( ) school's transportation ( ) car

( ) motorcycle ( ) bicycle

9. Who are you going to school with?

() alone ( ) with siblings ( ) with my parents

( ) with friends

10. How long does it take you to get to school?

11. What do you like most about studying?

12. What do you like most about doing in your spare time?

13. What is your family's main economic activity?

Understanding Our Environment

Draw your home and highlight the most frequent natural events and the problems they usually cause.

Events:

( )Strom ( )Overheating( )Hail( )Overcooling
( ) Heals ( )Thunder and Lightning ( )Fires ( )Floods
( )Drought of rivers

Problems:
( )Lack of electricity ( )Lack of water supply
( )Road network disruption ( )No internet connectivity
( )Landfall ( )Flooding inside the house
( )Losing plantations ( )Losing livestock

Not all types of rains, winds, or floods are harmful. Rains are fundamental for agriculture; some floods help nourish the soil, while a cool breeze contributes to fresh air when it is too hot. In addition, these natural phenomena, such as rain and winds, can also improve playing conditions.

Which natural phenomena do you like most (rain, winds, or river floods)? What do you like to do when any of these events happen?

What kind of floods do you know? Which one do you like best? Which one are you most afraid of?

Design your neighbourhood and locate your home. Now, indicate where you consider important, such as places you like to play with or usually go.

For example, 1. My house, 2. Health Center,
3. Schools, 4. Churches, 5. Community Center,
6. Internet access, 7. Landline, 8. Football field.

Describe what happens to the listed points when it rains too much; there are strong winds, floods, or hail:

1. Streets and roads:

2. Power grid:

3. Communication skills:

4. Internet cable, mobile, and landline:

5. Ferries and bridges:

6. Water supply:

7. Solid waste:

8. Plantations:

Hunting Memories

Seek testimonials from your family members in order to understand how disasters and natural calamities most impacted your family.

Which of these events most affects your family (you can choose more than one):

( ) Floods( )Storms( ) Overheating( ) Strong winds

( ) Overcooling ( ) Heals ( )Thunder and Lighting ( ) Fire

What was the most significant loss your family has ever had due to one of these events?

Now let's **try to record** a **video (approximately 5 minutes)** of someone older in the family who can talk about the experience of having gone through the great floods or another natural calamity.

Ask the following questions:

1. Name, age, and neighbourhood.

2. Do you authorise me to share your image and this video in the Research Project "Education for Climate Justice"?

3. Have the floods hit your house?

4. How was it going through the floods?

5. What is the difference between them?

6. Which was more challenging, and what did help the most?

7. What could improve in the event of a calamity like this?

The frequency of natural phenomena marks the four (4) seasons - Spring, Summer, Autumn, and Winter. The colours of the forest, the rivers, and the sky change, as do the smells and sensations.

Search your memory for your favourite season, describe, draw, or make a collage to express what you consider most significant.

Pollution, uncontrolled and irregular waste disposal, excessive consumption of plastic, extensive consumption of fossil fuels (petroleum derivatives such as gasoline, diesel oil, kerosene, and coal), fire in the forest, burning of household waste, changing land use for large-scale agriculture, and soil contamination due to the continuous use of pesticides and fertilisers, all affect the environment. **All of these contribute to Climate Change.**

Climate Change, in turn, influences the dynamics of nature and increases the frequency and intensity of natural phenomena, such as rains, winds, droughts, and heat waves.

The rise of these events can profoundly impact our communities, causing irreparable losses and even deaths.

1) In your opinion, which human activity most impacts the environment in our Ribeira Valley region?

2) Which human activities do you consider most harmful near your home?

1.

2.

3.

4.

3) How could we improve this situation?

Protecting the environment is essential to ensure healthy **living conditions**, as well as to promote the balance of ecosystems and preserve biodiversity.

The Atlantic Forest and Amazon Forest, in addition to their rich biodiversity, are biomes and types of forests fundamental to preventing global warming and climate change.

These forests can capture fossil fuel gases (CO2 from oil and coal) and store them at their roots. Therefore, there is a global concern for its preservation.

The National System of Conservation Units (SNUC in Portuguese), law 9985/2000, was created to establish Protected Areas (PA) to ensure the conservation and preservation of nature.

The SNUC defines what is and which are the Protected Areas, their objectives, and what can and cannot be done in them.

There are two main groups of Protected Areas:

PA for Sustainable USE, such as APA's Quilombo Medio Ribeira, where communities are allowed to live inside.

PA for Integral Protection, such as Natural Parks (PETAR, Devil's Cave, and Intervals), in which community settlements are forbidden.

In areas of Integral Protection, such as parks, the Brazilian legislation established that traditional agriculture (using fire), livelihood, and domestic animals (farms, dogs, and cats) impact biodiversity. Therefore, it is necessary to remove families from these areas.

To protect nature, the Government of São Paulo set up various parks of integral protection in the Ribeira Valley, in areas that overlapped several rural, historical, and traditional community settlements.

While the government tried to protect nature, implementing those parks impacted these communities drastically due to imposed lifestyle shifts. A lot of them migrated in search of better conditions for subsistence.

Find out if the establishment of the parks has impacted your family and community. Try recording audio or videos from elders. Discover what it was like before the natural park implementation and what has changed in the following points:

1) How have the natural parks changed your family's lifestyle?

2) Have the natural parks impacted your family's subsistence?

3) Has the relationship between the people in your community changed?

4) What happened to the family size and community population?

5) What was better before, and what's better now?

6) Is there anything about the park that makes you feel insecure?

Hunting troubles and reading satellite images!

Now, we will find out how to identify problems in our neighbourhood from on-site observations. First, we are going to locate them in a satellite image.

The goal is to learn how to read maps and Satellite images to identify flood zones, safe routes, and places that can give support in case of natural disasters and calamities.

1. In the maps, identify your home and other equipment, such as hospitals, schools, churches, etc. Use the word's first letter for the legend and paint it yellow.

H: Home
S: School
HC: Health Center
S: Shed
M: Market
C: Churches
CC: Community Center
S: Sports hall
FF: Football Field
T: Transporte

2. If you live near or within a park, draw a dashed (green) line - - - - - - - where the park borders.

3 Draw a blue line where severe flooding might occur.

4. In the event of a calamity caused by major floods, draw in red the safe routes for people to escape in case your community is affected.

5. Lastly, paint the safe places that can host the displaced people and their belongings in red.

Example:

CAPTION

Park Boundary

Flood (blue)

Escape Routes (red)

Safe places to shelter (red)

Equipment

Now, you will need to walk around your neighbourhood and seek to identify the problems on the map. Pay attention to your route so you do not get lost. Mark and establish a starting point and landmarks you want to pass through during your walk, for example, your home, the river, the Church, etc.

Type the letter P + a number on the map to identify problems.

If possible, take pictures of them. Photos are essential to remember the details that we observed on the site.

PROBLEM CAPTION

p1: Lack of street lighting.

P2: road network with problems

P3: Waste disposal.

p4: fire in the forest.

p5: Burning of household waste.

P6: Need for street drainage.

p7: open tap.

p8: Bridge or ferry has broken.

p9:

P10:

P11:

P12:

Glue your map here after you are done.

In the event of disasters, our problems get worse. Usually, to find the solution to a problem, we need to think the other way around. "Hole in the street" would be solved with "hole in the street covered."

Now ponder: How could we solve the problems you identified?

P1:

P2:

P3:

P4:

P5:

P6:

P7:

P8:

P9:

P10:

P11

P12:

Triggering the Public Prosecutor's Office to solve our problems!

It often takes a long time to fix the road, restore the power supply, and have the internet and landline work again.

In Brazil, the quilombos[1] communities of Ivaporunduva, Galvão, and São Pedro were days without a bridge and a ferry after a flood, as both were damaged.

The traditional community of Bombas in Iporanga has no roads, and sick people must be carried on their shoulders to access health services in emergencies.

In Iporanga, the population is clamouring to guarantee their right to access information and participation in the public bid for the Natural Park- PETAR concession.

Even though the government must guarantee citizens' constitutional rights, these rights often become neglected.

To pressure governments, we can request action via prosecutors. Any citizen can activate the Public Prosecutor's Office, which should supervise governments demanding clarification sums and measures.

Choose an issue that is never solved in your community and write a letter to the Public Prosecutor's Office using the following template:

[1] Quilombo are traditional communities from black people slavery background.

_____,_____
Place date

To the Public Prosecutor's Office,

Your Excellency, Sir/Mann,_____

I,_____
id,_____, ask respectfully your support in providing means to solve the following problem

Problem:

Justification (how long the problem has happened and the consequences of this problem):

I thank you for your attention and collaboration.

Best regards,

_____
Name/signature

Building scenarios and interpreting social roles

Now that you have identified your community problems, thought about their solutions, and called the Public Prosecutor's Office, **let's think about how we can act if the worst happens.**

Draw or describe the worst situation you, your family, and your community could find yourself in if there were **an environmental disaster** such as floods, fires, etc.

In the case of disasters and calamities, people cannot react in the same way. This difference can be understood by analysing that population's social, economic, and environmental vulnerabilities.

Living conditions, gender, location, communication skills, knowledge, age, and financial resources influence individuals or the community's capability to act.

In the case of calamities, some are more impacted than others.

Considering the worst situation you have designed or described, consider the following:

1) Who would be most impacted in your community or family?

2) What could you do to help your community and family?

3) What could you do if you were a community leader?

4) What could you do if you were the city's mayor?

Reflect on the differences in the acting power in each position.

1. You as a citizen:

2. You as a community leader:

3. You, as the city's mayor

Now, draw and/or describe the future you want for your community.

Feedback

We have reached the final of the "Climate Detective" exercise! Finally, we would like to know what you think of the activities.

Have you participated in all of our face-to-face activities?

( ) Yes ( ) No

What did you like the most?

What did you like the least?

Are there any other observations you would like to make about the exercise?

We are very grateful that we walked together on this adventure!

TEAM NOSS

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