

# Climate Change and Its Social Impact

## ----- Environmental Education Tools for Climate Action -----

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References



## 1. Introduction

### Climate challenge in Mexico City

#### Inadequate climate education

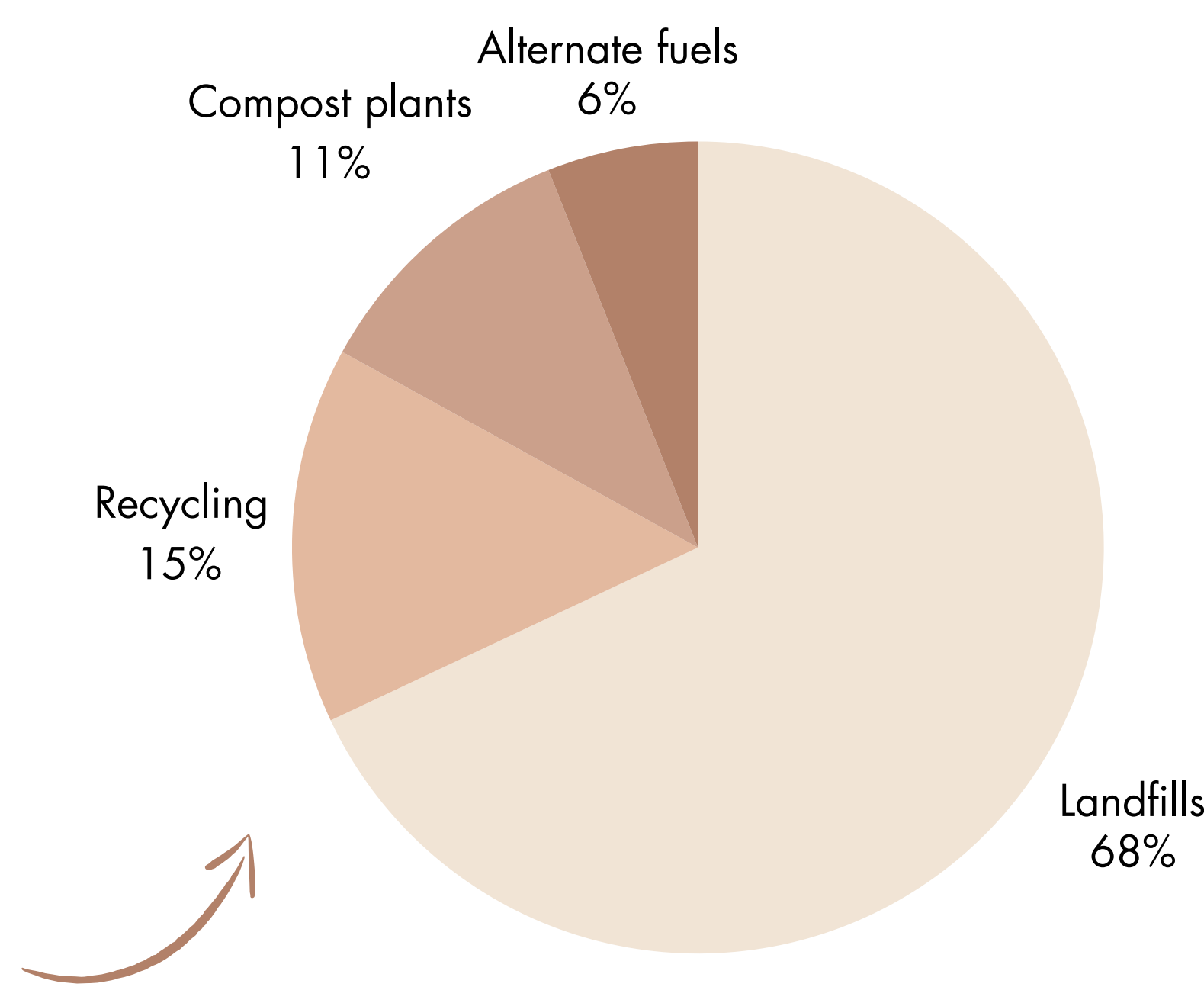
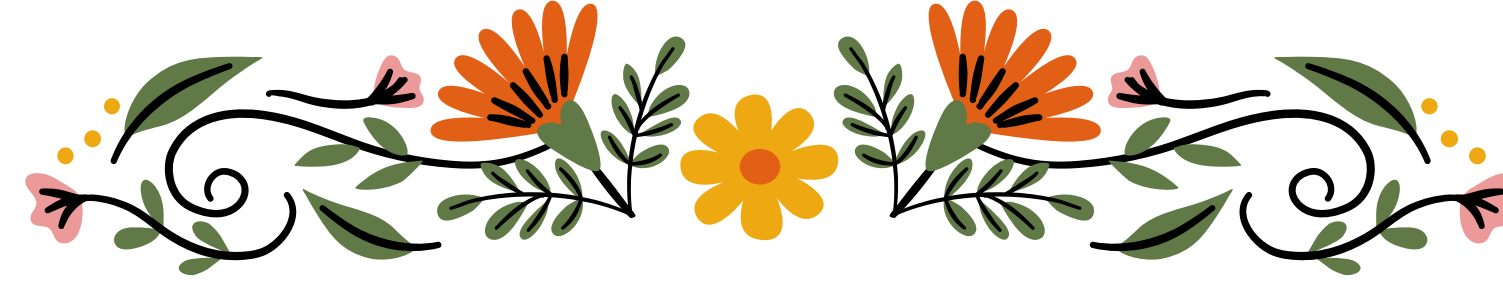
- Only **13.2%** of Mexican children aged **7-9 years old** had heard of all words in a list of **10 environmental words** (e.g. pollution, recycling, global warming), and only **1.3%** knew their meaning (Barraza & Walford, 2002)

#### Loss of native plant knowledge

- Modernisation leads to an increased use of exotic species and **reduced understanding of native plants**, adversely affecting the conservation of Mexico's biological diversity and cultural knowledge (Benz et al., 2000)

#### Insufficient sustainable solid waste management

- Mexico City is a populated city with intense economic, social and cultural activity, generating a large amount of solid waste (Gobierno de la Ciudad de México, n.d.)
- Only **32%** of solid waste is **recycled or reused**, and the remaining **68%** is sent to **landfills** (Secretaría del Medio Ambiente, n.d.)



### About Huerto Roma Verde (HRV)

- A **community centre and biosocial laboratory** that promotes collaboration to address the climate emergency through **biosocial projects and services**
- HRV, together with over 100 partner organisations, launched the **Pacto con la Tierra** (Earth Pact) in 2025 – an agreement to promote and model a set of practices to help **regenerate our surroundings**, socially and environmentally



## 2. Objective

To combat the lack of climate knowledge by developing educational materials to **empower sustainable behaviours and ecological awareness**.



## 3. Methods

### Our team

- 4 Laidlaw scholars, 3 project managers at HRV, 3 biologists at HRV, 7 local volunteers
- Had **weekly meetings** at HRV
- Design & communication platform: Canva, WhatsApp and Google Drive



### Design thinking methodology

- Empathise:** Had an **organisation visit** in the first week to learn about HRV's current work and challenges
- Define:** Analysed the **core challenge** – lack of climate knowledge, and focused on **addressing the challenge**
- Ideate:** Generated a list of **possible solutions** (e.g. educational posters, information signs, videos), and **finalised** the formats of the **deliverables** after conducting meetings with the organisation
- Prototype:** Drafted **designs and content** for each of our deliverables
- Evaluate:** Get **feedback** from the project managers and biologists in HRV and local volunteers to **refine our designs** and make them more specific to Mexico's context

## 4. Results

### a) A 16–page 10Rs booklet

- Educational booklet on the 10Rs (e.g. reduce, reuse, repair, recycle, regenerate, replicate) for children
- Printed **60 copies** in Spanish & English
- Distributed to children at the summer camp at HRV

To encourage sustainable behaviours to address the climate emergency



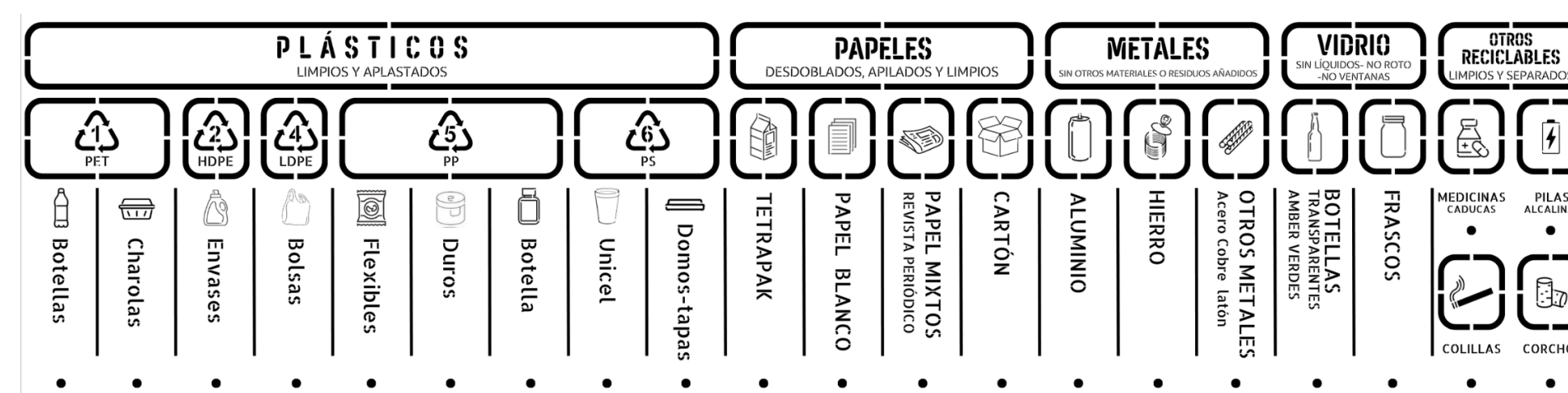
### b) 13 information signs on native plants at HRV

To increase knowledge and awareness



### c) A stencil design for a waste separation tool

To encourage the replication of waste sorting practices at home, at school, or in the workspace



### d) A 3–hour sustainability workshop

- Target: **40 children** (3-13 years old) at the summer camp at HRV
- Content: **Sustainability carousel of 10 activities**, each focusing on one aspect of the 10Rs

To lead children in putting into practice the concepts of the 10Rs through simple activities

## 5. Reflections

### a) A journey from abstract ideas to tangible impact

- Transformed the **abstract concepts** of the 10Rs and native plant knowledge into **usable tools**

Make the concepts accessible and actionable to children and people of all ages

### b) An achievement accomplished by collaboration

- Set clear project objectives through meetings with **project managers**
- Received feedback from **project managers, biologists and volunteers**
- Worked with other **scholars** to refine and improve our designs



### c) Personal growth as a changemaker

- From being an **observer** of HRV's environment to an **active participant** who created educational resources with **lasting impact**

Empower everyone to reflect upon our roles in contributing to solving the alarming climate crisis