

## 2050: A New World - lessons learned from a policy-making board game for climate change engagement



Laura Bentley\*<sup>1</sup>, Savia Palate\*<sup>2</sup>, Pamela Anahi Ribone\*<sup>3</sup>, Elizabeth M Tennyson\*<sup>4</sup>

<sup>1</sup>Department of Plant Sciences, University of Cambridge, Cambridge, UK. <sup>2</sup>Department of Architecture, University of Cambridge, Cambridge, UK. <sup>3</sup>Sainsbury Laboratory Cambridge University, Cambridge, UK. <sup>4</sup>Cavendish Laboratory, Department of Physics, University of Cambridge, Cambridge, UK

## Abstract

2050: A New World is a policy-making board game wherein players balance city planning strategies with climate change mitigation, in an attempt to provide a sustainable future for their region. Players make challenging decisions with limited resources and consider necessary trade-offs required for climate resilience. The game encourages creative thinking about sustainability, and emphasises the trade-offs and consequences involved in combating climate change. Social variables, such as inequality, population density, food security and aversion to technological solutions, are all embedded within the gameplay.

## Game play

The game is played in four rounds, where each round represents a decade of policy development (i.e. 2020, 2030, 2040, and 2050).



At the core of the game, players create policies to strategically reallocate the city's resources towards achieving their international sustainability commitments. Each city has their own sustainability goals, to be fulfilled in 2030 and 2050. After players have decided their policies for the decade, the city will suffer a climate change driven disaster that threatens to set back their progress.

REAL-WORLD ELEMENTS INCORPORATED IN THE GAME

CITY LOCATION AND CLIMATE CHANGE EFFECT

Podding, poor as

CITY LOCATION AND CLIMATE CHANGE EFFECT

London

Podding, poor as

CITY LOCATION AND CLIMATE CHANGE EFFECT

Podding, poor as

CONDON

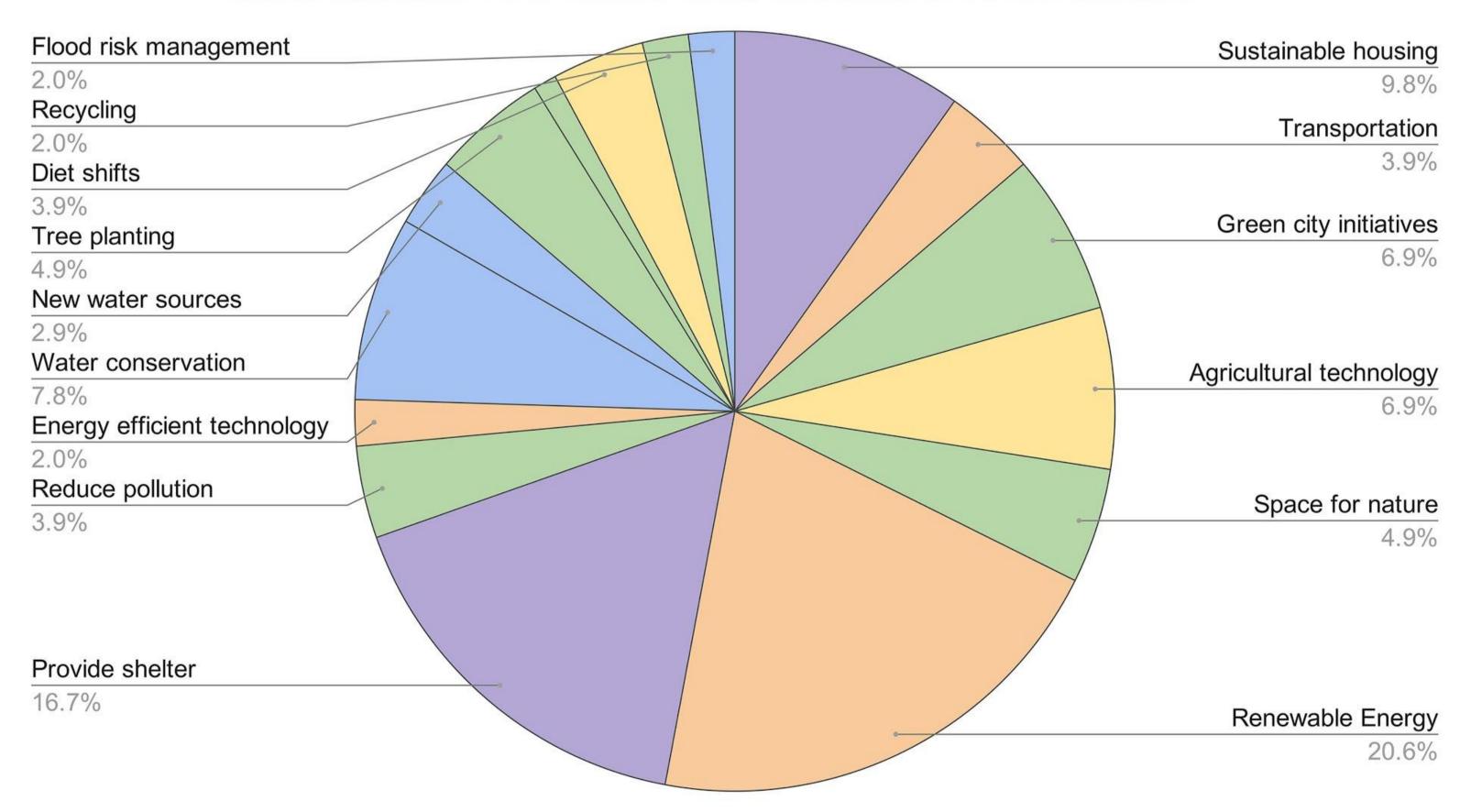
Cape Town

Dubai

Tructurated temperatura

Tructurated te





**Acknowledgments**: We would like to thank: the Rising Stars public engagement course organizers, Sarah Cruise, Alicia Lloyd and Ariel Retik and the Cambridge Festival of Ideas 2019 organizational staff, in particular, Dr Lucinda Spokes. We further are grateful for Jonathan Lippman, Cambridge's Head of the Academic Centre Administration for International Summer Programmes within the Institute of Continuing Education for his encouragement and enthusiasm.

## Results and Discussion

The game was presented for the first time in front of three different cohorts at the Cambridge Festival of Ideas 2019 hosted by the University of Cambridge. The session invited people ages 10+, and included families, teenagers, adults and senior citizens. One of the strengths of 2050: A new world as a public outreach tool is that it allows players to judge the effectiveness of their own policies, and the subsequent impact, through debate and discourse.

The policies often reflected traditional means of development, particularly when the motivation was linked to relieving acute pressures on the population.

Teams acknowledged the potential for plants to contribute to sustainable development:

- 6.9% increasing the amount of vegetation in cities for reducing pollution, food production and supporting biodiversity.
- new agricultural technologies made up 6.9% of policies, mostly irrigation or greenhouses.
- Genetically modified crops and hydroponic agriculture were mentioned rarely and were more contentious.



Please visit: https://2050anewworldgame.wixsite.com/home

Contact information: Laura Bentley (lb562@cam.ac.uk), Savia Palate (sp861@cam.ac.uk), Pamela Ribone (par56@cam.ac.uk), Elizabeth Tennyson (et446@cam.ac.uk)