CLIMATE CRISIS

THE GAME!

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GAME MANUAL

OVERVIEW

Objective: Students form teams representing a country and play a card game to attempt to get carbon neutral by 2050. Cards include policy cards, energy cards and disaster cards.

Each round of the game represents 5 years in real life. Each round consists of three phases, in which players will have to think critically, discuss and trade with each other in order to achieve carbon neutrality by 2050 (end of sixth round).

MATERIALS

Deck of 64 "policies" playing cards (green, grey, blue, red)

Deck of 16 Chance cards (purple)

One six-sided dice

Optional: tokens to represent money, or you can keep this tallied on board

Card color types:

- Grey: Energy policy
- Green: Environmental policies
- Blue: Industrial polices
- Red: Economic policies

GAMEPLAY

Students form groups and play as an EU country. Groups of 2-3 are ideal.

Assign a student or teacher to keep time, score, and accounting on the board.

To make more complex you can assign (varying) budgets to each team

Shuffle Policies cards into a pile and Chance cards (purple) into a separate pile

PHASE 1 – PREPARATIONS

First, each team draws cards from the "Policies" decks until they have six (6) cards on their hand. The teams cannot reveal their cards until they are played and placed on the table.

Then, each team chooses up to four (4) cards from their hand to play during their turn.

To play a card, each player must pay the cost of said card (in euros) as indicated by number in the top right corner. Each played card has an effect for the rest of

the game. The effects of the cards in play are activated in the beginning of phase 2.

PHASE 2 – FOREIGN POLICIES

The players will discuss the actions they have taken and discuss further actions they plan to take next round. Players also can buy and sell energy from each other during this phase. To do this, players must agree on a transaction and trade resources before the end of the round.

PHASE 3 – CHANCE!

Due to changes in climate, there is a chance that natural disasters will occur at the end of each round.

At the beginning of phase 3, each playing country will roll a six-sided die (d6). If a player rolls a three or less, they draw a "Chance" card from the "Chance" deck in the table. Natural disasters can be prevented or mitigated with the use some specific "Policy cards". 1 mitigating card may be played per team after the roll of the dice.

When piles are exhausted they may be reshuffled into the deck.

Tally on board the total money left for each team after each round, as well as the net CO2 and the year.

Repeat phases 1-3 for a total of 6 rounds (or until carbon neutrality is reached)

At end the goal is that the entire 'world' (all teams) have achieved carbon neutrality (zero carbon emissions)

MODIFICATIONS:

To increase the difficulty, you may enact measures and demand certain nations divest from certain energy and industry types by a certain time; i.e. no more coal to be played [by certain countries] after round 3.

The game consists of six rounds corresponding to 5 years of real time. Therefore end date goal for CO_2 neutrality may be adjusted from 2050 based on when the game is played in real life or rounds may represent shorter amounts of time.

Economics: You may give each country an allotted budget to simulate real world economics. "Richer" countries have more budget and "poorer" countries less. You may also have countries pay or get paid by the EU per round to gain funds or lose funds.

CURRICULUM LINKS

IB MYP: The game can be used as a precursor to discussing sustainability in an integrated science or humanities (criterion D) course and students can discuss the political, social, ethical, medical or environmental factors related to the solutions that arise during the game.

Going further:

An important going further question involves the residence time of CO_2 in the atmosphere – around 100-120 years. So even if the countries stop producing CO_2 today, the carbon dioxide emitted until today will remain in the atmosphere unless it is absorbed, sequestered and or captured in some way. Students can brainstorm passive and active, natural and manmade ways to absorb, capture, and store CO_2.

CARD LAYOUT

Background color of the policy cards indicates the theme