

The Solutions Epoch:

A Climate Solutions Game

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Game board

6 country tokens

28 Solution Deed Cards

12 Climate Chaos cards

12 Co-op Collaboration cards

32 bushes

12 trees

2 dice

Money pack

Turn counter

Game Description & Overview

The Solutions Epoch is a collaborative game where players represent countries trying to fight against the climate crisis. The goal of the game is to contribute to a Climate Mitigation Fund and prevent tipping points from occurring. Like in the real world, with its current geopolitical climate, collaboration between entities is needed to create real change. For example, if one country enacts policies to adopt renewable energy sources, while their neighboring countries increase usage of fossil fuels, the net positive effect is diminished.

Additionally, like in the real world, collaboration is difficult and not guaranteed.

Players/countries often act in their self-interests or take actions to protect themselves, at the cost of others. In this game, a player can defect and try to win the game on their own by acquiring enough wealth and assets to protect themselves, instead of contributing to a Climate Mitigation Fund that helps everyone.

As the game progresses, climate tipping points start to occur if the Climate Mitigation Fund threshold has not been met. This makes the game more difficult and its progression slower, representing the consequences climate change may have.

Rules (Adapted from Monopoly)

OBJECT...The object of the game is to collaborate with other players to prevent climate change by contributing to a climate mitigation fund. Alternatively, a player can defect, prioritizing their self-interests and gather enough capital to ensure the security of their country, through buying, renting, and selling property.

PREPARATION...Place the board on a table and put the Climate Chaos and Co-op Collaboration cards face-down on their allotted spaces on the board. Each player chooses one country token to represent them on their travels around the board. Each player is given \$1500 divided as follows: 2 each of \$500's, \$100's and \$50's; 6-\$20's; 5 each of \$10's, \$5's and \$1's. All remaining money and other equipment go to the Bank.

BANKER...Select as Banker a player who will also make a good Auctioneer. If the Banker plays in the game, they must keep their personal funds separate from those of the Bank. When more than five persons play, the Banker may elect to act only as Banker and Auctioneer.

THE BANK...Besides the Bank's money, the Bank holds the Title Deed cards and houses and hotels prior to purchase and use by the players. The Bank pays salaries and bonuses. It sells and auctions properties and hands out their proper Solution Deed cards; it sells bushes and trees to the players and loans money when required on cash-outs. The Bank collects all taxes, fines, loans and interest, and the price of all solutions which it sells and auctions. The Bank never "goes broke". If the Bank runs out of money it may issue as much more as may be needed by merely writing on any ordinary paper.

THE PLAY... Starting with the Banker, each player in turn throws the dice. The player with the highest total starts the play. They place their token on the corner marked "GO", throw the 2 dice and move their token in the direction of the arrow the number of spaces indicated by the dice. After they have completed their play, the turn to play passes to the left. The tokens remain on the spaces occupied and proceed from that point on the player's next turn. Two or more tokens may rest on the same space at the same time. According to the space which his token reaches, a player may be entitled to buy real estate or other properties, -or be obliged to pay rent, pay taxes, draw a Climate Chaos or Co-op Collaboration card, "Go to Climate Court", etc. If a player throws doubles they move their token as usual the sum of the two dice and is subject to any privileges or penalties pertaining to the space on which he lands. Retaining the dice, they throw again and move their token as before. If a player throws doubles three times in succession, they move their

token immediately to the space marked "In Climate Court" (see CLIMATE COURT). At the end of their turn, a player may decide to contribute to the Climate Mitigation Fund, transferring money from their possession to the Bank's holdings. After one round of play (every player has one turn), the turn counter is increased by one.

TIPPING POINTS...After a certain number of turns, if the Climate Mitigation Fund has not been fulfilled, tipping points are reached, each associated with a consequence that hampers the progression of the game.

- After 15 turns, tipping point 1: reach 1.5°C warming
 - Doubles send you straight to jail
- After 20 turns, tipping point 2: reach 2°C warming
 - Do not collect money when you pass GO
- After 25 turns, tipping point 3: reach 3°C warming AMOC collapse, sea level rise, massive cooling of Europe
 - Only roll 1 dice per turn
- After 30 turns, total collapse: reach 4°C warming
 - Game immediately ends

"GO"...Each time a player's token lands on or passes over "GO", whether by throwing the dice or by drawing a card, the Banker pays them \$200 salary. However, \$200 is paid only once each time around the board. If a player, passing "GO" on the throw of the dice, lands 2 spaces beyond it on "Co-op Cooperation", or 7 spaces beyond it on "Climate Chaos", and draws the card "Advance to GO", they collect \$200 for passing "GO" the first time and another \$200 for reaching it the second time by instructions on the card.

BUYING SOLUTIONS...Whenever a player lands on an unowned solution they may buy that property from the Bank at its printed price. They receive the Title Deed card showing ownership and place it face-up in front of them. If they do not wish to buy the property it is sold at auction by the Banker to the highest bidder. The buyer pays to the Bank the amount of the bid in cash and receives the Title Deed card for that property. Any player, including the one who declined the option of buying it at the printed price, may bid. Bidding may start at any price.

PAYING RENT...When a player lands on property owned by another player the owner collects rent from them in accordance with the list printed on the Solution Deed card applying to it. If the property is mortgaged, no rent can be collected. When a property is mortgaged its Solution Deed card is placed face-down in front of the owner. It is an advantage to hold all the Solution Deeds in a color-group because the owner may then charge double rent for unimproved properties in that color-group. This rule applies to unmortgaged properties even if another property in that color-group is mortgaged. It is even more of an advantage to have bushes or trees on properties

because rents are much higher than for unimproved properties. The owner may not collect their rent if they fail to ask for it before the second player following throws the dice.

"CLIMATE CHAOS" and "CO-OP COLLABORATION"...When a player lands on either of these spaces they take the top card from the deck indicated, follow the instructions and return the card face-down to the bottom of the deck. The "Get Out of Climate Court Free" card is held until used and then returned to the bottom of the deck. If the player who draws it does not wish to use it they may sell it, at any time, to another player at a price agreeable to both.

"INCOME TAX"...When a player lands on "Income Tax" they have two options: they may estimate their tax at \$200 and pay the Bank, or they may pay 10% of their total worth to the Bank. Their total worth is all their cash on hand, printed prices of mortgaged and unmortgaged properties and cost price of all bushes/trees they own. The player must decide which option they will take before they add up their total worth.

CLIMATE COURT...A player lands in Climate Court when. . . (1.) their token lands on the space marked "Go to Jail"; (2.) they draw a card marked "Go to Climate Court"; (3.) they throw doubles three times in succession. When a player is sent to Climate Court they cannot collect a \$200 salary in that move since, regardless of where their token is on the board, they must move it directly into Climate Court. A player's turn ends when they are sent to Climate Court. If a player is not "sent to Climate Court" but in the ordinary course of play lands on that space, they are "Just Visiting", incur no penalty, and move ahead in the usual manner on his next turn. A player gets out of Climate Court by... (1.) throwing doubles on any of their next three turns. If they succeed in doing this they immediately move forward the number of spaces shown by their doubles throw. Even though they have thrown doubles they do not take another turn; (2.) using the "Get Out of Climate Court Free" card if they have it; (3.) purchasing the "Get Out of Climate Court Free" card from another player and playing it; (4.) paying a fine of \$50 before they roll the dice on either of their next two turns. If the player does not throw doubles by his third turn they must pay the \$50 fine. They then get out of Climate Court and immediately move forward the number of spaces shown by their throw. Even though they are in Climate Court, a player may buy or sell property, buy or sell houses and hotels and collect rents.

NATIONAL HOLIDAY...A player landing on this space does not receive any money, property or reward of any kind. This is just a "free" resting place.

BUSHES...When a player owns all the properties in a color group they may buy bushes from the Bank and erect them on those properties. If they buy one tree, they may put it on any one of those properties. The next tree they buy must be erected on one of the unimproved properties of this or any other complete color-group he may own. The price they must pay the Bank for each tree is shown on their Title Deed card for the property on which they erect the tree. The owner

can still collect double rent from an opponent who lands on the unimproved properties of their complete color-group. Following the above rules, a player may buy and erect at any time as many bushes as their judgment and financial standing will allow. But they must grow evenly (i.e.: they cannot erect more than one tree on any one property of any color-group until they have built one tree on every property of that group. They may then begin on the second row of trees, and so on, up to a limit of four bushes to a property. For example, they cannot grow three bushes on one property if they have only one tree on another property of that group.). As a player grows evenly, they must also break down evenly if they sell bushes back to the Bank (SEE SELLING PROPERTY).

TREES...When a player has four trees on each property of a complete color-group, they may buy a tree grove from the Bank and erect it on any property of that color-group. They return the four trees from that property to the Bank and pay the price for the tree grove as shown on the Solution Deed card. Only one tree grove may be erected on any one property.

PLANT SHORTAGE...When the Bank has no plants to sell, players wishing to build must wait for some player to turn back or to sell their plants to the Bank before building. If there are a limited number of bushes and trees available, and two or more players wish to buy more than the Bank has, the bushes or trees must be sold at auction to the highest bidder.

SELLING PROPERTY... Unimproved properties, Ecological Endeavors and utilities (but not trees) may be sold to any player as a private transaction for any amount that the owner can get. However, no property can be sold to another player if bushes/trees are standing on any properties of that color-group. Any bushes/trees so located must be sold back to the Bank before the owner can sell any property of that color-group. Bushes and trees may be sold back to the Bank at any time for one-half the price paid for them. All plants on one color-group must be sold one by one, evenly, in reverse of the manner in which they were erected. All plants on one color-group may be sold at once. Or they may be sold one tree at a time (one tree equals five bushes), evenly, in reverse of the manner in which they were erected.

MORTGAGES...Unimproved properties can be mortgaged through the Bank at any time. Before an improved property can be mortgaged all the plants on all the properties of its color-group must be sold back to the Bank at half price. The mortgage value is printed on each Solution Deed card. No rent can be collected on mortgaged properties or utilities, but rent can be collected on unmortgaged properties in the same group. In order to lift the mortgage, the owner must pay the Bank the amount of the mortgage plus 10% interest. When all the properties of a color-group are no longer mortgaged the owner may begin to buy back plants at full price. The player who mortgages property retains possession of it and no other player may secure it by lifting the mortgage from the Bank. However, the owner may sell this mortgaged property to another player at any agreed price. The new owner may lift the mortgage at once, if they wish, by paying off the

mortgage plus 10% interest to the Bank. If they do not lift the mortgage at once they must pay the Bank 10% interest when they buy the property and if they lift the mortgage later they must pay an additional 10% interest as well as the amount of the mortgage to the Bank.

BANKRUPTCY...A player is bankrupt when they owe more than they can pay either to another player or to the Bank. If their debt is to another player, they must turn over to that player all that they have of value and retire from the game. In making this settlement, if they own bushes or trees, they must return these to the Bank in exchange for money to the extent of one-half the amount paid for them and this cash is given to the creditor. If they have mortgaged property they also turn this property over to their creditor but the new owner must at once pay the Bank the amount of interest on the loan, which is 10% of the value of the property. After the new owner does this, they may, at their option, pay the principal or hold the property until some later turn at which time they may lift the mortgage. If they hold property in this way until a later turn, they must pay the interest again when they lift the mortgage. Should a player owe the Bank, instead of another player, more than they can pay (because of taxes or penalties) even by selling their buildings and mortgaging property, they must turn over all their assets to the Bank. In this case, the Bank immediately sells by auction all property so taken, except buildings. A bankrupt player must immediately retire from the game.

WINNING...The game ends immediately when the collaborative players or individual defector pay the threshold amount to the Climate Mitigation Fund. The contribution thresholds are as follows:

- Defector (1 player): \$12,000
- 2 players: \$16,000
- 3 players: \$20,000
- 4 players: \$25,000
- 5 players: \$30,000
- 6 players: \$35,000

If every player has had 30 turns (turn counter reaches 30), the game immediately ends, and players have lost the game.

MISCELLANEOUS...Money can only be loaned to a player by the Bank and then only by mortgaging property. No player may borrow from or lend money to another player.

Note From the Creators

The concept of climate solutions is complex and wrought with controversy. Even the idea of focusing on climate solutions may be misguided and inefficient; however, it is a reality of the current landscape. Many individual actors are conceiving of and implementing various solutions to address the climate crisis. While these so-called solutions may or may not have their intended

effects—and may or may not create meaningful differences in solving climate change—they represent real-world attempts to confront a pressing issue facing humanity. While we ourselves may not agree with all the solutions proposed in this game, it represents the complex landscape of current geopolitics and climate change mitigation efforts. The solutions included in the game represent a wide range of climate efforts considered in the current geopolitical reality.

While this game is based on Monopoly, we have made significant changes, both to the superficial aspects of the game, like the names of the cards, as well as fundamental changes to the running and winning of the game. For example, the Solution Deeds are all shades of green to represent the greenwashing that often occurs in the proposal of climate solutions. Additionally, the Country Tokens are flags of six of the world's biggest greenhouse gas emitters, representing major players on the global climate stage.

We hope you enjoy and can reflect on the effectiveness of solutionism in addressing climate change.

Card Descriptions

Sage Green 1

Category: Addressing Historical Injustice

Card name: Indigenous Knowledge

Card description: Heeding expertise and suggestions of local indigenous people. Addresses issues of the land and local geography while respecting the sovereignty of native peoples. Builds on centuries of indigenous knowledge to sustain local ecosystems.

Sage Green 2

Category: Addressing Historical Injustice

Card name: Anti-colonialism

Card description: Permits spending capital on addressing the legacy of colonialism, including the inherently unsustainable and resource-exhausting practices. Spends capital on indigenous and marginalized communities subject to historically unsustainable practices and environmental harms, such as pollution. Creates support through jobs, better living spaces, and infrastructure. Spending addresses both human and environmental abuses, such as environmental racism, ends polluting practices, and reorganizes systems into sustainably-working initiatives.

Olive Green 1

Category: Sustainable Development Goals

Card name: Affordable and Clean Energy

Card description: Permits spending to develop more diverse sources of renewable energy at a wider scale in order to lower costs for consumers. Sources include solar, wind, geothermal and

nuclear. Also enables the enactment of energy solutions, such as renewable microgrids and the ability for a consumer to sell energy back to the grid at beneficial rates.

Olive Green 2

Category: Sustainable Development Goals

Card name: Sustainable Cities and Communities

Card description: Allows for the implementation of urban greenspaces, multiuse building planning, robust and consistent public transportation, safer walking paths, community gardens, and food co-ops. Develops opportunities for youth to have more active roles in shaping community experiences and the sustainable infrastructures, such as the aforementioned ones. Also incorporates passive cooling techniques for buildings such as natural ventilation, solar shading, and cool roofs.

Olive Green 3

Category: Sustainable Development Goals

Card name: Climate Action

Card description: Similar to the affordable and clean energy card, enables large scale electrification and the complete phase out of fossil fuels. Enables easier collaboration between nations to achieve decarbonization goals through economic policy, energy policy and natural resources conservation.

Neon Green 1

Category: Degrowth

Card name: Upending Consumerism

Card description: Aims for degrowth of the nation through focusing on enforcing the regulation of durable consumer goods, right to repair laws for the consumer, and focusing on ending colonial-commercial economic policies of outsourcing industries. Cheap products, advertised in new ways annually, forcing consumers to rely on monopolies, and industrial practices of relying on ‘cheap labor,’ are growth consequences that are ultimately unsustainable and cause great depletion and destruction of the environment.

Neon Green 2

Category: Degrowth

Card name: Promoting Well-being

Card description: Enables focusing on the promotion of the well-being of citizens over constant pushing of the economy’s increase, which is not always sustainable or reflective of a high quality of life, or even reflective of socioeconomic stability, equality, and equity. The promotion of human-well-being is intimately connected to the environment. Sustainable economic policy can allow resources to be used in a matter that better reflects true carrying capacity.

Neon Green 3

Category: Degrowth

Card name: Reducing Material-Energy Use

Card description: Switches from energy-intensive materials and technology such as “gas-guzzling” vehicles and petroleum-based plastics, and invests in building thorough and efficient technology that complements existing infrastructure and practices. This phases in renewables and clean technology and can potentially eliminate environmentally degrading ones, such as AI (artificial intelligence).

Forest Green 1

Category: Techno-optimism

Card name: Carbon Capture

Card description: Enables the use of capital on carbon-capture technology, which pulls greenhouse gas emissions out of the atmosphere, cycling back in regular, breathing air. Removing carbon from the air helps avoid climate tipping points or revert to earlier levels of atmospheric carbon.

Forest Green 2

Category: Techno-optimism

Card name: Battery and Transmission

Card description: Enables capital to be used on research and development on the efficiency of energy storage in batteries and on the transfer of energy sources and electricity. The usage of better battery and transmission lines aids sustainable policies as resource usage is minimized from a material standing point and made as efficient as possible by minimizing “waste” products.

Forest Green 3

Category: Techno-optimism

Card name: Vertical Farming

Card description: Enables capital to be spent on research and development of vertical farms, reducing hectares in agricultural land use, returning land back to the environment, and rewilding. The use of vertical farming makes it possible to feed the human population in a sustainable manner through efficient technology and minimizes land use by substituting vertical infrastructure, which allows land to be reimbursed to the environment and leads to biodiversity and emissions reductions.

Celadon Green 1

Category: Environmental Reports

Card name: Millennium Ecosystem Assessment

Card description: Utilizes the knowledge gained from the Millenium Ecosystem Assessment. Relies on reevaluating systems-science of human-urban spaces and industry to heed the four

pillars of ecosystem services: provisioning, regulating, cultural, and supporting. Supports the pillars of ecosystem services that regulate environmental use, provision existing resources, and retain cultural traditions and practices that support human well-being and solidarity. Hopes to lead to security, basic material for good life, health, good social relations, freedom of choice, and action.

Celadon Green 2

Category: Environmental Reports

Card name: Brundtland Commission

Card description: Allows knowledge gained from the Brundtland Commission's *Our Common Future* report to be applied to the embodiment of sustainability, reconceptualizing it into addressing present needs to take from existing ecosystem resources without compromising future generational use. Reconceptualizes the use of sustainability within Western, Euro-centric ideas of inexhaustive material resources allowing for endless consumption, and aims to avoid climate tipping points.

Celadon Green 3

Category: Environmental Reports

Card name: IPBES Report

Card description: Utilizes the mega-meta-analysis of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment Report on Biodiversity and Ecosystem Services to provide a key list and timeline on the need for biodiversity. Identifies global climate and environmental issues using over 15,000 sources and urges practices of achieving sustainability through emphasizing what products ecosystem services provide.

Hunter Green 1

Category: Individual Changes

Card name: Decreased consumption

Card description: Allows government policy and advocacy to urge citizens to decrease individual consumption and material usage, including in sectors like technology (like buying new electronics yearly), fashion, energy, water, and food.

Hunter Green 2

Category: Individual Changes

Card name: Corporation Boycotts

Card description: Involves holding companies accountable and ceasing purchases from companies responsible for environmental abuses. Social advocacy is meant to engage consumers in the fight against climate change by forcing corporations to self-enact and self-enforce sustainable policy solutions without constant need for regulatory oversight.

Hunter Green 3

Category: Individual Changes

Card name: Dietary Changes

Card description: Encourages transitioning from environmentally polluting and resource exhausting dietary practices such as mass meat and dairy consumption to a plant-based diet or vegan lifestyle. Changing to a sustainable diet practices sustainability and helps stray from climate tipping points by eliminating agricultural emissions.

Grass Green 1

Category: Working within the Capitalocene

Card name: Humanistic cities

Card description: Develops new or renovates existing cities in humanistic design, aimed for net neutrality by focusing on human health and quality of life, as well as environmental appreciation and safeguarding. Promotes public transportation, pedestrian-friendly or pedestrian-centric infrastructure and walkways, green spaces, trails, wildlife reserves and parks, natural shade and tree canopy, and increased energy density. The development of or renovation into humanistic cities eliminates mass vehicle emissions, captures carbon from green spaces, increases mental well-being and health, and provides shelter to wildlife in dense urban areas, maintaining biodiversity.

Grass Green 2

Category: Working within the Capitalocene

Card name: Sustainable urbanism

Card description: Develops or remodels urban areas to be more sustainable by transitioning to green, sustainable infrastructure, net neutrality, and sustainable utilizations of resources for lasting generational use. Overall, focuses on carbon footprint reduction, sustainable living and infrastructure, utilization of resources, and full environmental integration into cities. Separate from humanistic cities, sustainable urbanism focuses on a broader application of sustainable infrastructure and environmental safe-guarding in or around urban centers. Conversely, humanistic cities focus mostly on reducing emissions and keeping small environmental spaces for human practicality and human-centric well-being and health.

Grass Green 3

Category: Working within the Capitalocene

Card name: Material Flow Analysis

Card description: Addresses the flow of materials and resources in economic systems and works to ensure their effectiveness and increased efficiency in a sustainable manner. Attempts to decrease pollution and energy usage from the harvesting, refining, transporting, and recycling of materials.

Chartreuse Green 1

Category: Global Funds

Card name: IMF

Card description: Allots to take climate development and sustainability action plan funds from the International Monetary Fund (IMF). Aims to meet sustainable policy goals through international financial assistance.

Chartreuse Green 2

Category: Global Funds

Card name: World Bank

Card description: Enables taking climate development and sustainability action plan loans from the World Bank. Aims to meet sustainable policy goals through international financial assistance.

Ecological Endeavor 1

Card name: Compliance Biodiversity

Description: Enables the enactment of policies that adhere to the Kunming Montreal Global Biodiversity Framework. Works in conjunction with ecological restoration and enables robust monitoring of native and endangered species to ensure the frameworks 30 by 30 goal (conserve and manage 30% or more of the world's terrestrial, inland water, coastal and marine areas by 2030).

Ecological Endeavor 2

Card name: Ecological Restoration

Description: Permits spending for restoring previously disturbed areas, with an emphasis on bringing back native plants and utilizing indigenous knowledge to restore the land. Enables spending to revitalize native ecosystem education with an emphasis on getting community youth involved in restoration efforts.

Ecological Endeavor 3

Card name: Urban Greenspaces

Description: Permits spending and implementation of community greenspaces, with an emphasis on planting native plants and providing adequate shaded areas in order to allow youth and elders of the community to enjoy the greenspace without worrying about severe urban heat island effects.

Ecological Endeavor 4

Card name: National Park Preservation

Description: Enables policies to preserve large swaths of ecosystems as National Parks in order to keep the land pristine and free from urban development. Policies enact park reservation

systems to keep visitor numbers controlled in an effort to prevent damage, as has been seen at Yosemite National Park.

Utility 1

Card name: Renewable Energy

Description: Allots funds to be used towards developing renewable energy infrastructure, specifically mass solar farms, as well as applicable geographic- and climate-specific energy strategies, for clean, net-zero energy capability. The development of renewable energy prevents the continual addition of greenhouse gasses into the atmosphere.

Utility 2

Card name: Water Conservation

Description: Enables funds to be directed to build infrastructure for water cycling and conservation: gathering storm water, protecting water resources from evaporation, cycling sanitation and agricultural water to be recycled and reused, and channelling non-drinkable water to be utilized for sanitation and applicable industrial purposes. The infrastructure allows for safeguarding of water resources without exhaustion and conserves the precious resource to sustainable levels for continual generational use.

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Game board



6 country tokens



28 Solution Deed Cards

**SOLUTION DEED
INDIGENOUS
KNOWLEDGE**

RENT \$60

With 1 Bush	\$100
With 2 Bush	\$540
With 3 Bush	\$1340
With 4 Bush	\$1640
With Tree	\$1940

Mortgage Value \$40

Bushes Cost \$100
Trees Cost \$150
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
ANTI-COLONIALISM**

RENT \$60

With 1 Bush	\$100
With 2 Bush	\$40
With 3 Bush	\$1340
With 4 Bush	\$1640
With Tree	\$1940

Mortgage Value \$30

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
AFFORDABLE &
CLEAN ENERGY**

RENT \$100

With 1 Bush	\$140
With 2 Bush	\$560
With 3 Bush	\$1360
With 4 Bush	\$1660
With Tree	\$1960

Mortgage Value \$80

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
SUSTAINABLE CITIES &
COMMUNITIES**

RENT \$110

With 1 Bush	\$140
With 2 Bush	\$560
With 3 Bush	\$1360
With 4 Bush	\$1660
With Tree	\$1960

Mortgage Value \$80

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
CLIMATE ACTION**

RENT \$110

With 1 Bush	\$140
With 2 Bush	\$560
With 3 Bush	\$1360
With 4 Bush	\$1660
With Tree	\$1960

Mortgage Value \$80

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
UPENDING CONSUMERISM**

RENT \$140

With 1 Bush	\$180
With 2 Bush	\$580
With 3 Bush	\$1380
With 4 Bush	\$1680
With Tree	\$1980

Mortgage Value \$90

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
PROMOTING WELL-BEING**

RENT \$140

With 1 Bush	\$180
With 2 Bush	\$580
With 3 Bush	\$1380
With 4 Bush	\$1680
With Tree	\$1980

Mortgage Value \$90

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
REDUCING
MATERIAL-ENERGY USE**

RENT \$160

With 1 Bush	\$180
With 2 Bush	\$580
With 3 Bush	\$1380
With 4 Bush	\$1680
With Tree	\$1980

Mortgage Value \$90

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
CARBON CAPTURE**

RENT \$180

With 1 Bush	\$220
With 2 Bush	\$620
With 3 Bush	\$1420
With 4 Bush	\$1720
With Tree	\$2020

Mortgage Value \$110

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
BATTERY & TRANSMISSION**

RENT \$180

With 1 Bush	\$220
With 2 Bush	\$620
With 3 Bush	\$1420
With 4 Bush	\$1720
With Tree	\$2020

Mortgage Value \$110

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
VERTICAL FARMING**

RENT \$200

With 1 Bush	\$240
With 2 Bush	\$640
With 3 Bush	\$1440
With 4 Bush	\$1740
With Tree	\$2040

Mortgage Value \$110

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
MILLENNIUM ECOSYSTEM
ASSESSMENT**

RENT \$220

With 1 Bush	\$260
With 2 Bush	\$640
With 3 Bush	\$1440
With 4 Bush	\$1740
With Tree	\$2040

Mortgage Value \$120

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
BRUNDTLAND COMMISSION:
OUR COMMON FUTURE**

RENT \$220

With 1 Bush	\$260
With 2 Bush	\$640
With 3 Bush	\$1440
With 4 Bush	\$1740
With Tree	\$2040

Mortgage Value \$120

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
IPBES REPORT**

RENT \$240

With 1 Bush	\$260
With 2 Bush	\$640
With 3 Bush	\$1440
With 4 Bush	\$1740
With Tree	\$2040

Mortgage Value \$120

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
DECREASED CONSUMPTION**

RENT \$260

With 1 Bush	\$280
With 2 Bush	\$660
With 3 Bush	\$1460
With 4 Bush	\$1700
With Tree	\$2060

Mortgage Value \$130

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
CORPORATION BOYCOTTS**

RENT \$260

With 1 Bush	\$280
With 2 Bush	\$660
With 3 Bush	\$1460
With 4 Bush	\$1700
With Tree	\$2060

Mortgage Value \$130

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
DIETARY CHANGES**

RENT \$280

With 1 Bush	\$280
With 2 Bush	\$660
With 3 Bush	\$1460
With 4 Bush	\$1700
With Tree	\$2060

Mortgage Value \$130

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
HUMANISTIC CITIES**

RENT \$300

With 1 Bush	\$280
With 2 Bush	\$680
With 3 Bush	\$1480
With 4 Bush	\$1780
With Tree	\$2080

Mortgage Value \$180

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
SUSTAINABLE URBANISM**

RENT \$300

With 1 Bush	\$280
With 2 Bush	\$680
With 3 Bush	\$1480
With 4 Bush	\$1780
With Tree	\$2080

Mortgage Value \$180

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

**SOLUTION DEED
MATERIAL FLOW ANALYSIS**

RENT \$320

With 1 Bush	\$280
With 2 Bush	\$680
With 3 Bush	\$1480
With 4 Bush	\$1780
With Tree	\$2080

Mortgage Value \$180

Bushes Cost \$120
Trees Cost \$200
plus 4 bushes

If a players owns all sites of any color group,
the rent is doubled on unimproved sites in that group.

SOLUTION DEED
IMF

RENT \$350

With 1 Bush	\$320
With 2 Bush	\$720
With 3 Bush	\$1520
With 4 Bush	\$1820
With Tree	\$2120

Mortgage Value \$200

Bushes Cost \$120

Trees Cost \$200

plus 4 bushes

If a player owns all sites of any color group, the rent is doubled on unimproved sites in that group.

SOLUTION DEED
WORLD BANK

RENT \$400

With 1 Bush	\$320
With 2 Bush	\$720
With 3 Bush	\$1520
With 4 Bush	\$1820
With Tree	\$2120

Mortgage Value \$200

Bushes Cost \$120

Trees Cost \$200

plus 4 bushes

If a player owns all sites of any color group, the rent is doubled on unimproved sites in that group.

SOLUTION DEED
COMPLIANCE
BIODIVERSITY



Rent	\$25
2 Ecological Endeavors:	\$50
3 Ecological Endeavors:	\$100
4 Ecological Endeavors:	\$200

SOLUTION DEED
ECOLOGICAL
RESTORATION



Rent	\$25
2 Ecological Endeavors:	\$50
3 Ecological Endeavors:	\$100
4 Ecological Endeavors:	\$200

SOLUTION DEED
URBAN
GREENSPACES



Rent	\$25
2 Ecological Endeavors:	\$50
3 Ecological Endeavors:	\$100
4 Ecological Endeavors:	\$200

SOLUTION DEED
NATIONAL PARK
PRESERVATION



Rent	\$25
2 Ecological Endeavors:	\$50
3 Ecological Endeavors:	\$100
4 Ecological Endeavors:	\$200

SOLUTION DEED
RENEWABLE ENERGY



If one utility is owned, rent is 4 times the amount shown on the dice.

If both utilities are owned, rent is 10 times the amount shown on the dice.

Mortgage \$150

SOLUTION DEED
WATER CONSERVATION



If one utility is owned, rent is 4 times the amount shown on the dice.

If both utilities are owned, rent is 10 times the amount shown on the dice.

Mortgage \$150

12 Climate Chaos cards

CLIMATE CHAOS

Advance to the nearest utility.

If unowned you may buy it from the bank. If owned, roll dice and pay the owner a total of ten times the amount rolled.

CLIMATE CHAOS

Carbon tax.

Pay \$40.

CLIMATE CHAOS

You receive a rebate from installation of solar panels.

Collect \$30.

CLIMATE CHAOS

You are elected chairman of the community utilities council.

Pay each player \$50.

CLIMATE CHAOS

Peak energy demand usage fee.

Pay \$50.

CLIMATE CHAOS

Your environmental legislation is passed.

Proceed to the nearest Ecological Endeavor. If unowned you may buy it from the bank. If owned, pay the owner double the rent.

CLIMATE CHAOS

You are found to have legislation allowing overfishing.

Go to Climate Court. Go directly to Climate Court. Do not pass GO. Do not collect \$200.

CLIMATE CHAOS

You over-rely on fossil fuel subsidies.

Go to Climate Court. Go directly to Climate Court. Do not pass GO. Do not collect \$200.

CLIMATE CHAOS

Your degrowth policy is voted on.

Roll the dice. If the amount rolled is even, collect \$200. If the amount rolled is odd, pay each player \$20.

CLIMATE CHAOS

You borrow money from the World Bank.

Advance to the World Bank. If unowned you may buy it from the bank. If owned, pay the owner double the rent.

CLIMATE CHAOS

A wildfire decimates your territory.

Pay \$50 per tree and \$100 per tree grove you own.

CLIMATE CHAOS

Methane leak detected at your fossil fuel infrastructure.

Go to Climate Court. Go directly to Climate Court. Do not pass GO. Do not collect \$200.

12 Co-op Collaboration cards

CO-OP COLLABORATION

Your compostable cutlery petition gets
1000 signatures.

Collect \$100.

CO-OP COLLABORATION

You earn first place at a sustainable
architecture competition.

Collect \$75.

CO-OP COLLABORATION

You volunteer at a local ecological
restoration event.

Collect \$20.

CO-OP COLLABORATION

You sell electricity back to the grid at
peak demand.

Collect \$40.

CO-OP COLLABORATION

Get out of Climate Court free.

Keep this card until needed or trade it.

CO-OP COLLABORATION

You participate in a beach clean up.

Collect \$50.

CO-OP COLLABORATION

You visit an urban greenspace.

Collect \$20.

CO-OP COLLABORATION

You decrease the concrete cover in your
city.

Collect \$100.

**CO-OP
COLLABORATION**

You prevent an endangered species from going extinct.

Collect \$75.

**CO-OP
COLLABORATION**

You create a solar farm.

Collect \$100.

**CO-OP
COLLABORATION**

Your country hosts a successful international climate summit.

Collect \$60 from each player.

**CO-OP
COLLABORATION**

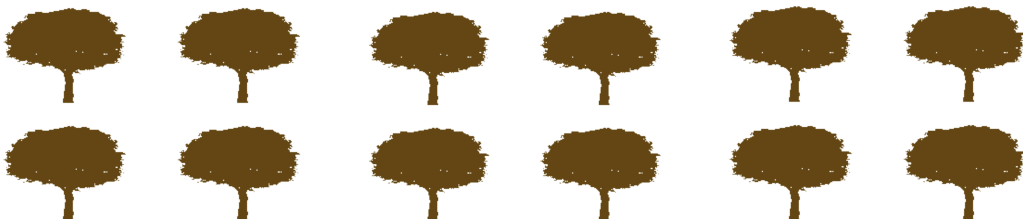
You implement a national right-to-repair law.

Collect \$50.

32 bushes



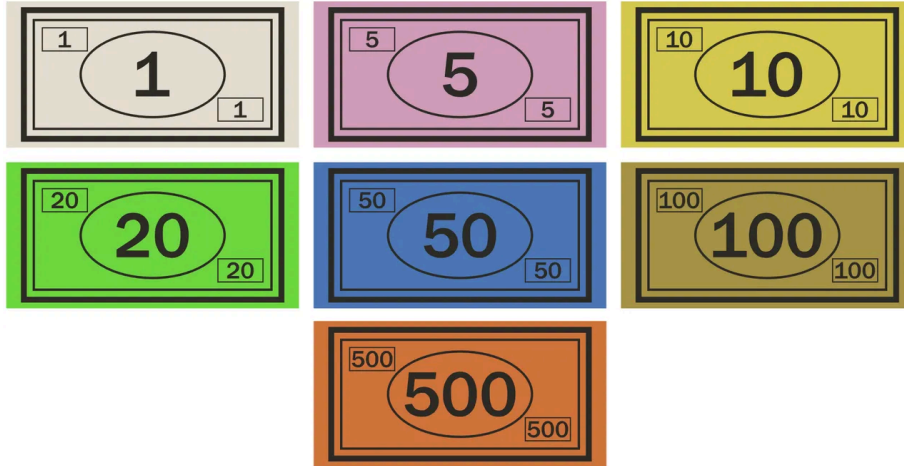
12 trees



2 dice



Money pack



Turn counter

