

# WORLD CLIMATE SIMULATION

*Your turn to negotiate*





# World Climate







U.S.A.



# Why a simulation? Why World Climate?



Morocco

# The challenge of climate change education

- Climate change is complex and urgent
- Our minds are poor dynamic simulators
- We have prior misconceptions
- Information often does not lead to action



## Systems Thinking and simulations...

- Help people try out what works, rather than being told.
- Puts people in the shoes of others so they gain new perspectives.



# 409 World Climate Simulation Events

With **20,448 Participants**  
in **59 Countries**



Can you negotiate to keep global warming under 2 °C?  
Or 1.5 °C?



# World Climate Events since 2015





# World Climate Exercise

How it works?



Introduction (10 mins)

Open UN Conference (15 mins)

Negotiations – Round 1 (25 mins)

Round 1 Speeches, Temperature Results,  
and Lessons Presentation (15 mins)

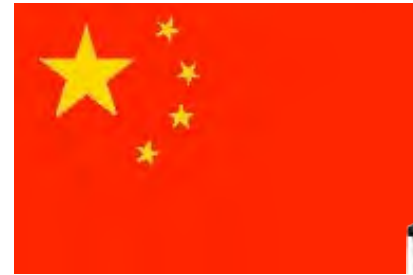
Negotiations – Rounds 2 & 3 with Results  
(50 mins)

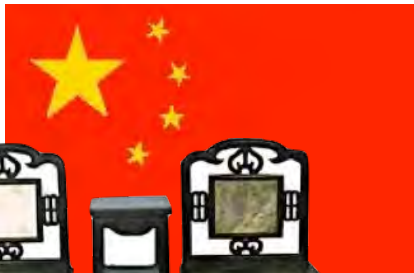
Conclusion (5 mins)

Debrief (60 mins)













# Confidential Briefings

## Confidential: China



**TO:** China negotiators at UN summit on climate change  
**SUBJECT:** Briefing on negotiating goals

You lead the China delegation at the upcoming negotiations on climate change.

**Goals:**

China seeks to negotiate a global agreement to reduce greenhouse gas (GHG) emissions that can limit those risks, but seeks the best outcome for our economy and vital national interests.

**Context:** The best available science shows the risks of climate change are real and serious. Besides environmental benefits, reaching an agreement to limit climate change would cut air pollution, which is killing our people and creating political unrest. Our economy is growing rapidly and we are emerging as a global superpower. However, our average standard of living is still far lower than that in the US, Europe, Japan, and other developed nations. Our people, like people everywhere, want to live in a healthy environment, but also want to increase their standard of living: a healthy environment includes having the means to provide for decent jobs, housing, food, healthcare, mobility and national security.

**Public opinion:** Many people in our country believe climate change is real, though fewer support agreements to address the risks of climate change.

**National action:** We must defend our right to develop. Nevertheless, we recognize that our reliance on coal, especially, has negative health consequences for our population. While we cannot commit to emissions reductions, Chinese leaders recently announced a goal of peaking our GHG emissions by around 2030, despite the continued rapid growth of our economy. Meeting this goal would require deploying zero-emissions electricity generation capacity equivalent to the entire coal-fired capacity in China today, or roughly all current US electricity generation capacity.



# Opening Remarks by a UN Official

## UN Secretary General



## UNFCCC Executive Secretary



Teams meet  
to discuss  
opening  
positions





# Negotiate with other blocks

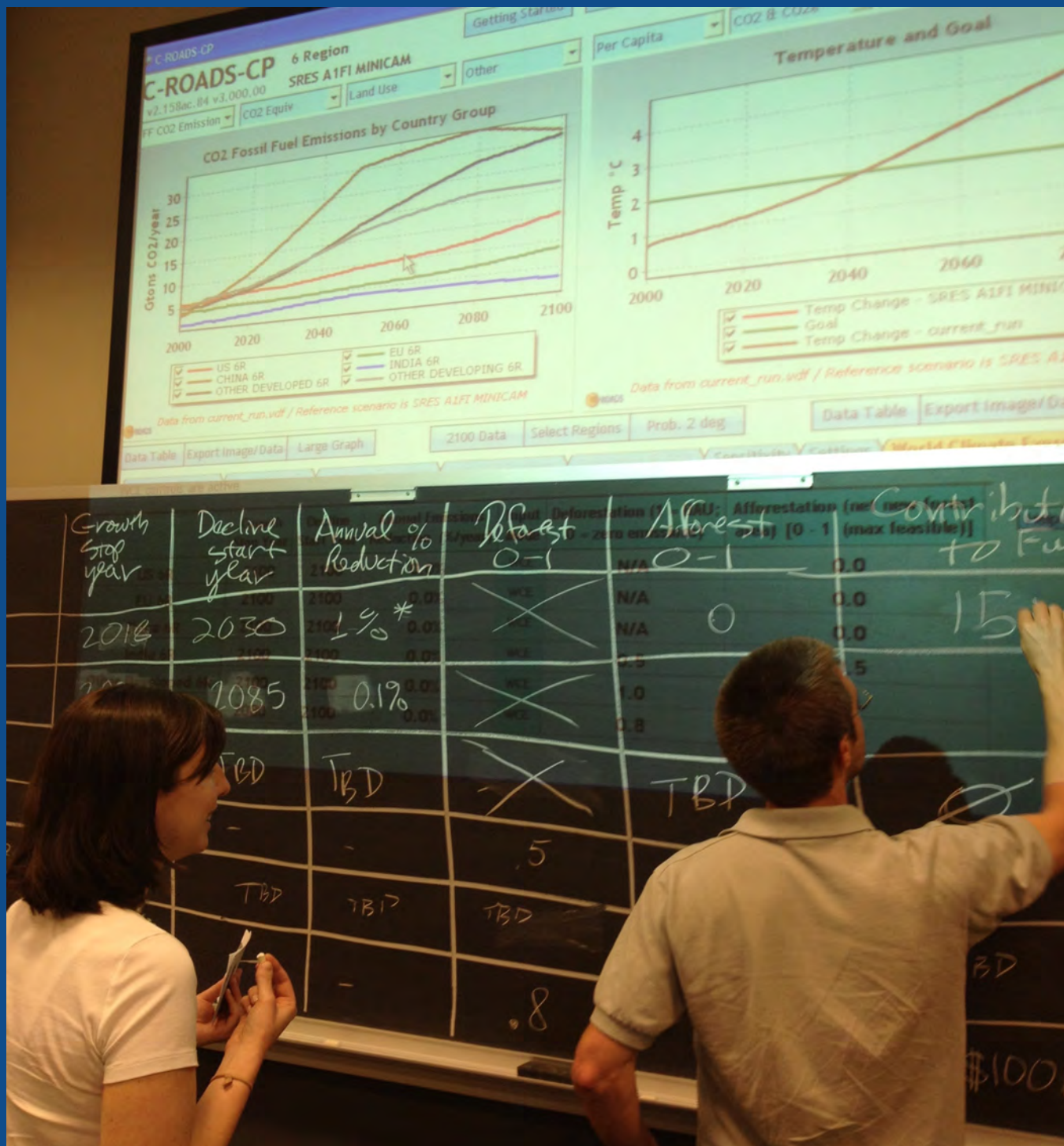




# Advocate for negotiating positions

A woman with dark hair, wearing a red polo shirt and blue jeans, stands at a podium with a microphone, speaking and gesturing with her right hand. She is holding a stack of papers in her left hand. Behind her is a large whiteboard titled "WORLD ENERGY PLAN" in a pink box. The whiteboard is divided into three main columns: "ENERGY SUPPLY", "ENERGY EFFICIENCY", and "LAND & AG". Under "ENERGY SUPPLY", it lists "COAL: FAX", "GAS: 8", "RENEWABLE: SUB", "NUCLEAR: SUB", "BIOMASS: SUB", and "NEW TECH: YES". Under "ENERGY EFFICIENCY", it lists "MOBILE: > 10%", "STATIONARY: > 10%", and "OTHER GASES: \$10". Under "LAND & AG", it lists "LAND USE" and "FORESTRY: 0". To the right of the whiteboard, there is another whiteboard with a table titled "ACTIONS:" and "POPULATION CONSUMPTION". The table has two columns: "ACTIONS:" and "POPULATION CONSUMPTION". The rows are: "REVENUE TO:", "INDUSTRY:", "PUBLIC:", "DEFICIT REDUCTION:", "C PRICE", and "GDP/CAP GROWTH". The values in the "POPULATION CONSUMPTION" column are: "30", "60", "10", "\$20 (Developing)", and "GDP/CAP GROWTH".





Submit  
pledges  
to the UN



# Position Summary



	Emissions Growth Stop Year	Emissions Reduction Start Year	Annual Emissions Reduction (%/year)	REDD (1 = BAU; 0 = zero emissions)	New Afforestation Area (0-1 [max feasible])	Contribution to (or Draw on) Fund (\$ Billion/yr)
United States						
European Union						
Other Developed						
China						
India						
Other Developing						
<i>Example</i>	<i>2075</i>	<i>2085</i>	<i>1.0%/year</i>	<i>0.8</i>	<i>0.1</i>	<i>\$10 B/yr</i>





# Check results

E 2:50

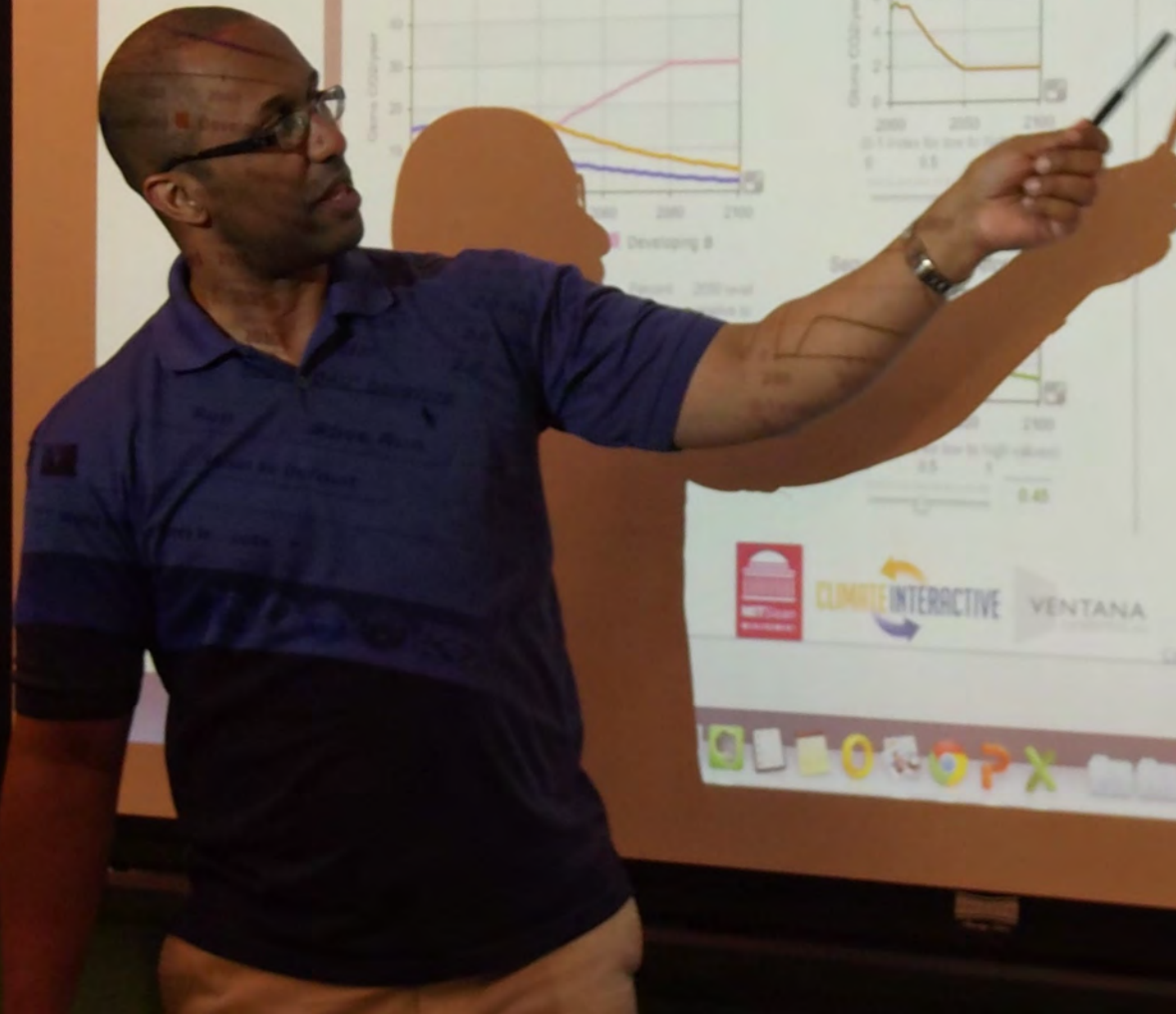
ens growth stop

ms decline start up

ok of decline 70 yr

70%

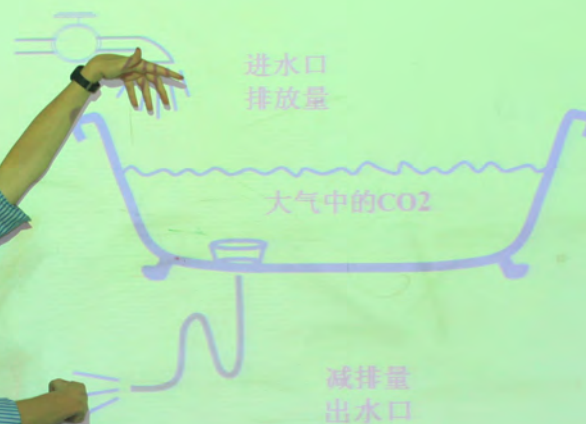
contribution



6/ 1/2014



大气中二氧化碳量的变化趋势和  
浴缸中的水一样。



周丽



# Sea Level Rise demo







# Elements of the Debrief

1. Emotion and Experience

2. Real World

3. Insights

- Bathtub, Speed & Scale, Tragedy of the Commons, Social Justice

4. Hope

5. Action





**This year ahead of COP22:**

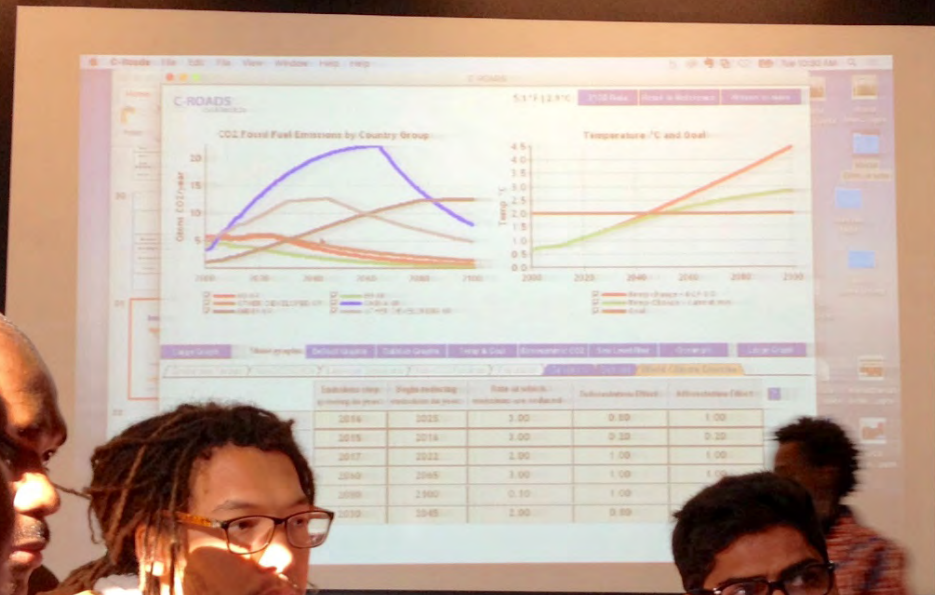


## **10,000's Africans participate in World Climate**

- To better understand the climate challenge
- Connect with others taking action.
- Develop leadership on low-carbon development











About **500 people** trained to facilitate World Climate in **12 Train-the-Trainers** events organized in close partnership with...

# Universities



UNIVERSITY OF GHANA





# Civil Society Organizations



# Businesses and Entrepreneurs



**AFRICA 2.0**

WE ARE THE ONES WE HAVE BEEN WAITING FOR



**ATTANE**

AFRICAN TRANSITION TO A NEW ECONOMY



# Governments, regional and international institutions



Ministry of Environment, Water and  
Natural Resources



UNIC Accra



# Participants are able to replicate World Climate simulations in their own communities

In the last 4 months:

+ 4000 World Climate participants in Africa.

27 facilitators running the World Climate simulation themselves





# WORLD CLIMATE SIMULATION

Your turn to negotiate

Re: Hello - jhaskell@clim... Climate Interactive - Cale... Inbox (1,731) - haskellj...  
<https://www.climateinteractive.org/tools/world-climate/>  
 Apps New Tab Climate Interactive jhaskell@climateint... haskelljc@gmail.com Box



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<https://www.climateinteractive.org/tools/world-climate/>  
 Apps New Tab Climate Interactive jhaskell@climateint... haskelljc@gmail.com Box My Webinars GoToMeeting Other bookmarks

Ahead of the now-concluded Paris climate talks, Climate Interactive, in collaboration with many partners, launched the **World Climate Project** to engage people worldwide around climate change. We are holding webinars, trainings, and releasing new materials to help you run the World Climate Exercise for your class, community, workplace, or friends.

[JOIN IN](#)

## Resources

[FACILITATOR GUIDE AND MATERIALS](#)

[WEBINARS](#)

[VIDEOS](#)

[BLOG ENTRIES](#)

[EVALUATING WORLD CLIMATE](#)



World Climate Exercise at MIT Sloan

Re: Hello - jhaskell@clim... Climate Interactive - Cale... Inbox (1,731) - haskellj...  
<https://www.climateinteractive.org/tools/world-climate/instructor-resources/>  
 Apps New Tab Climate Interactive jhaskell@climateint... haskelljc@gmail.com Box My Webinars GoToMeeting Other bookmarks

**World Climate** has been run by people of all backgrounds and skill sets. With a little preparation you can lead a highly engaging exercise to enable people to explore what is needed to address our climate challenge.

## What you need to get started

### Items for facilitators:

**World Climate Facilitator Guide** – leads you through key concepts in running World Climate, from preparation and room setup to sample scripts and debrief techniques. *Updated July 2015. Also available in French.*

**Presentation Slides** – facilitator's slide sets containing background materials and instructions. *Available in French, Spanish, German, Mandarin Chinese, Portuguese, Japanese, and Norwegian.*

**C-Learn or C-ROADS** – supporting climate policy simulations for World Climate. Choose from **C-Learn**, our online 3-region version, or the more robust **C-ROADS**, which you can **download** for Windows.

### Items to provide to participants:

**Briefing Materials** – printed handouts for participants, including sets for 3 or 6-regions. *Updated August 2015, available in Farsi, French, Portuguese, German, Mandarin Chinese, and Spanish.*

**Proposal Form** – form for participants to list their proposed actions. *Also available in Spanish, French, German, Farsi, and Mandarin.*



## TOOLS

- [Webinars](#)
- [En-ROADS](#)
- [C-ROADS](#)
- [C-Learn](#)
- [Climate Pathways](#)
- [Milwaukee Green Infrastructure](#)

- [Slide Sets](#)
- [Evaluating World Climate](#)
- [Press](#)
- [World Climate Videos](#)
- [Publications](#)
- [World Energy](#)
- [Climate Scoreboard](#)
- [CO2 Timeline](#)
- [Climate Momentum Simulation](#)
- [Climate Bathtub Simulation](#)
- [MIT's Greenhouse Gas Simulator](#)

## How Does World Climate Work?





- **Raising awareness** about climate change
- Encouraging **actions** that address climate change
- **Offering networking opportunities for various actors** to meet and discuss one of the greatest challenges of our century
- Getting **a better understanding** of climate change to better adapt **African agriculture** and meet food security





- **Getting more knowledge on climate change**
- Being empowered to have greater impacts on decision-making
- Developing their **negotiation skills**
- Building **climate resilience** in Africa



- In Ghana, the **Center for Social Innovation** and the **Green Youth Africa Organization** worked together in planning a simulation
- In Tunisia, **WWF North Africa** is benefiting from the experience of **Zero Waste Tunisia** with World Climate Simulations to organize their next event in Gabes.
- In Morocco, **universities** are collaborating to empower more and more people on climate change ahead of **COP22**.



## World Climate Project – Africa is also:

WORLD  
**CLIMATE**  
SIMULATION  
*Your turn to negotiate*

### New materials

World Climate Community Shared privately  
19 of 19 topics (8 unread) ☆

- ☐  **Coming events in Africa (1)**  
By World Climate Community - 7 posts - 27 views
- ☐  **Webinars and materials in different languages**  
By World Climate Community - 2 posts - 7 views

A web page and blog posts  
from African volunteers

**CLIMATE INTERACTIVE**  
*Tools for a thriving future*

World Climate Africa Slides (ppt) – A set of slides focusing on the climate impacts in Africa and programs to address climate change that you select from to enhance your World Climate Simulation (or another event!) Updated August 2016

An online community where people can share what's going on around World Climate at a national, regional and international level

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### World Climate Project Africa

Cultivate climate leadership by leading a [World Climate simulation](#) in your community. The World Climate role playing exercise puts participants in the middle of the UN climate negotiations. Immersing people in the policy, science, and actions that need to be taken to address climate change. World Climate has been played by tens of thousands of people in over 50 countries. Now, with the latest round of the UN climate talks scheduled this November in Morocco, we are elevating the reach of this tool throughout Africa.

Sign up if you're interested in learning about leading this simulation in Africa:





- A **new website** dedicated to World Climate
- 4 Train-the-Trainers event in Nigeria, Côte d'Ivoire and Senegal
- The **World Climate Week**
- World Climate Trainings for citizen and decision makers at **COY12** and **COP22** in Marrakesh, Morocco



# Media Coverage



## It's only a game, but even earth scientists struggle to defeat global warming

Tweet 75 Share 168 +1 3



Email Kerry

By Kerry Klein 26 February 2015 11:45 am 29 Comments

"Welcome, delegates," the U. N. official boomed to the international negotiators gathered to find a way to prevent catastrophic global warming. The delegates whispered and scribbled on pie charts as she spoke. One popped open an orange cream soda.

"What is the planet," the woman concluded, "that you will leave to our collective future?"



Hello Reutlingen, seit etwas mehr als sechs Monaten bin ich nun in San Diego und mir sind schon einige merkwürdige Dinge begegnet: Da stolpert man am Strand von Pacific Beach über einen im Ruhezustand befindlichen Doktor, der seinen Seelenfrieden im »Zeitlupen-Rollschuh-Fahren« gefunden hat. So manch ein selbst gebasteltes Auto, das hier legal auf der Straße fährt, würde jedem deutschen TÜV-Prüfer die Tränen in die Augen treiben, und Verkehrsregeln existieren eigentlich nur auf dem Papier. Doch all das trägt zum ganz eigenen Charme der Gegend bei, der »American Dream« ist hier absolut spürbar. Schon lange hatte ich den Wunsch, im Zentrum der Welt zu leben. Nun habe ich...

Reichen die beschlossenen Maßnahmen zur Reduktion der Treibhausgase im Ökosystem Erde? Studentisches Verhandlungspoker um Klimaschutzziele.



Reichen die beschlossenen Maßnahmen zur Reduktion der Treibhausgase im Ökosystem Erde? Studentisches Verhandlungspoker um Klimaschutzziele.

Forschung – Studenten simulieren, was der Schutz der Atmosphäre mit Politik, Wirtschaft und Diplomatie zu tu

## Auf der Suche nach Klimagerechtigke



QUESTIONS?

IDEAS?

COMMENTS?

Ellie Johnston - [ejohnston@climateinteractive.org](mailto:ejohnston@climateinteractive.org)

Grace Mwaura – [gmwaura@climateinteractive.org](mailto:gmwaura@climateinteractive.org)



Vanuatu