

Because

IPCC!

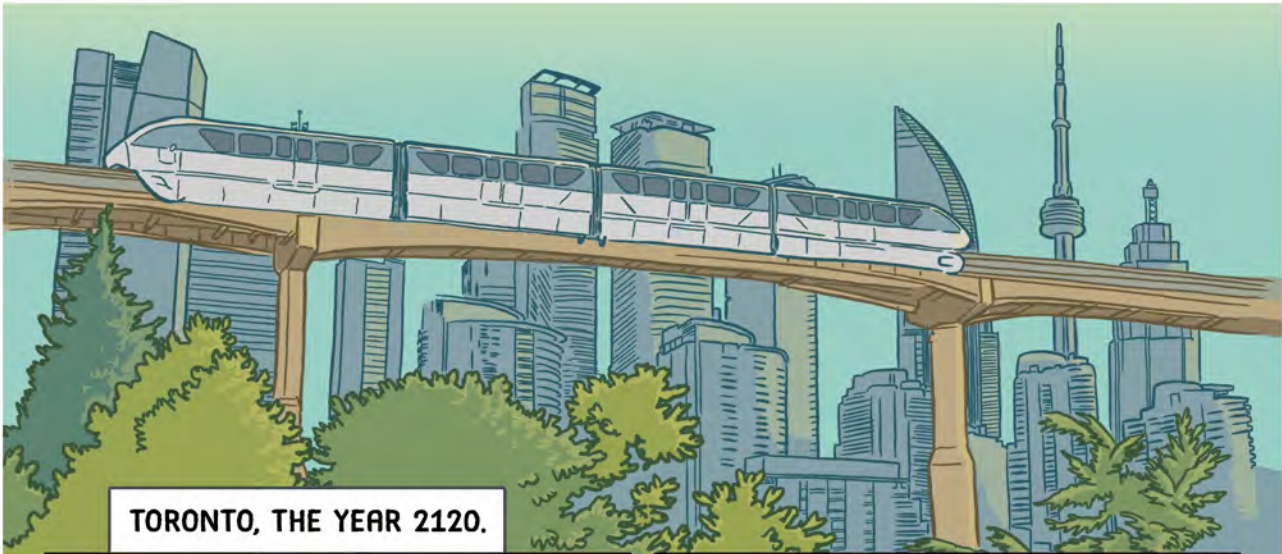
History and Science  
of the  
Intergovernmental  
Panel on  
Climate Change

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IS AVAILABLE AT  
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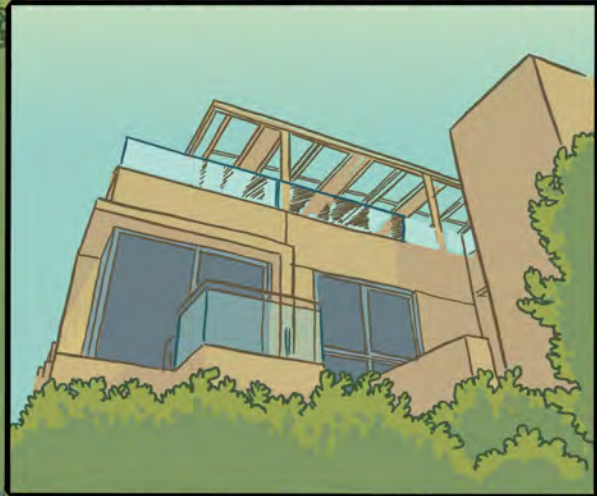
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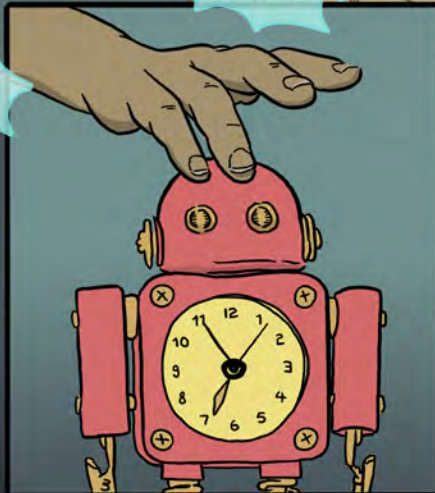
TORONTO, THE YEAR 2120.



GOOD MORNING, PRITI!

GOOD MORNING, EMMY!

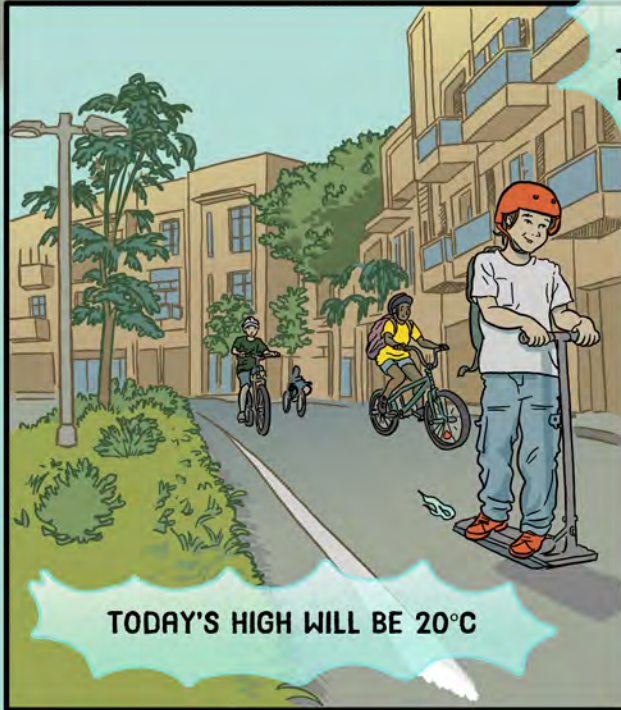
GOOD MORNING, ALEJANDRO!



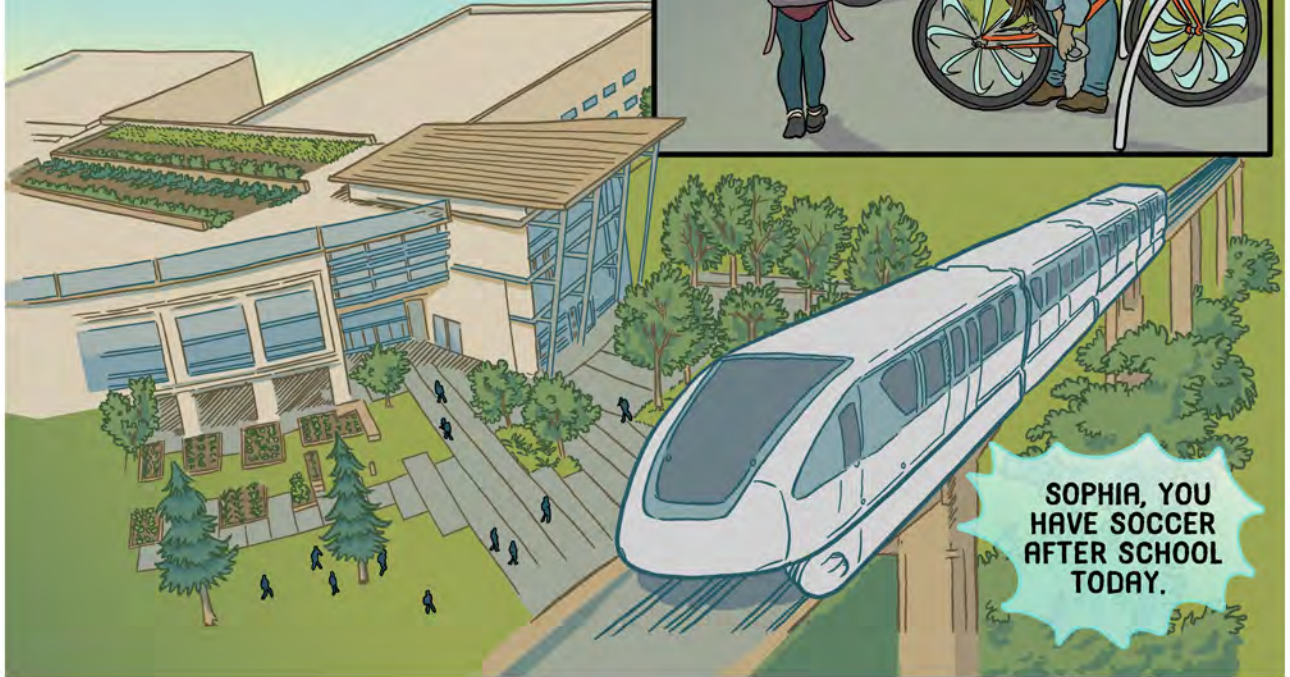




IT'S  
TUESDAY,  
MAY 7TH.



TODAY'S HIGH WILL BE 20°C

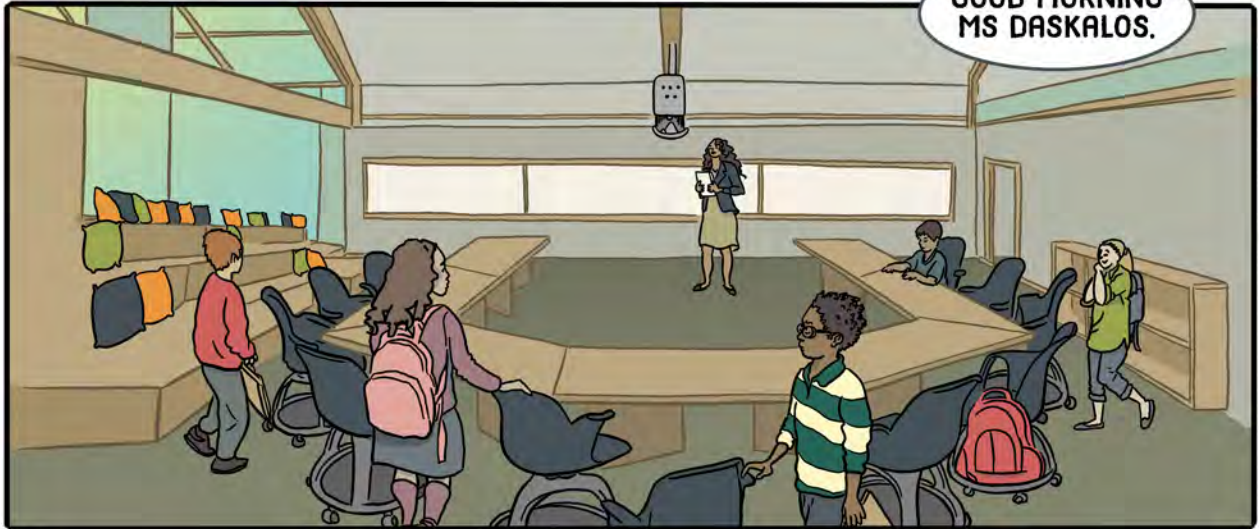


SOPHIA, YOU  
HAVE SOCCER  
AFTER SCHOOL  
TODAY.





GOOD MORNING  
MS DASKALOS.



GOOD MORNING,  
EVERYONE.



OK CLASS, TODAY WE'LL BE LEARNING ABOUT...

# THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



DOES ANYONE KNOW WHAT THAT IS?



IT'S THE THING THAT SAVED THE WORLD, RIGHT?



YES, WANG WEI, THAT'S ONE WAY OF PUTTING IT.



DOES ANYONE KNOW HOW THE IPCC SAVED THE WORLD?



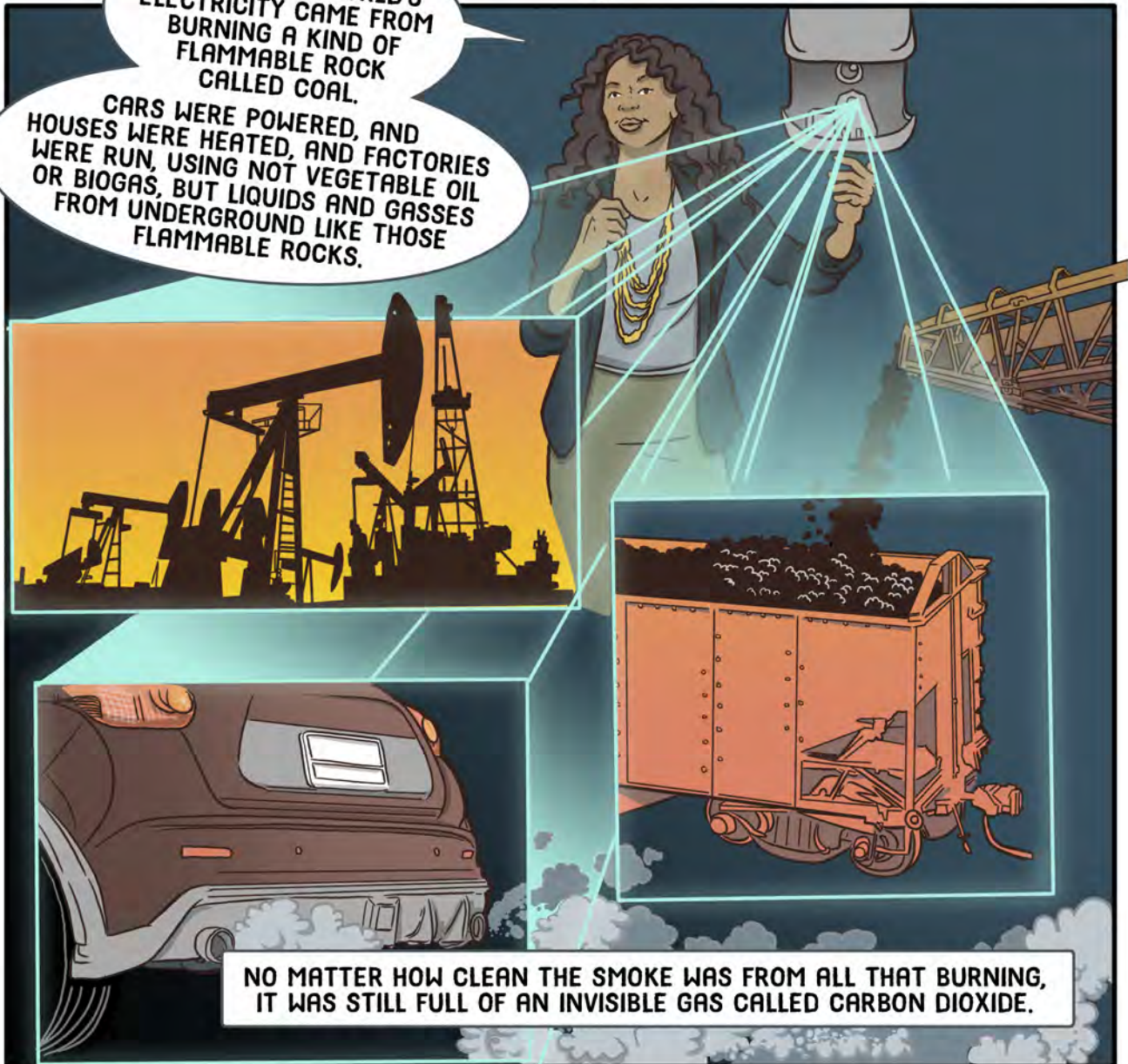


THERE'S A HINT THERE IN THE NAME.

THE WORLD HAD A BIG PROBLEM WITH CLIMATE CHANGE.

BACK THEN A LOT OF THE WORLD'S ELECTRICITY CAME FROM BURNING A KIND OF FLAMMABLE ROCK CALLED COAL.

CARS WERE POWERED, AND HOUSES WERE HEATED, AND FACTORIES WERE RUN, USING NOT VEGETABLE OIL OR BIOGAS, BUT LIQUIDS AND GASSES FROM UNDERGROUND LIKE THOSE FLAMMABLE ROCKS.



NO MATTER HOW CLEAN THE SMOKE WAS FROM ALL THAT BURNING, IT WAS STILL FULL OF AN INVISIBLE GAS CALLED CARBON DIOXIDE.



IT WAS MOSTLY THAT,  
BUT OTHER THINGS  
TOO, THAT CAUSED  
BIG PROBLEMS.

THESE CHANGES IN  
THE AIR MADE OUR  
PLANET GET HOTTER.



PLANTS AND ANIMALS  
SUFFERED; LOTS  
WENT EXTINCT.

SEA LEVELS ROSE; PEOPLE'S  
HOMES WERE FLOODED.



AND PEOPLE STARTED  
TO GO HUNGRY.



AND IT LOOKED LIKE IT WAS JUST GOING TO KEEP GETTING WORSE...

*Washington Post*  
No more than a decade to  
control climate change under control, U.N.  
scientists say

*The New York Times*  
Major Climate Report Describes a  
Strong Risk of Crisis as Early as 2040

*The Guardian*  
We have 12 years to limit climate  
change, scientists say



THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE WAS FOUNDED WAY BACK IN 1988.



# ipcc

MADE UP OF THE INTERNATIONAL COMMUNITY OF SCIENTISTS AND GOVERNMENTS, IT STUDIED THE PLANET'S CHANGING CLIMATE.

THIS WAS BACKED UP BY THE GOVERNMENTS OF THE COUNTRIES SIGNING AN INTERNATIONAL CONVENTION.\*



197 OF THEM SIGNED.

THAT'S MORE COUNTRIES THAN THERE WERE MEMBERS OF THE UNITED NATIONS!†

\* THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE OR UNFCCC



BEFORE THE IPCC THERE WAS RISING CONCERN AMONG SCIENTISTS ABOUT THE CHANGING CLIMATE.

BUT THE UNITED STATES DIDN'T WANT A FEW SCIENTISTS GETTING EVERYONE WORRIED IF IT TURNED OUT GLOBAL WARMING WASN'T SUCH A BIG PROBLEM.



Mostafa Kamal Tolba



Michael Oppenheimer



Jill Jäger



Bert Bolin



Stephen H. Schneider

SO THE US AND OTHER COUNTRIES ENCOURAGED THE UN TO SET UP THE IPCC TO SEE IF MORE SCIENTISTS AGREED.



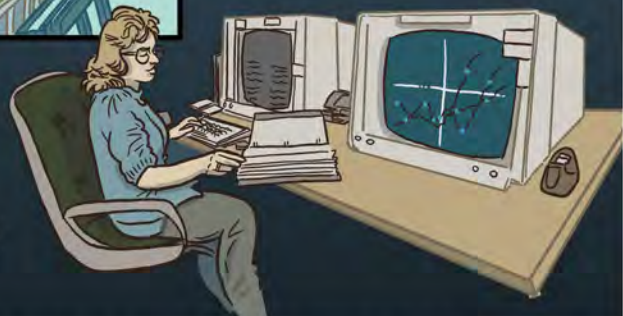
TODAY, IN 2120, GOVERNMENTS, BUSINESSES AND PEOPLE HAVE CHANGED HOW WE POWER OUR WORLD, SO WE'VE STABILIZED THE CLIMATE.



THE IPCC IS STILL WRITING REPORTS MORE THAN 130 YEARS LATER TO CONFIRM WE'RE MANAGING OUR WORLD PROPERLY.



WHEN THE IPCC STARTED THOUGH,

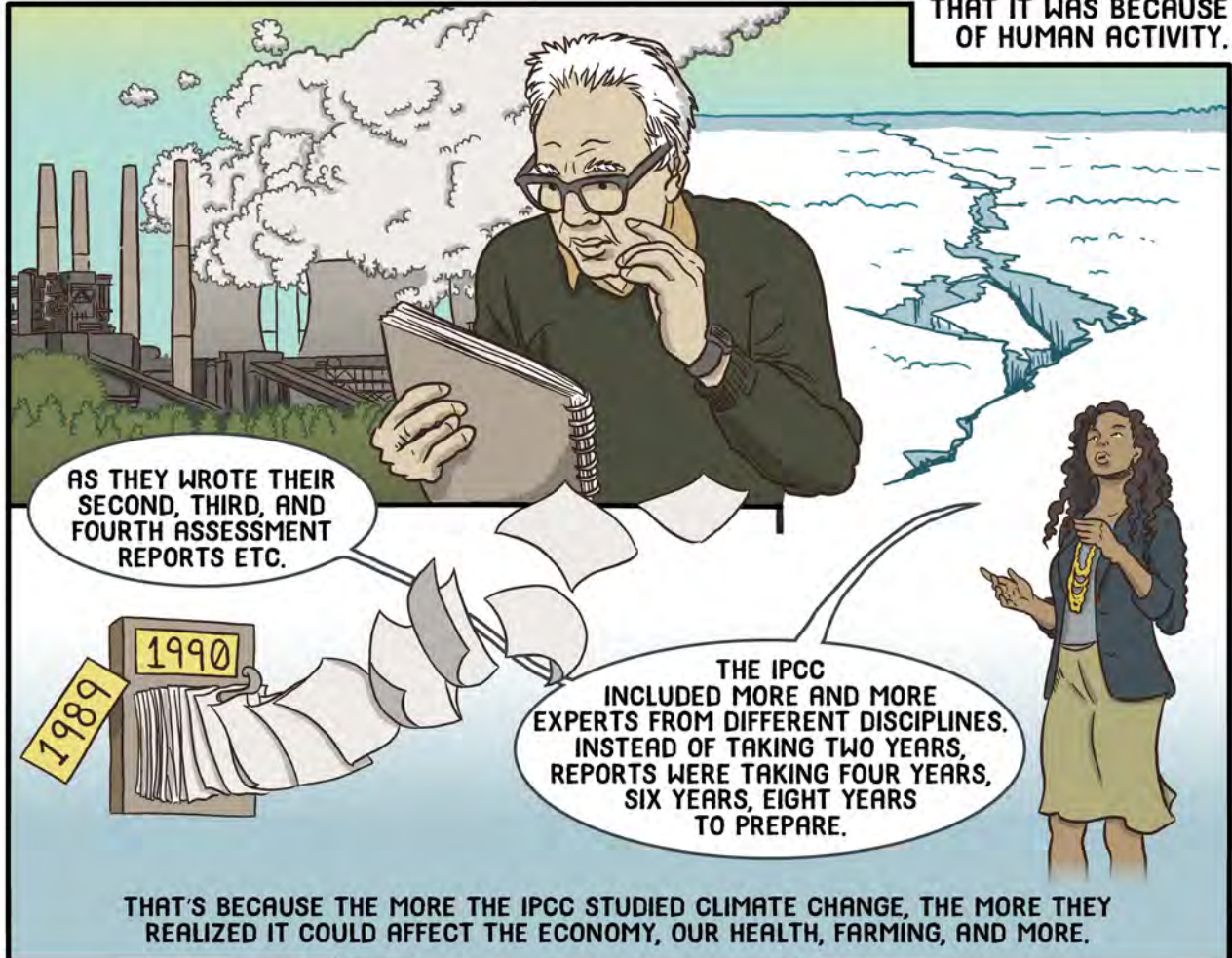


IT FIRST HAD TO ESTABLISH THAT CLIMATE CHANGE WAS HAPPENING AT ALL.

IT WAS A BIG JOB. IT TOOK TWO YEARS TO WRITE THE FIRST REPORT!



**IPCC SCIENTISTS THEN NEEDED TO PROVE THAT THE CHANGING CLIMATE WASN'T NATURAL, THAT IT WAS BECAUSE OF HUMAN ACTIVITY.**



**AS THEY WROTE THEIR SECOND, THIRD, AND FOURTH ASSESSMENT REPORTS ETC.**

**1989**


**1990**

**THE IPCC INCLUDED MORE AND MORE EXPERTS FROM DIFFERENT DISCIPLINES. INSTEAD OF TAKING TWO YEARS, REPORTS WERE TAKING FOUR YEARS, SIX YEARS, EIGHT YEARS TO PREPARE.**

**THAT'S BECAUSE THE MORE THE IPCC STUDIED CLIMATE CHANGE, THE MORE THEY REALIZED IT COULD AFFECT THE ECONOMY, OUR HEALTH, FARMING, AND MORE.**



**INDIGENOUS EXPERTS WITH TRADITIONAL KNOWLEDGE NEEDED TO BE INCLUDED.**



**MORE AND MORE, THE SOCIAL SCIENCES REQUIRED CONSIDERATION.**

**SCIENTISTS AND EXPERTS FROM SO MANY DISCIPLINES NEEDED TO BE INCLUDED.**



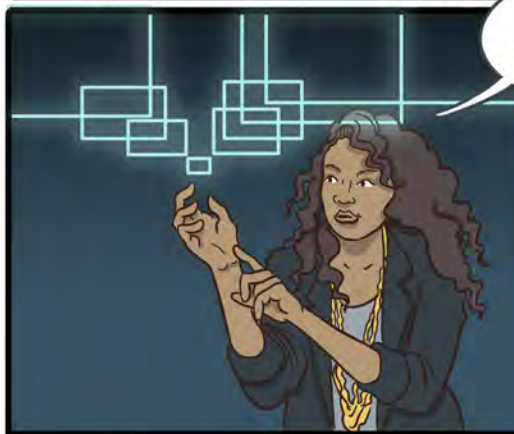


**EVEN THOUGH REAL ACTION WAS SLOW IN COMING,  
THE WORLD WAS STARTING TO RECOGNIZE HOW IMPORTANT THE IPCC'S WORK WAS.**



**BUT  
LET'S NOT  
GET AHEAD OF  
OURSELVES.**

**WE'RE GOING  
TO LEARN ABOUT HOW THE IPCC  
WORKED.**



**THE IPCC'S TASK WAS TO ASSESS THE STATE OF SCIENTIFIC UNDERSTANDING.  
IT WASN'T A GROUP THAT DID PRIMARY RESEARCH ITSELF.**





INSTEAD, IT GATHERED, ANALYZED AND SUMMARIZED TENS OF THOUSANDS OF RESEARCH PAPERS PUBLISHED IN SCIENTIFIC JOURNALS - THE SUM OF HUMAN KNOWLEDGE - ABOUT OUR CLIMATE, HOW IT WAS CHANGING, THE EFFECTS THOSE CHANGES WOULD HAVE, AND HOW TO AVOID THEM.



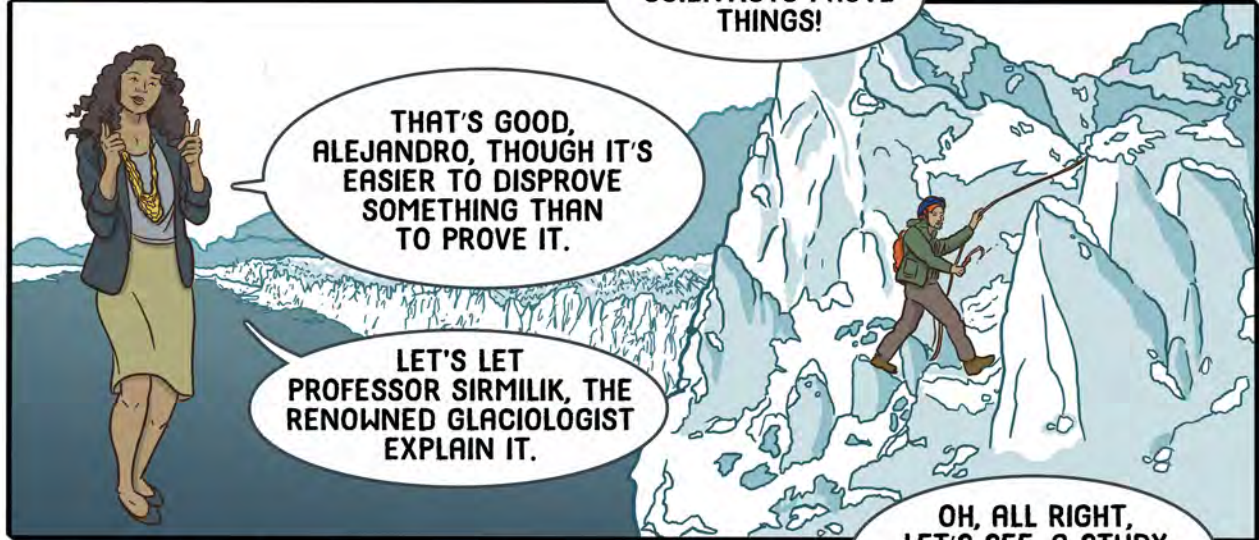




DOES ANYONE KNOW WHAT THE SCIENTIFIC METHOD IS?

YES, ALEJANDRO

IT'S HOW SCIENTISTS PROVE THINGS!



THAT'S GOOD, ALEJANDRO, THOUGH IT'S EASIER TO DISPROVE SOMETHING THAN TO PROVE IT.

LET'S LET PROFESSOR SIRMILIK, THE RENOWNED GLACIOLOGIST EXPLAIN IT.

OH, ALL RIGHT, LET'S SEE. A STUDY USING THE SCIENTIFIC METHOD.



OKAY, HERE'S ONE. IF CLIMATE CHANGE IS REAL, AND THE WORLD IS WARMING UP, THEN YOUR AVERAGE GLACIER WOULD BEGIN TO MELT FASTER THAN BEFORE.

BUT IS THAT REALLY TRUE?



TO DO A STUDY USING THE SCIENTIFIC METHOD, FIRST I NEED A HYPOTHESIS, WHICH MEANS A STATEMENT THAT MY STUDY CAN SUPPORT AS BEING TRUE OR, IF I WAS WRONG, AS BEING FALSE.



SO IN THIS CASE MY HYPOTHESIS IS THAT GLACIERS AROUND THE WORLD ARE GETTING SMALLER THAN THEY USED TO BE. SO HOW CAN I TEST MY HYPOTHESIS? THERE ARE MANY GLACIERS IN THE WORLD... AND TIME IS AN IMPORTANT FACTOR.

BY CHOOSING ABOUT 40 GLACIERS FROM DIFFERENT PLACES IN THE WORLD,

AND STUDYING THOSE CLOSELY FOR SEVERAL DECADES,

MY COLLEAGUES AND I HAVE GOTTEN A PRETTY GOOD IDEA OF HOW ALL GLACIERS ARE BEHAVING.





**SURE ENOUGH, THE MEASUREMENTS OF THESE SO CALLED "REFERENCE" GLACIERS SHOW THAT ALMOST ALL GLACIERS HAVE BEEN LOSING WHAT WE CALL THEIR "MASS BALANCE" - IT STILL SNOWS AT THE TOP OF THE MOUNTAINS WHICH ADDS MASS, BUT THE MELTING IS HAPPENING FASTER THAN THE SNOW IS ADDING.**

**IN THIS CASE THE DATA SUPPORTS MY HYPOTHESIS.**

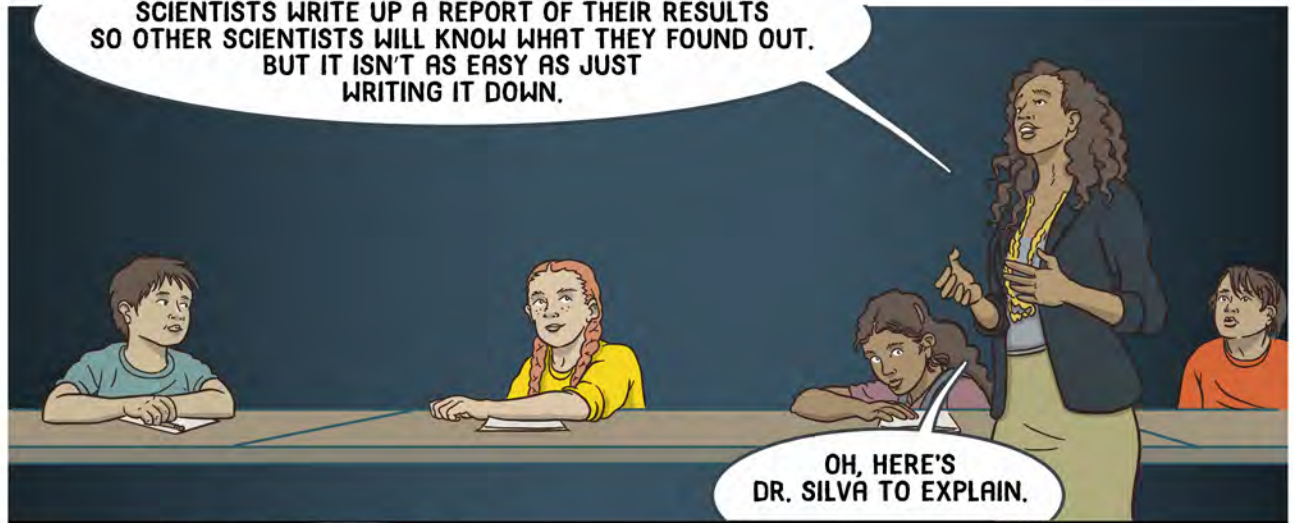
**SO, TO SUMMARIZE, THE SCIENTIFIC METHOD MEANS THAT A SCIENTIST EXPRESSES AN IDEA ABOUT HOW THEY THINK THE WORLD WORKS: THEIR HYPOTHESIS;**

**THEN GATHERS FACTUAL INFORMATION TO SUPPORT OR REFUTE THAT HYPOTHESIS.**

**EVIDENCE ABOUT CLIMATE CHANGE HAS BEEN GATHERED OVER MANY YEARS BY MANY GROUPS OF SCIENTISTS DOING STUDIES AND EXPERIMENTS USING THIS "SCIENTIFIC METHOD" TO EXPLORE A WIDE RANGE OF SCIENTIFIC SUBJECTS.**

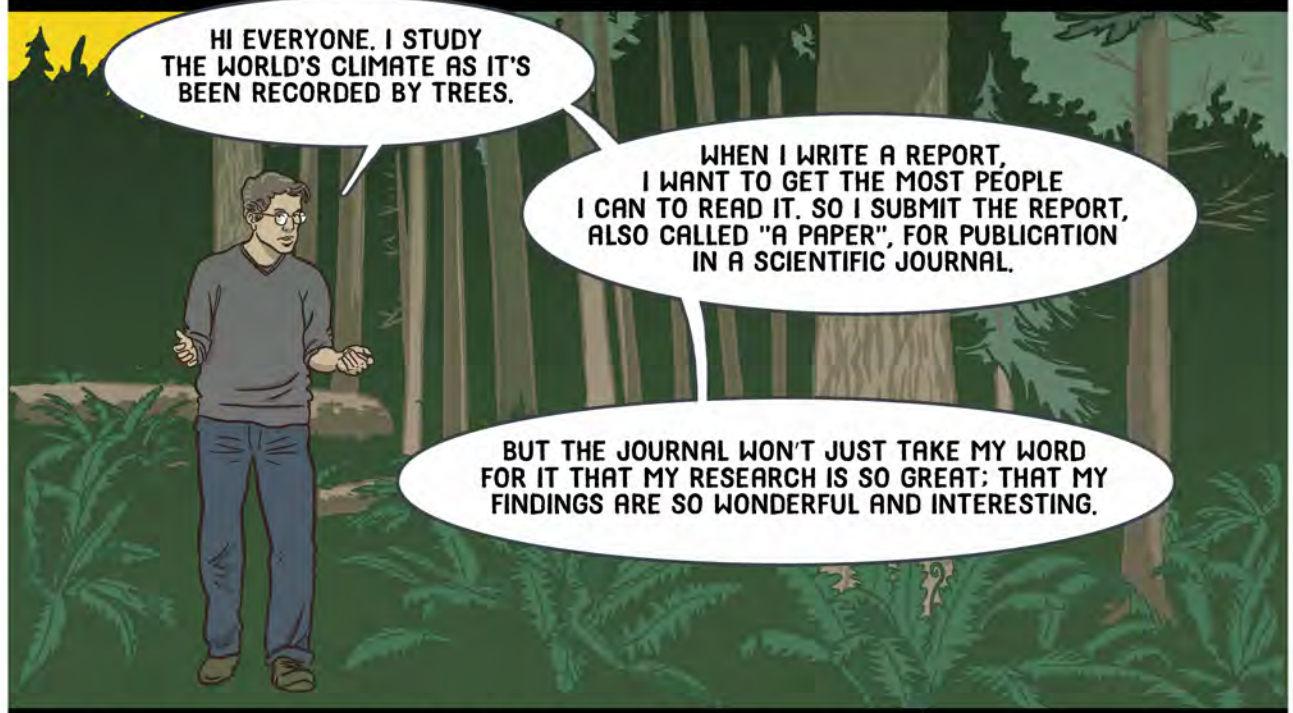


SCIENTISTS WRITE UP A REPORT OF THEIR RESULTS  
SO OTHER SCIENTISTS WILL KNOW WHAT THEY FOUND OUT.  
BUT IT ISN'T AS EASY AS JUST  
WRITING IT DOWN.



OH, HERE'S  
DR. SILVA TO EXPLAIN.

HI EVERYONE. I STUDY  
THE WORLD'S CLIMATE AS IT'S  
BEEN RECORDED BY TREES.



WHEN I WRITE A REPORT,  
I WANT TO GET THE MOST PEOPLE  
I CAN TO READ IT. SO I SUBMIT THE REPORT,  
ALSO CALLED "A PAPER", FOR PUBLICATION  
IN A SCIENTIFIC JOURNAL.

BUT THE JOURNAL WON'T JUST TAKE MY WORD  
FOR IT THAT MY RESEARCH IS SO GREAT; THAT MY  
FINDINGS ARE SO WONDERFUL AND INTERESTING.

INSTEAD THEY ASK A BUNCH OF OTHER  
SCIENTISTS FIRST. OTHER EXPERTS WHO  
UNDERSTAND HOW THE WORLD'S  
CLIMATE AFFECTS ITS TREES.



THEY DON'T  
TELL ME WHO THE  
OTHER SCIENTISTS ARE.  
THEY'RE ANONYMOUS.

THEY ARE MY PEERS.  
THAT'S WHY IT'S CALLED  
PEER REVIEW.







THROUGH THE JOURNAL EDITOR, THEY ASK ME QUESTIONS ABOUT MY RESEARCH. IF I MADE AN ERROR THEY POINT IT OUT.

THE EDITOR WILL ONLY PUBLISH MY PAPER AFTER I CLEAR UP THE QUESTIONS MY PEERS HAVE RAISED.



HA HA, TRICKED YOU.

I'M DR. SAMPADIKA, THE EDITOR OF A SCIENTIFIC JOURNAL.

NOT ONLY DO SCIENTISTS WANT PUBLICATION IN A JOURNAL, THEY'D LIKE IT IN A PRESTIGIOUS JOURNAL.



Y'SEE, A SCIENTIST'S CAREER SUCCESS IS SOMETIMES CONSIDERED ACCORDING TO THE NUMBER OF JOURNAL ARTICLES THEY'VE HAD PUBLISHED. PLUS, THE MORE PRESTIGIOUS THE JOURNAL THE BETTER. IT MEANS MORE READERS AND POSSIBLY MORE "CITATIONS."



OVER TIME, THE MORE CITATIONS CAN ALSO MEAN THE MORE IMPORTANT THE ORIGINAL PAPER.

IT'S KIND OF LIKE AN ONGOING, OPEN-ENDED PEER REVIEW.

A "CITATION" IS WHEN ANOTHER SCIENTIST IN THE FUTURE REFERS TO YOUR SCIENTIFIC PAPER IN THEIRS.



**NORMALLY, IT TOOK YEARS OR DECADES OF MANY DIFFERENT SCIENTISTS EXPLORING DIFFERENT LINES OF EVIDENCE; ALL EXPERIMENTING, TESTING, PUBLISHING IN SCIENTIFIC JOURNALS, BEFORE A THEORY COULD BE ACCEPTED AS FACT.**

**AS I SAID EARLIER, THE IPCC REPORTS SUMMED UP WHAT THE SCIENCE WAS SHOWING THROUGH TENS OF THOUSANDS OF PUBLISHED PAPERS. BUT IT TOOK SCIENTISTS TO WRITE THE IPCC ASSESSMENT REPORTS, TOO.**

**DR. AKVO, CAN YOU TELL US ABOUT THAT?**

**HI, KIDS. I'M A SCIENTIST WHO STUDIES THE ACIDITY OF THE OCEANS**

**BECAUSE CARBON DIOXIDE, WHICH WAS CAUSING CLIMATE CHANGE, WAS ALSO MAKING SEAWATER MORE ACIDIC.**

**BEFORE THE IPCC CAN WRITE A REPORT, THE AUTHORS HAVE TO BE CHOSEN.**

**GOVERNMENTS COULD SUGGEST SCIENTISTS TO BE REPORT AUTHORS.**

**BUT OBSERVER ORGANIZATIONS COULD ALSO NOMINATE EXPERTS.**

**THERE WERE MORE THAN 100 OBSERVER ORGANIZATIONS, INCLUDING BUSINESS GROUPS AND PUBLIC INTEREST ORGANIZATIONS.**





YES, THE TWO EXTREMES WERE THERE.

GROUPS LIKE GREENPEACE AND ENVIRONMENTAL DEFENSE AS WELL AS INDUSTRY REPRESENTATIVES LIKE OPEC AND THE WORLD COAL INSTITUTE.

THEY ALL GOT TO HAVE THEIR SAY.

IPCC AUTHORS WERE CHOSEN FROM ALL OVER THE WORLD TO REPRESENT THE WHOLE OF HUMANITY...

...FOR THEIR SCIENTIFIC AND TECHNICAL EXPERTISE, BUT ALSO THEIR GENDER, COUNTRY AND REGION OF ORIGIN. THE CONSEQUENCES OF CLIMATE CHANGE APPLIED TO EVERYONE!


IT WAS IMPORTANT THAT THE IPCC REPORTS REFLECTED THE DIVERSITY OF THE WORLD'S PEOPLES.

THEY WERE ALSO CAREFUL TO KEEP INVITING NEW SCIENTISTS INTO THE PROCESS SO THAT IT WASN'T THE SAME PEOPLE WRITING THE REPORTS EVERY TIME.







THESE SCIENTISTS NOT  
ONLY CAME FROM ALL  
OVER THE WORLD,



THEY WORKED  
ALL OVER IT TOO.



IN THE FIELD  
AND IN THEIR  
LABS,



THEY GATHERED  
THE DATA THAT  
WAS THE HEART  
OF THE IPCC  
PROCESS.



THEY STUDIED  
HOW THE CLIMATE  
WAS CHANGING,

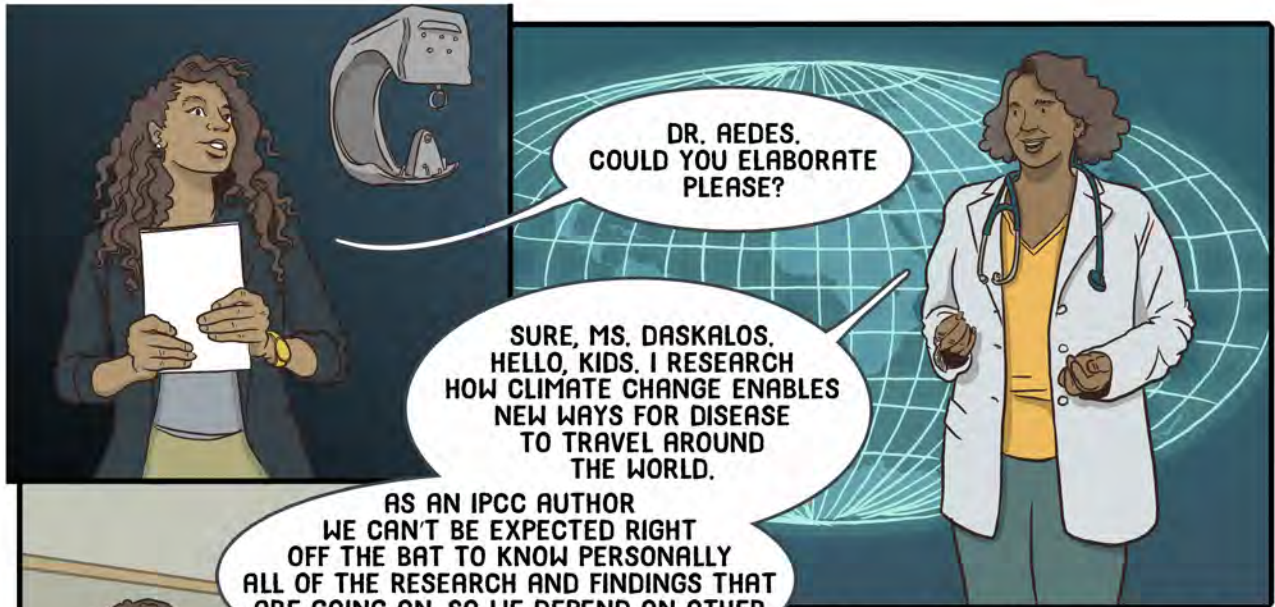
THE IMPACTS  
OF THOSE CHANGES,

AND HOW TO AVOID THE WORST  
OF THOSE IMPACTS.



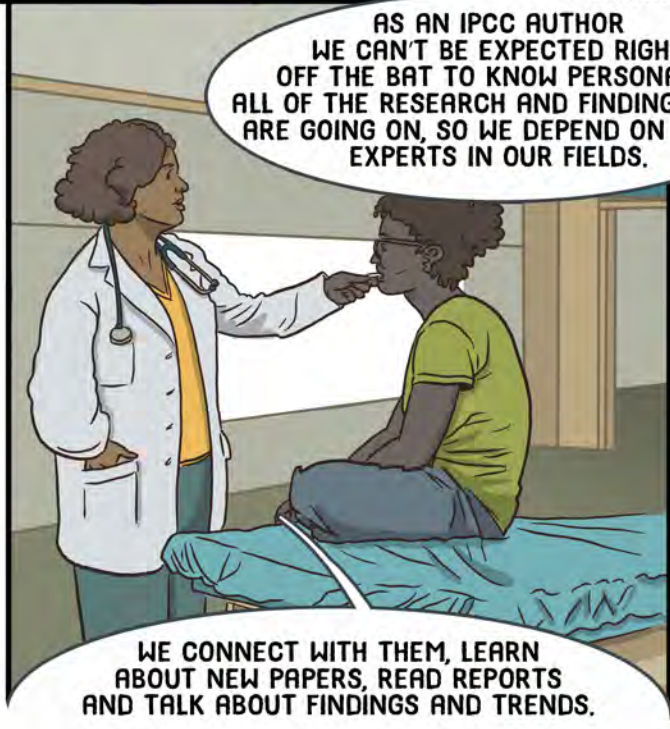
WITH THE AUTHORS  
CHOSEN, WRITING ON  
THE REPORTS BEGAN  
IN EARNEST.



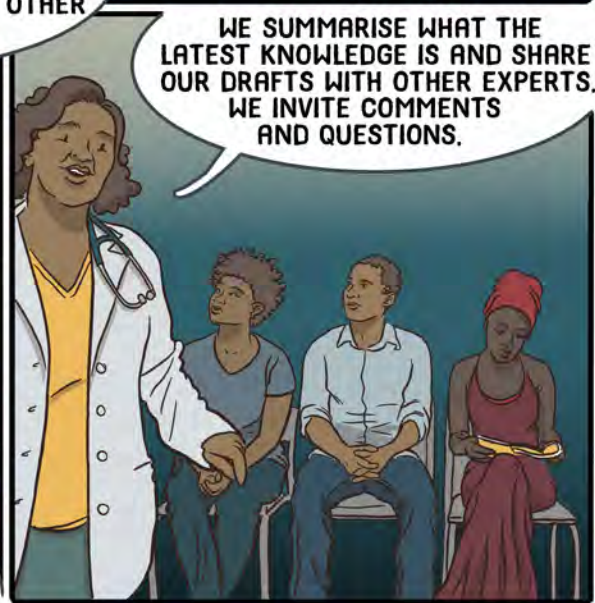


DR. AEDES.  
COULD YOU ELABORATE  
PLEASE?

SURE, MS. DASKALOS.  
HELLO, KIDS. I RESEARCH  
HOW CLIMATE CHANGE ENABLES  
NEW WAYS FOR DISEASE  
TO TRAVEL AROUND  
THE WORLD.



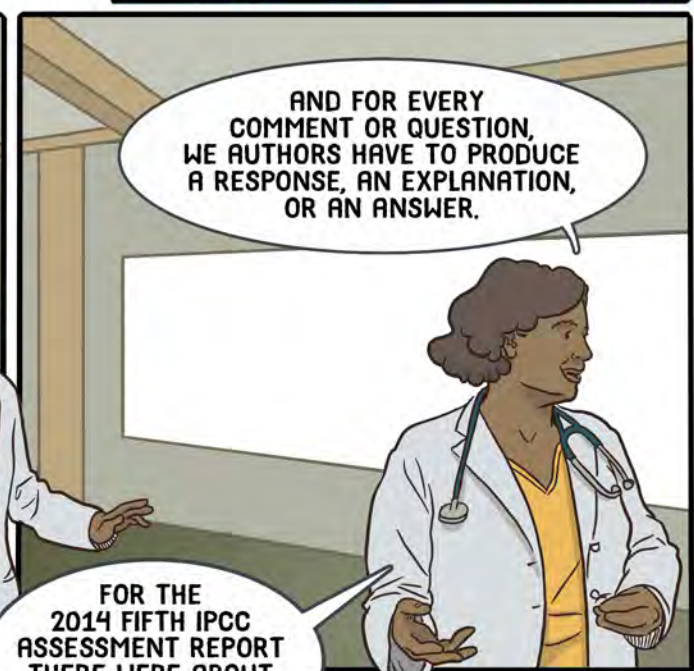
AS AN IPCC AUTHOR  
WE CAN'T BE EXPECTED RIGHT  
OFF THE BAT TO KNOW PERSONALLY  
ALL OF THE RESEARCH AND FINDINGS THAT  
ARE GOING ON, SO WE DEPEND ON OTHER  
EXPERTS IN OUR FIELDS.



WE SUMMARISE WHAT THE  
LATEST KNOWLEDGE IS AND SHARE  
OUR DRAFTS WITH OTHER EXPERTS.  
WE INVITE COMMENTS  
AND QUESTIONS.



THAT MEANS  
THAT ANYONE WHO THINKS  
OF THEMSELVES AS AN EXPERT  
MAY ASK TO COMMENT  
ON THE DRAFT.



AND FOR EVERY  
COMMENT OR QUESTION,  
WE AUTHORS HAVE TO PRODUCE  
A RESPONSE, AN EXPLANATION,  
OR AN ANSWER.

FOR THE  
2014 FIFTH IPCC  
ASSESSMENT REPORT  
THERE WERE ABOUT  
140,000 REVIEWER  
QUERIES.



BUT DO YOU AUTHORS GET TOGETHER?

OH, YEA, LOOONG MEETINGS, COMBING THROUGH AND DEBATING EVERY DETAIL.

SO THIS IS LIKE AN UBER PEER REVIEW OF SCIENTIFIC KNOWLEDGE THAT'S MOSTLY ALREADY PEER REVIEWED AND EVEN STOOD THE TEST OF TIME WITH CITATIONS AND ALL THAT?

YUP.

HOW MUCH DID YOU GET PAID FOR ALL OF THIS?

WHAT? NO! IPCC SCIENTISTS ARE VOLUNTEERS.

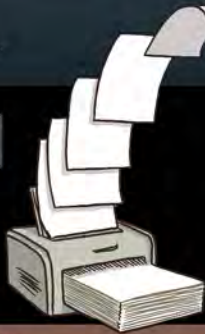
VOLUNTEERS!



WELL, THANK YOU.

THANKS TO ALL OF YOU IPCC SCIENTISTS!

WITH ALL THAT FEEDBACK,



THE AUTHORS COULD WRITE THE FINAL REPORT.



THE WHOLE POINT OF THE IPCC WAS TO DELIVER SCIENTIFIC INFORMATION THAT GOVERNMENTS COULD USE TO GOVERN BETTER;

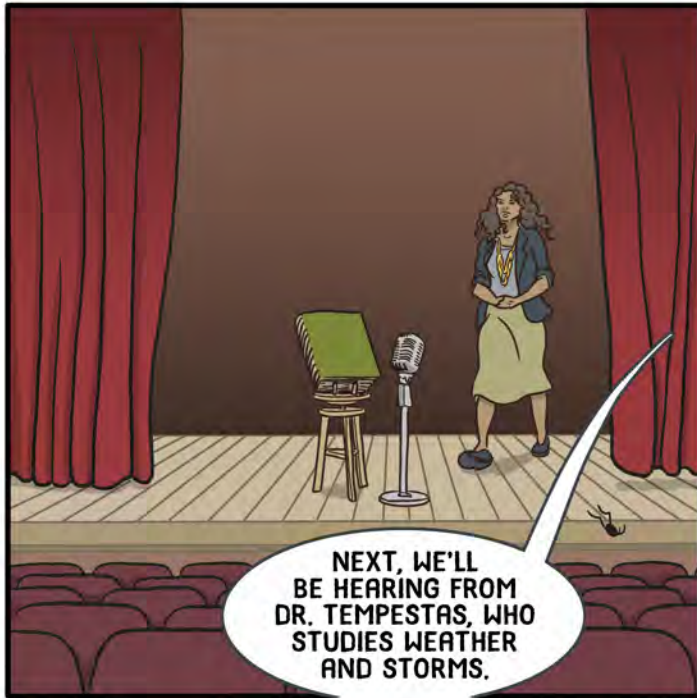


CHIRP CHIRP!

BUT A BIG, FAT, DENSELY-WRITTEN REPORT DIDN'T MEET THE NEED.

TO AVOID THE CLIMATE CRISIS.

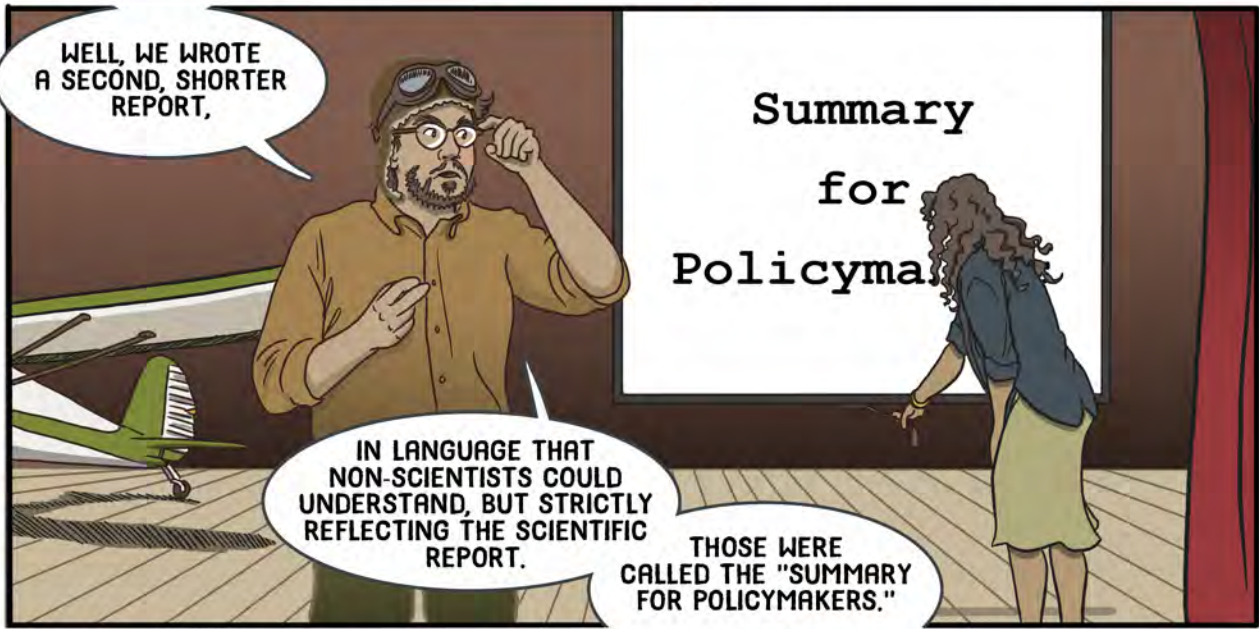




NEXT, WE'LL BE HEARING FROM DR. TEMPESTAS, WHO STUDIES WEATHER AND STORMS.



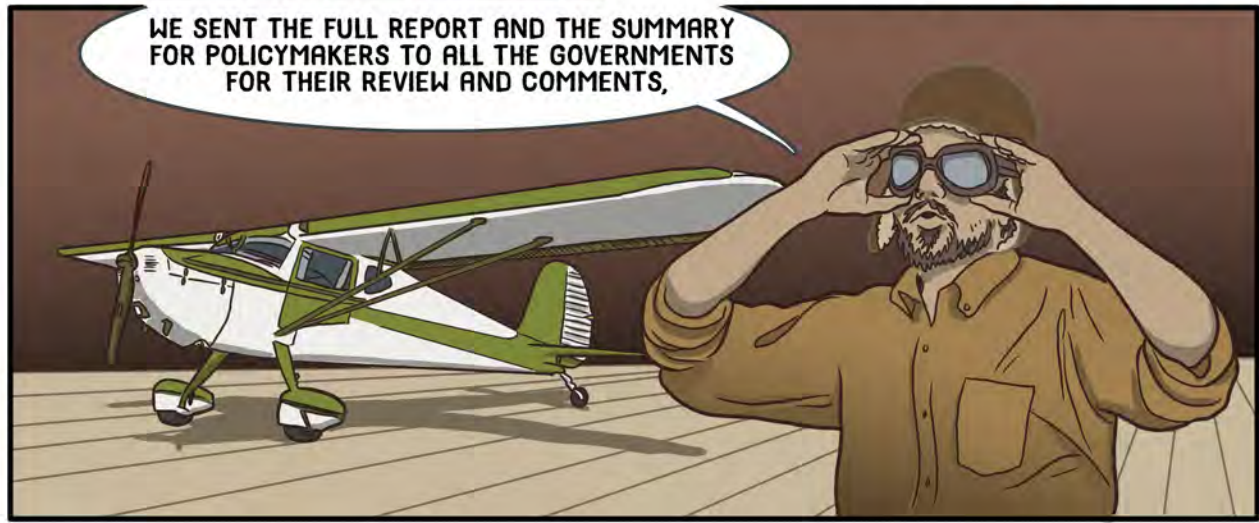
HE'S GOING TO EXPLAIN HOW THE IPCC HANDLED THAT LITTLE PROBLEM OF SPEAKING SCIENCE TO POWER.



WELL, WE WROTE A SECOND, SHORTER REPORT,

IN LANGUAGE THAT NON-SCIENTISTS COULD UNDERSTAND, BUT STRICTLY REFLECTING THE SCIENTIFIC REPORT.

THOSE WERE CALLED THE "SUMMARY FOR POLICYMAKERS."



WE SENT THE FULL REPORT AND THE SUMMARY FOR POLICYMAKERS TO ALL THE GOVERNMENTS FOR THEIR REVIEW AND COMMENTS,



BUT IT WASN'T OVER YET.

THERE WERE THESE BIG PLENARIES - MEETINGS THAT WENT ON FOR DAYS, OFTEN ALL NIGHT.

WITH BOTH SCIENTISTS AND GOVERNMENTS IN THE ROOM WE'D GO OVER THE SUMMARY FOR POLICY MAKERS LINE-BY-LINE AND WORD-BY-WORD.

BOY, THERE WERE DEBATES: HEATED DEBATES.

REMEMBER, THOSE GOVERNMENTS INCLUDED COUNTRIES WHOSE ENTIRE ECONOMIES WERE BASED ON SELLING OIL, COAL AND GAS: PLUS COUNTRIES ON SMALL ISLANDS THAT WOULD SOON DISAPPEAR UNDER THE WAVES OF THE RISING OCEANS.

THEY ALL REALLY CARED.

PLUS THEY WERE CONFERRING WITH THE OBSERVER GROUPS WHO ALSO CARED.





BUT IT WAS ALL WORTH IT: THE LONG NIGHTS, THE HEATED ARGUMENTS. FOR TWO REASONS:



FIRST OF ALL, ALL THAT DEBATING RESULTED IN BETTER REPORTS.

SECOND, AS THE GOVERNMENTS UNANIMOUSLY APPROVED THE FINAL TEXT AND ACCEPTED THE REPORTS, THEY BECAME GOVERNMENT REPORTS, NOT REPORTS FROM THE SCIENTISTS.



EACH IPCC REPORT BECAME A UNIQUELY INTERNATIONAL AND UNEQUIVOCAL CONSENSUS ON HUMAN KNOWLEDGE ABOUT CLIMATE CHANGE, ITS EFFECTS AND WAYS TO AVOID THE WORST OF THOSE EFFECTS.



AH, IT'S RIGHT THERE IN THE NAME, ISN'T IT? THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE.

THANK YOU, DOCTOR!

STRANGE AS IT MIGHT SEEM TODAY, NOT EVERYONE AGREED THAT THE CLIMATE WAS CHANGING, OR THAT HUMANS WERE RESPONSIBLE FOR THE CHANGE.

...ON THAT NOTE...

WHAT?! NO WAY!!

YES, WAY.

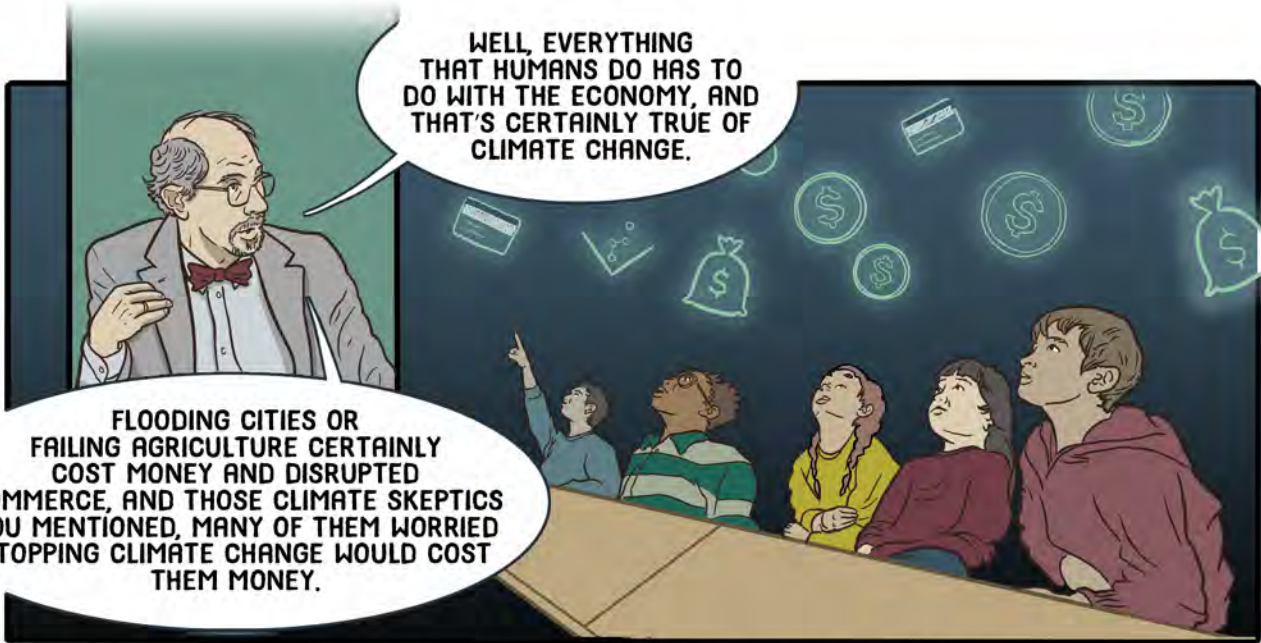


LET ME INTRODUCE PROFESSOR PECUNIA TO EXPLAIN HOW THE IPCC HANDLED THAT.

YOU'RE AN ECONOMIST, RIGHT? WHAT'S AN ECONOMIST DOING INVOLVED WITH THE IPCC?







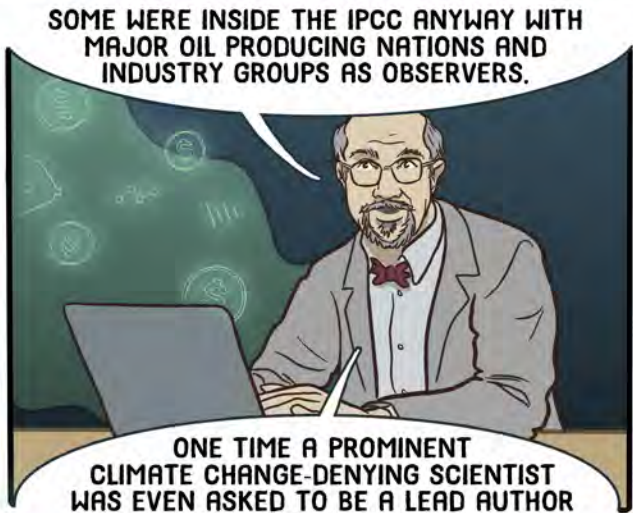
WELL, EVERYTHING THAT HUMANS DO HAS TO DO WITH THE ECONOMY, AND THAT'S CERTAINLY TRUE OF CLIMATE CHANGE.

FLOODING CITIES OR FAILING AGRICULTURE CERTAINLY COST MONEY AND DISRUPTED COMMERCE, AND THOSE CLIMATE SKEPTICS YOU MENTIONED, MANY OF THEM WORRIED STOPPING CLIMATE CHANGE WOULD COST THEM MONEY.



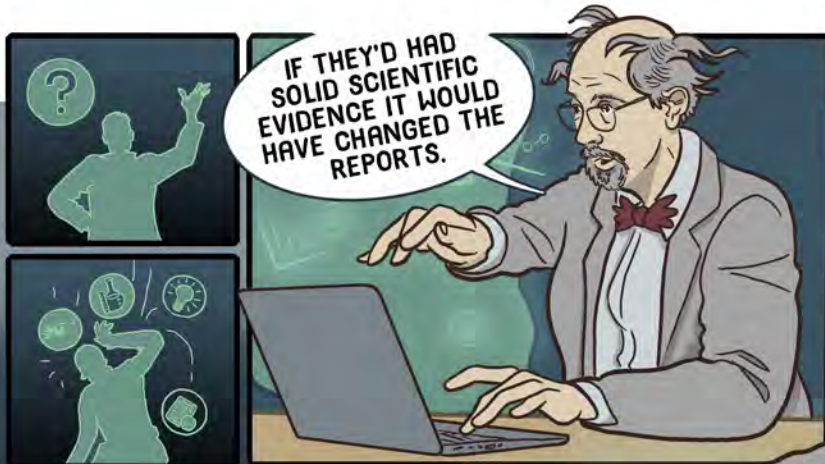
BUT HOW DID WE DEAL WITH PEOPLE THAT WERE SKEPTICAL ABOUT CLIMATE CHANGE, THAT WAS YOUR QUESTION.

WELL, IF THEY HAD EXPERTISE, WE INVITED THEM INTO THE PROCESS.



SOME WERE INSIDE THE IPCC ANYWAY WITH MAJOR OIL PRODUCING NATIONS AND INDUSTRY GROUPS AS OBSERVERS.

ONE TIME A PROMINENT CLIMATE CHANGE-DENYING SCIENTIST WAS EVEN ASKED TO BE A LEAD AUTHOR ON AN IPCC REPORT!



IF THEY'D HAD SOLID SCIENTIFIC EVIDENCE IT WOULD HAVE CHANGED THE REPORTS.

BUT THERE HAD BEEN SUCH RIGOROUS REVIEW OF SO MANY LINES OF EVIDENCE, ALL POINTING TO THE SAME CONCLUSIONS, THAT...

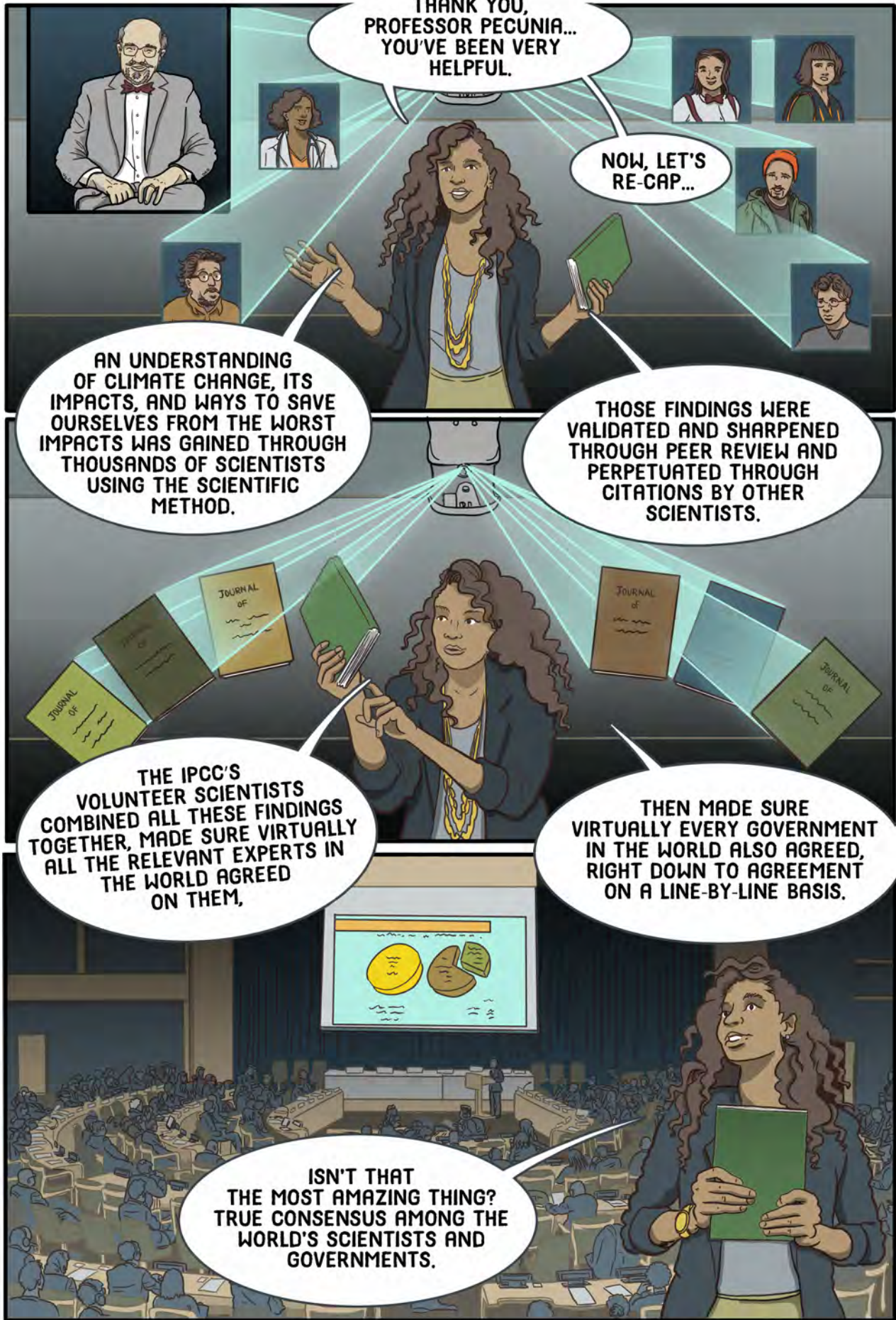


WELL, IT WASN'T ALWAYS EASY, BUT IT MADE THE REPORTS BETTER.

HAVING THEM INVOLVED MADE US THINK HARDER ABOUT WHAT THE RIGHT ANSWERS WERE.







THANK YOU, PROFESSOR PECUNIA... YOU'VE BEEN VERY HELPFUL.

NOW, LET'S RE-CAP...

AN UNDERSTANDING OF CLIMATE CHANGE, ITS IMPACTS, AND WAYS TO SAVE OURSELVES FROM THE WORST IMPACTS WAS GAINED THROUGH THOUSANDS OF SCIENTISTS USING THE SCIENTIFIC METHOD.

THOSE FINDINGS WERE VALIDATED AND SHARPENED THROUGH PEER REVIEW AND PERPETUATED THROUGH CITATIONS BY OTHER SCIENTISTS.

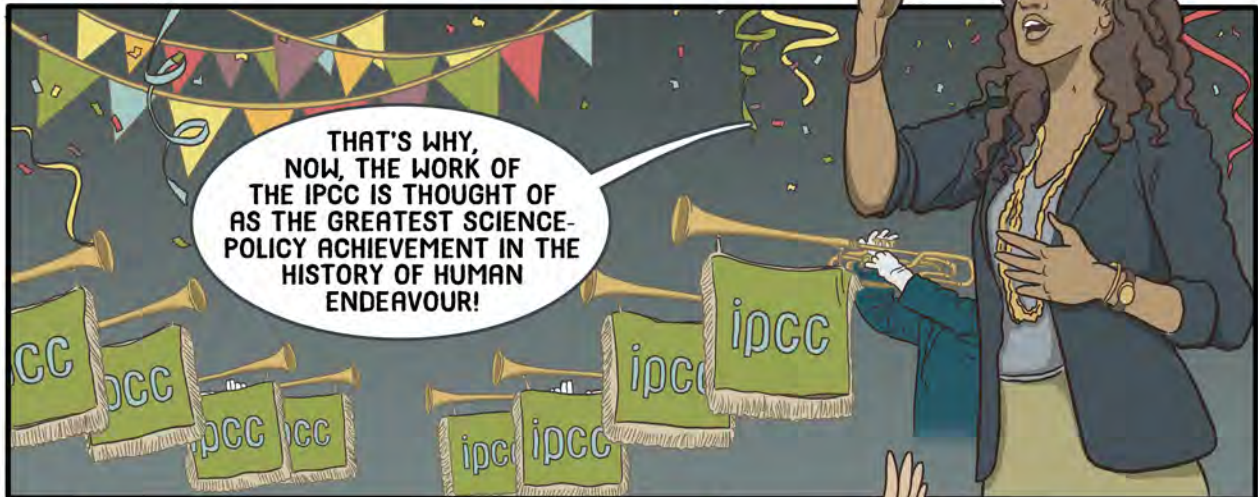
THE IPCC'S VOLUNTEER SCIENTISTS COMBINED ALL THESE FINDINGS TOGETHER, MADE SURE VIRTUALLY ALL THE RELEVANT EXPERTS IN THE WORLD AGREED ON THEM,

THEN MADE SURE VIRTUALLY EVERY GOVERNMENT IN THE WORLD ALSO AGREED, RIGHT DOWN TO AGREEMENT ON A LINE-BY-LINE BASIS.

ISN'T THAT THE MOST AMAZING THING? TRUE CONSENSUS AMONG THE WORLD'S SCIENTISTS AND GOVERNMENTS.



JUST THINK HOW HARD IT WOULD BE FOR ALL OF YOU TO TURN IN ONE ASSIGNMENT, AN ASSIGNMENT THAT YOU REALLY CARED ABOUT, AND THAT YOU HAD TO AGREE, ALL OF YOU, ON EVERY SINGLE WORD, AND BE SURE THAT IT WAS RIGHT.



THAT'S WHY, NOW, THE WORK OF THE IPCC IS THOUGHT OF AS THE GREATEST SCIENCE-POLICY ACHIEVEMENT IN THE HISTORY OF HUMAN ENDEAVOUR!



ANY QUESTIONS?

YES, SOPHIA?



...WHY'D THEY VOLUNTEER?

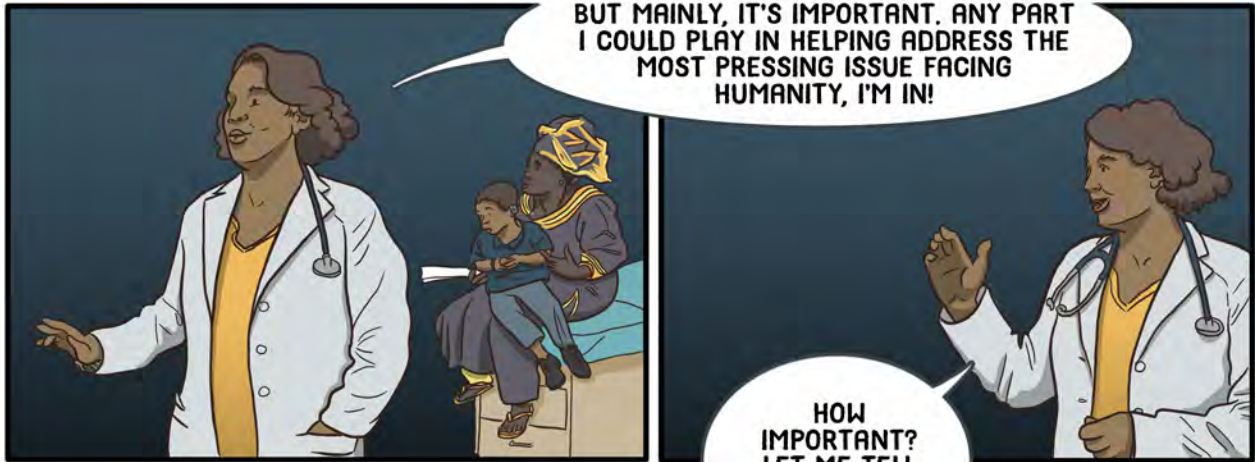


DR. AEDES, SOPHIA HAS ASKED WHY SCIENTISTS VOLUNTEERED.

IT MUST HAVE AMOUNTED TO MANY HUNDREDS OF HOURS, NOT TO MENTION SWEAT AND TEARS.

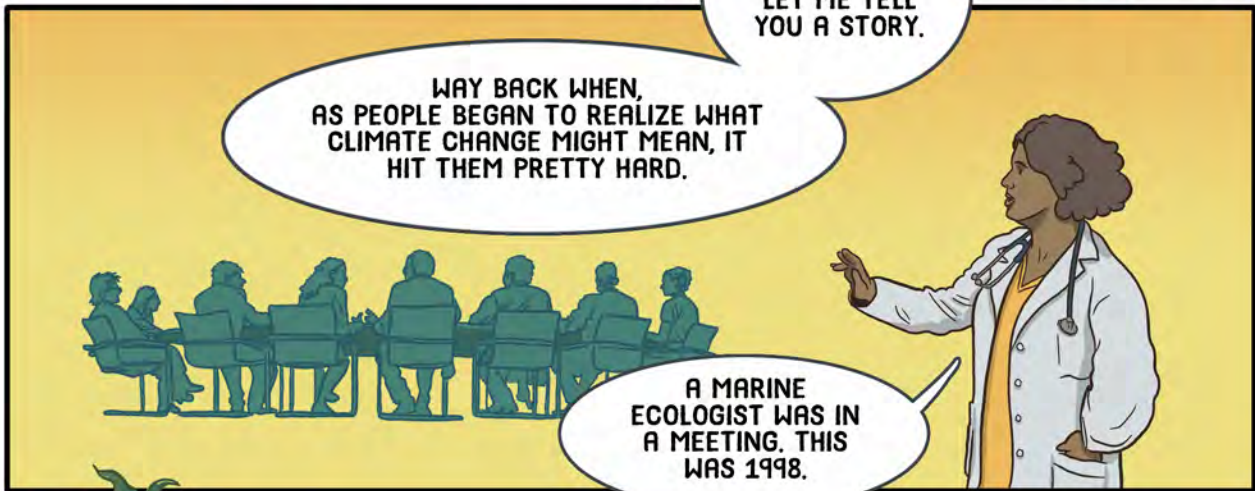
WELL, IT'S IMPORTANT. YOU'VE HEARD ABOUT FLOODED CITIES AND AGRICULTURAL FAILURES THAT COULD HAVE SPOILED FAMINE. ALSO, I GET TO WORK WITH SMART PEOPLE FROM ALL OVER THE WORLD, IT'S PRESTIGIOUS, I LEARN A LOT.





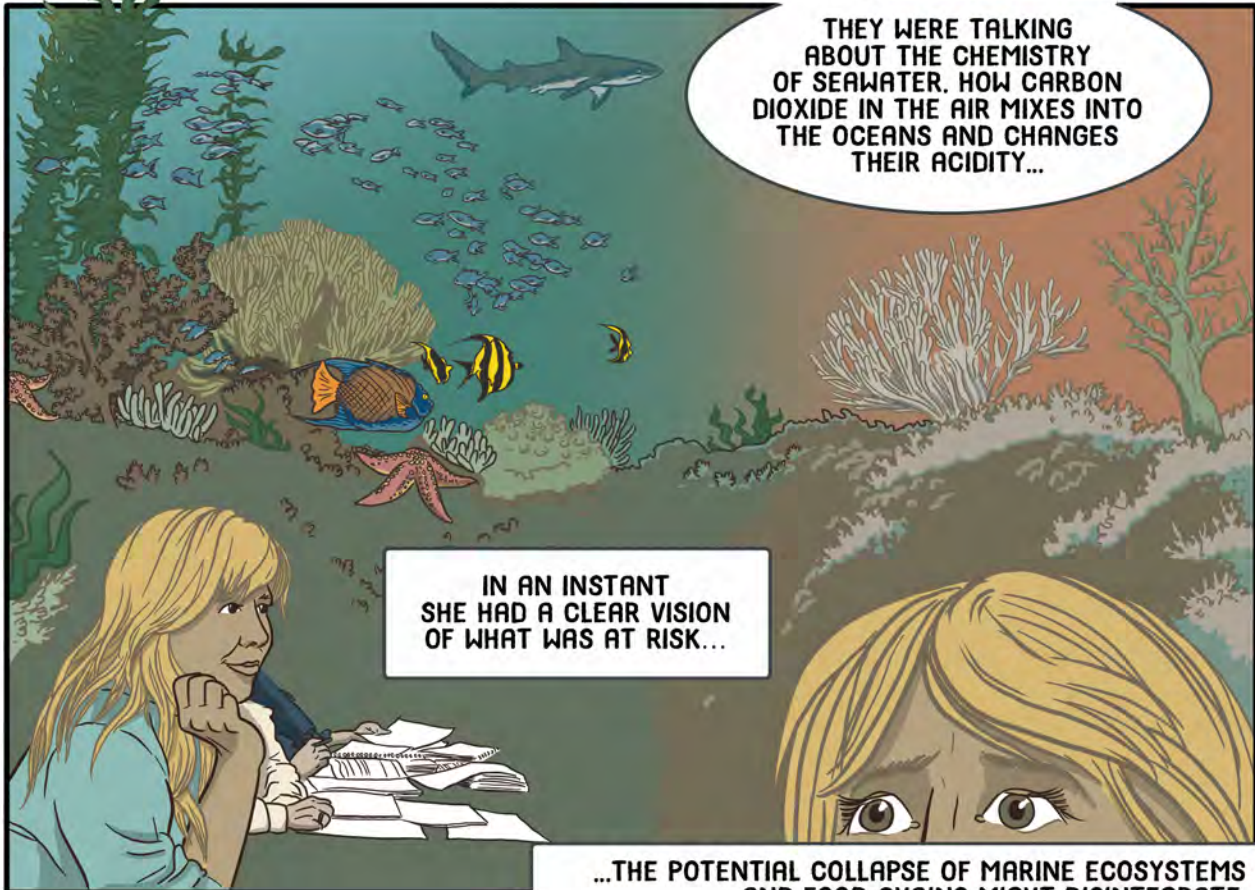
**BUT MAINLY, IT'S IMPORTANT. ANY PART I COULD PLAY IN HELPING ADDRESS THE MOST PRESSING ISSUE FACING HUMANITY, I'M IN!**

**HOW IMPORTANT?  
LET ME TELL  
YOU A STORY.**



**WAY BACK WHEN,  
AS PEOPLE BEGAN TO REALIZE WHAT  
CLIMATE CHANGE MIGHT MEAN, IT  
HIT THEM PRETTY HARD.**

**A MARINE  
ECOLOGIST WAS IN  
A MEETING. THIS  
WAS 1998.**

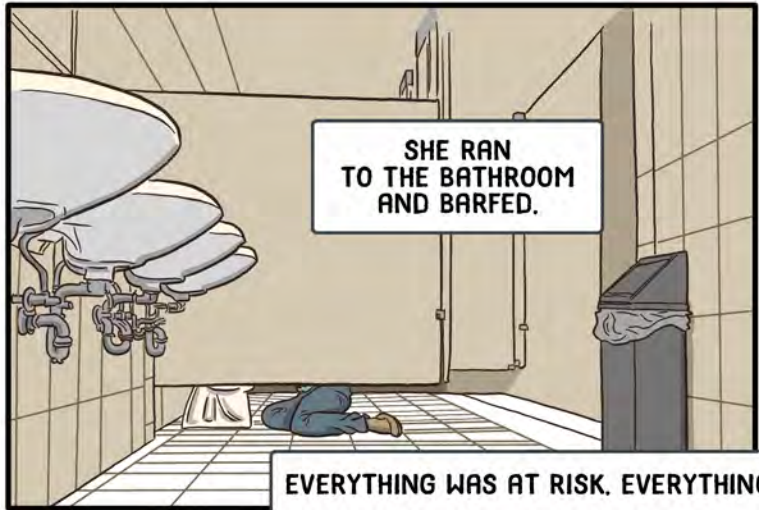


**THEY WERE TALKING  
ABOUT THE CHEMISTRY  
OF SEAWATER. HOW CARBON  
DIOXIDE IN THE AIR MIXES INTO  
THE OCEANS AND CHANGES  
THEIR ACIDITY...**

**IN AN INSTANT  
SHE HAD A CLEAR VISION  
OF WHAT WAS AT RISK...**

**...THE POTENTIAL COLLAPSE OF MARINE ECOSYSTEMS  
AND FOOD CHAINS MIGHT DISINTEGRATE.**





SHE RAN TO THE BATHROOM AND BARFED.

EVERYTHING WAS AT RISK. EVERYTHING!



IT'S NORMAL TO LAUGH WHEN WE'RE FEELING UNCOMFORTABLE. AND IT'S NICE TO THINK THAT WE \*CAN\* LAUGH ABOUT IT NOW!



THE THING IS... IT REALLY WASN'T FUNNY.



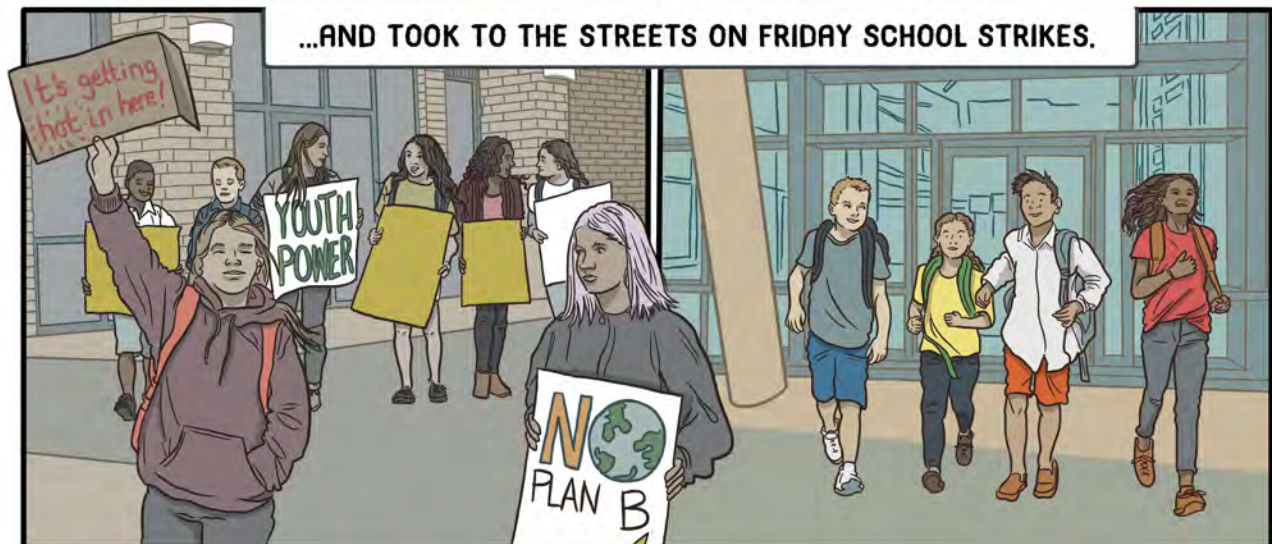
LUCKILY, STUDENTS BACK THEN DID MORE THAN LAUGH AT THE UNCOMFORTABLE SITUATION... THEY SAW IT AS UNBEARABLE. AND SO THEY DID SOMETHING.



THEY LEFT THEIR CLASSROOMS...



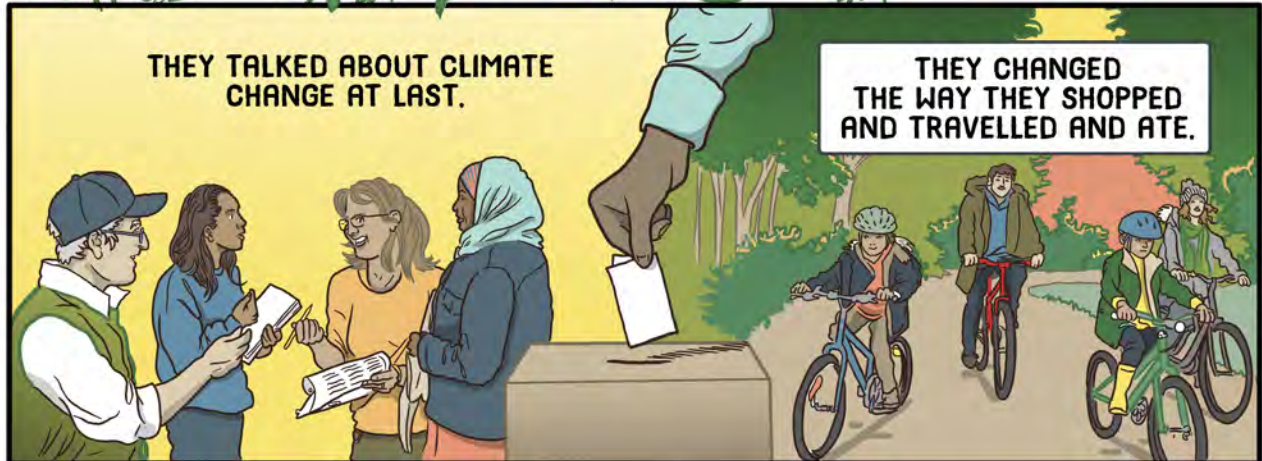
...AND TOOK TO THE STREETS ON FRIDAY SCHOOL STRIKES.



AND GROWNUPS JOINED THEM.







THEY TOLD THEIR POLITICIANS TO ACT. THEY VOTED FOR POLITICIANS WHO ACTED.





AND THEY STOPPED BELIEVING CLIMATE CHANGE DENIERS.



THEY CHANGED THE COURSE OF HISTORY!



BECAUSE WHY?

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BECAUSE IPCC IS A PROJECT OF SUCCESSION, A CANADIAN CHARITY.



## **About the book *Because IPCC***

The book was created by the Canadian charity Succession because so few people recognize the acronym IPCC and even fewer are aware of the rigor of the IPCC's important work.

You are encouraged to share *Because IPCC* far and wide. It isn't just for classrooms and teachers.

There's a free version online at [BecauseIPCC.science](http://BecauseIPCC.science)

We're raising money to pay for printing costs so please consider making a donation at [BecauseIPCC.charity](http://BecauseIPCC.charity)