



UNEP

OZZY OZONE

DEFENDER OF OUR PLANET

unicef



United Nations
Educational, Scientific and
Cultural Organization

UNESCO Associated Network

TUNZA



Multilateral Fund

Implementation of the Montreal Protocol



SCOUTS

Creating a Better World



4. ISSUE:

**OZZY
GOES
ISLAND
HOPPING**

OZZY OZONE

DEFENDER OF OUR PLANET

ACKNOWLEDGEMENTS

THIS CARTOON BOOKLET WAS DEVELOPED BY THE OZONACTION PROGRAMME OF THE DIVISION OF TECHNOLOGY, INDUSTRY AND ECONOMICS OF THE UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP/DIE) UNDER THE MULTILATERAL FUND OF THE MONTREAL PROTOCOL.

HEAD OF
OZONACTION BRANCH:
RAJENDRA M. SHENDE

INFORMATION MANAGER:
JAMES S. CURLIN

PROJECT MANAGER:
ANNE-MARIA FENNER

AUTHOR:
**LUIS BETANZOS
DE MAULEON**

ILLUSTRATOR:
**NIKOS KOUTSIS
WWW.KOUTSIS.COM**

INKING ASSISTANT:
MIKE TORIS

REVIEW PANEL:

ROD ABSON (WORLD ORGANIZATION OF THE SCOUT MOVEMENT), **GUSTAVO ARNIZAUT** (HEAT INTERNATIONAL), **ATUL BAGAI** (UNEP ROAP), **THOMAS CHRISTIAN** (TUNZA YOUTH ADVISOR), **EZRA CLARK** (UNEP DTIE), **BERNARD COMBES** (UNESCO), **ARTIE DUBRIE** (UNEP ROLAC), **DONNA GOODMAN** (UNICEF), **EVA HAMILTON** (ASPNET), **JOHN HAY** (UNFCCC), **SAIJA HEINONEN** (UNEP DTIE), **BLAISE HORISBERGER** (UNEP DTIE), **CECILIA ISLESIAS** (ASOCIACION CIVIL RED AMBIENTAL), **JESSIE JAMES MARCELLONES** (TUNZA YOUTH ADVISOR), **SATWANT KAUR** (UNEP ROAP), **CECILIA KIBARE** (UNEP DCPI), **SHAKIL KUMAR** (GOVERNMENT OF FIJI), **SAMUEL LOYOLA** (TUNZA JUNIOR BOARD), **JEROME MALAVELLE** (UNEP DTIE), **GABRIELA MONTEIRO** (TUNZA YOUTH ADVISOR), **NAYLEE NAGDA** (TUNZA JUNIOR BOARD), **NUJPANIT NARKPITAKS** (UNEP ROAP), **GEDRIC NELOM** (GOVERNMENT OF SURINAME), **THEODORE OBEN** (UNEP DCPI), **FABIENNE PIERRE** (UNEP DTIE), **JEFF PRICE** (UNEP WCMC), **FATHIMATH REEMA** (GOVERNMENT OF MALDIVES), **ARTURO ROMBOLI** (WORLD ORGANIZATION OF THE SCOUT MOVEMENT), **LMA SALDARI** (UNESCO), **MORGAN STRECKER** (UNEP DTIE), **WAYNE TALBOT** (VOLVO ADVENTURE), **DIMITRI TASMALI** (TUNZA YOUTH ADVISOR), **MIKA VANHANEN** (PROGRAMME ENO), **KAVEH ZAHEDI** (UNEP DTIE).

THE OZZY OZONE CHARACTER IS A REGISTERED TRADEMARK OF THE GOVERNMENT OF BARBADOS. UNEP WOULD LIKE TO THANK THE GOVERNMENT OF BARBADOS FOR ITS PERMISSION TO USE THIS CHARACTER.

ISBN: 978-92-807-2912-2

THIS PUBLICATION IS LINKED
TO UNEP'S **TUNZA** STRATEGY
FOR CHILDREN AND YOUTH.

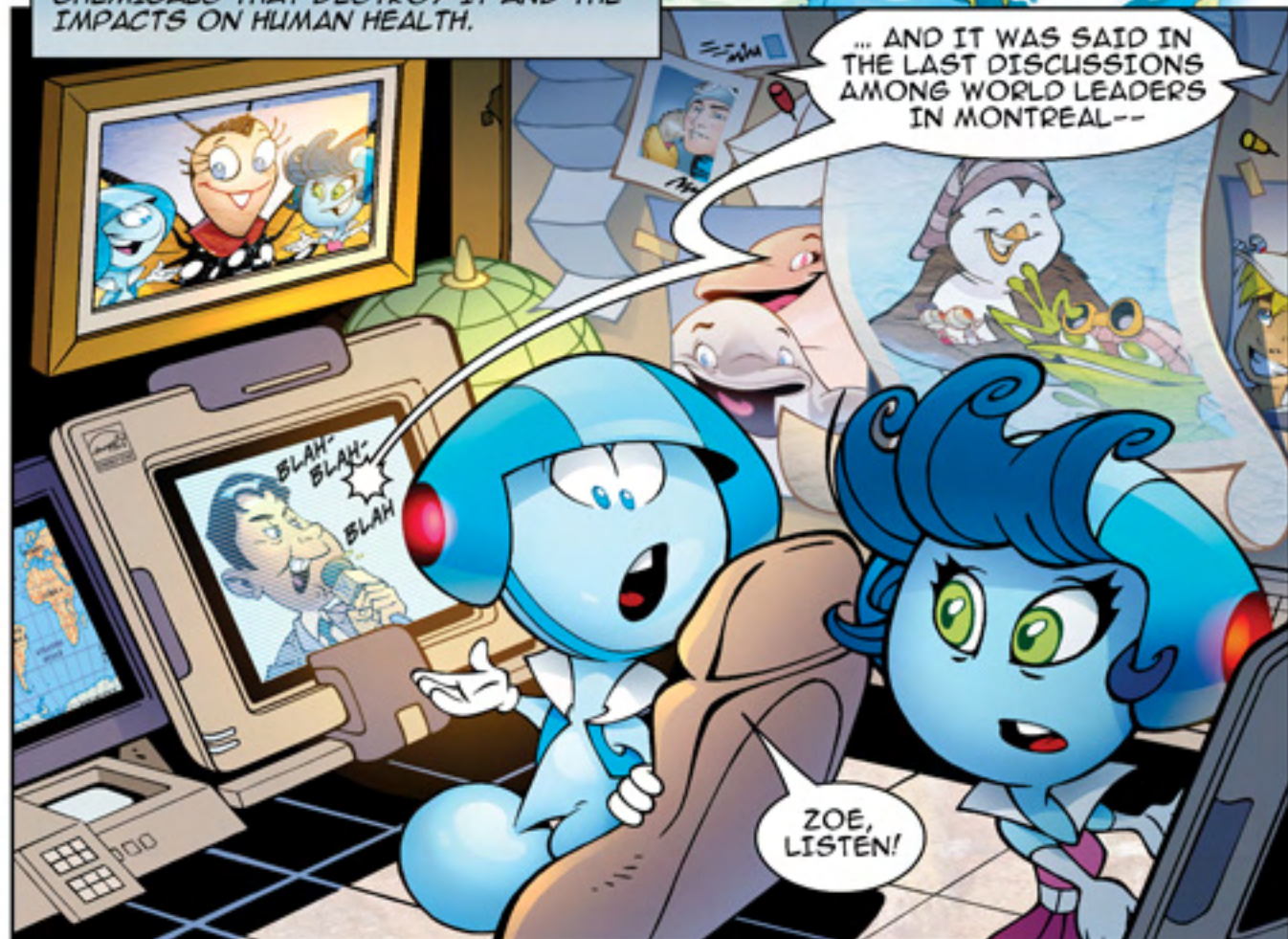


OUR PLANET EARTH IS DEFENDED BY OZZY OZONE AND HIS FRIENDS. THESE SMALL OZONE MOLECULES ARE ALWAYS READY TO PROTECT AND HELP ALL LIVING-BEINGS ON EARTH.

IN THE PAST ADVENTURES OF OZZY OZONE AND FRIENDS, THEY HELPED THE WORLD TO UNDERSTAND THE IMPORTANCE OF THE PROTECTION OF THE OZONE LAYER FROM THE CHEMICALS THAT DESTROY IT AND THE IMPACTS ON HUMAN HEALTH.



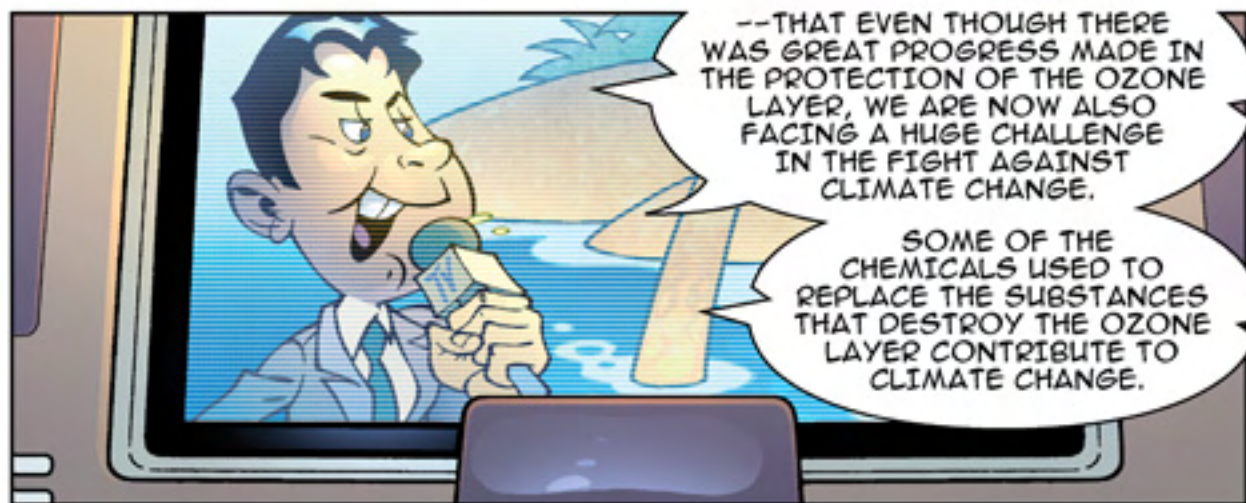
... AND IT WAS SAID IN THE LAST DISCUSSIONS AMONG WORLD LEADERS IN MONTREAL--



ZOE, LISTEN!

--THAT EVEN THOUGH THERE WAS GREAT PROGRESS MADE IN THE PROTECTION OF THE OZONE LAYER, WE ARE NOW ALSO FACING A HUGE CHALLENGE IN THE FIGHT AGAINST CLIMATE CHANGE.

SOME OF THE CHEMICALS USED TO REPLACE THE SUBSTANCES THAT DESTROY THE OZONE LAYER CONTRIBUTE TO CLIMATE CHANGE.





ONE OF THE RESULTS IS THAT SMALL ISLANDS AND LOW LYING COSTAL STATES ARE EXPERIENCING A RISE IN SEA LEVEL--

--WHICH HAS AN IMPACT ON PEOPLE, HEALTH, ECONOMIES AND ECOSYSTEMS...

OZZY, LISTEN! THIS IS WHAT WE LEARNED WHEN WE WENT TO THE POLES. WE HAVE NO TIME--



--WE NEED TO GO AND HELP THESE PEOPLE IN THE SMALL ISLANDS. PUT ON YOUR SWIMMING SUIT.

YES, I WILL CALL MY FRIEND ALIDA THE LEATHERBACK TURTLE, SHE LIVES IN THE CARIBBEAN.



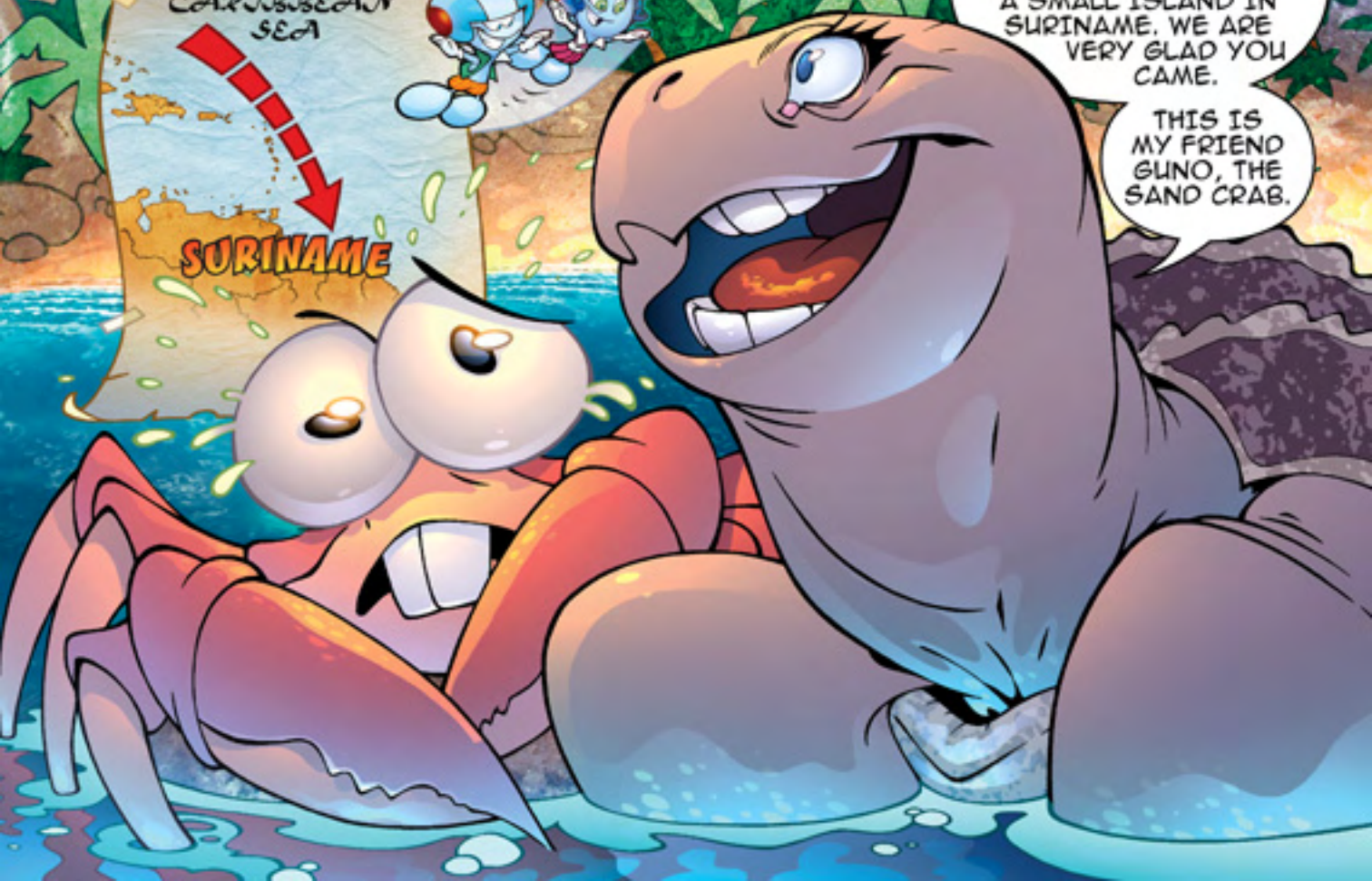
CARIBBEAN SEA

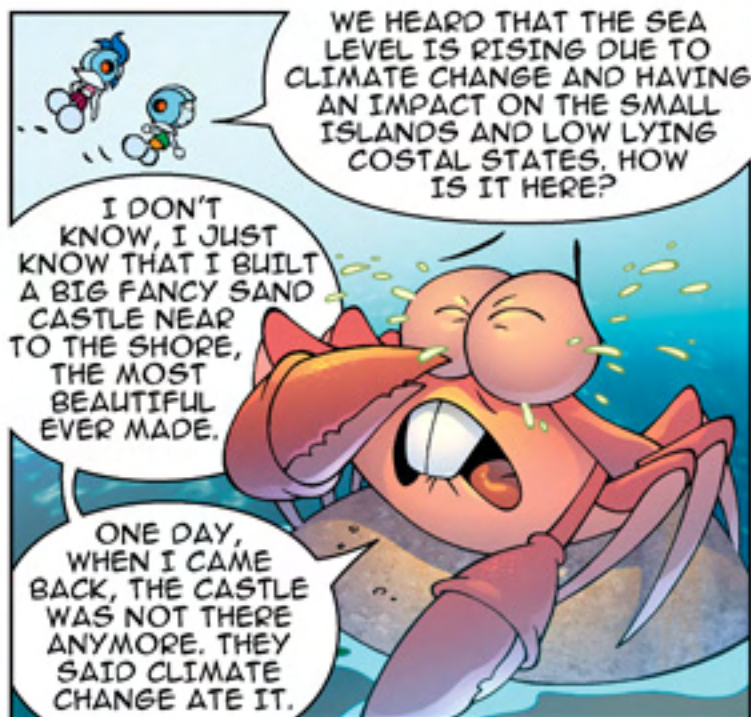
SURINAME



THANKS FOR CALLING OZZY AND ZOE AND WELCOME TO PAPEGAAT, A SMALL ISLAND IN SURINAME. WE ARE VERY GLAD YOU CAME.

THIS IS MY FRIEND GUNO, THE SAND CRAB.





WE HEARD THAT THE SEA LEVEL IS RISING DUE TO CLIMATE CHANGE AND HAVING AN IMPACT ON THE SMALL ISLANDS AND LOW LYING COSTAL STATES. HOW IS IT HERE?

I DON'T KNOW, I JUST KNOW THAT I BUILT A BIG FANCY SAND CASTLE NEAR TO THE SHORE, THE MOST BEAUTIFUL EVER MADE.

ONE DAY, WHEN I CAME BACK, THE CASTLE WAS NOT THERE ANYMORE. THEY SAID CLIMATE CHANGE ATE IT.



SINCE THEN GUNO HAS NOT STOPPED CRYING. NOTHING CAN CONSOLE HIM...

BUT OZZY, HERE IN PAPEGAAT, WE HAVE A LOW LYING COASTAL LINE.



OZZY, ZOE, PLEASE TELL ME WHO THIS FAMOUS CLIMATE CHANGE IS AND WHY HE DESTROYED MY CASTLE.

NO, GUNO--

--CLIMATE CHANGE ISN'T A PERSON OR AN ANIMAL; IT IS ONE OF THE MOST CRITICAL ENVIRONMENTAL ISSUES OF OUR TIME. IT IS THE RISE OF THE EARTH'S SURFACE TEMPERATURE CAUSED BY THE INCREASED CONCENTRATION OF **GREENHOUSE GASES** IN THE **ATMOSPHERE**.



WHAT ON EARTH ARE **GREENHOUSE GASES**?

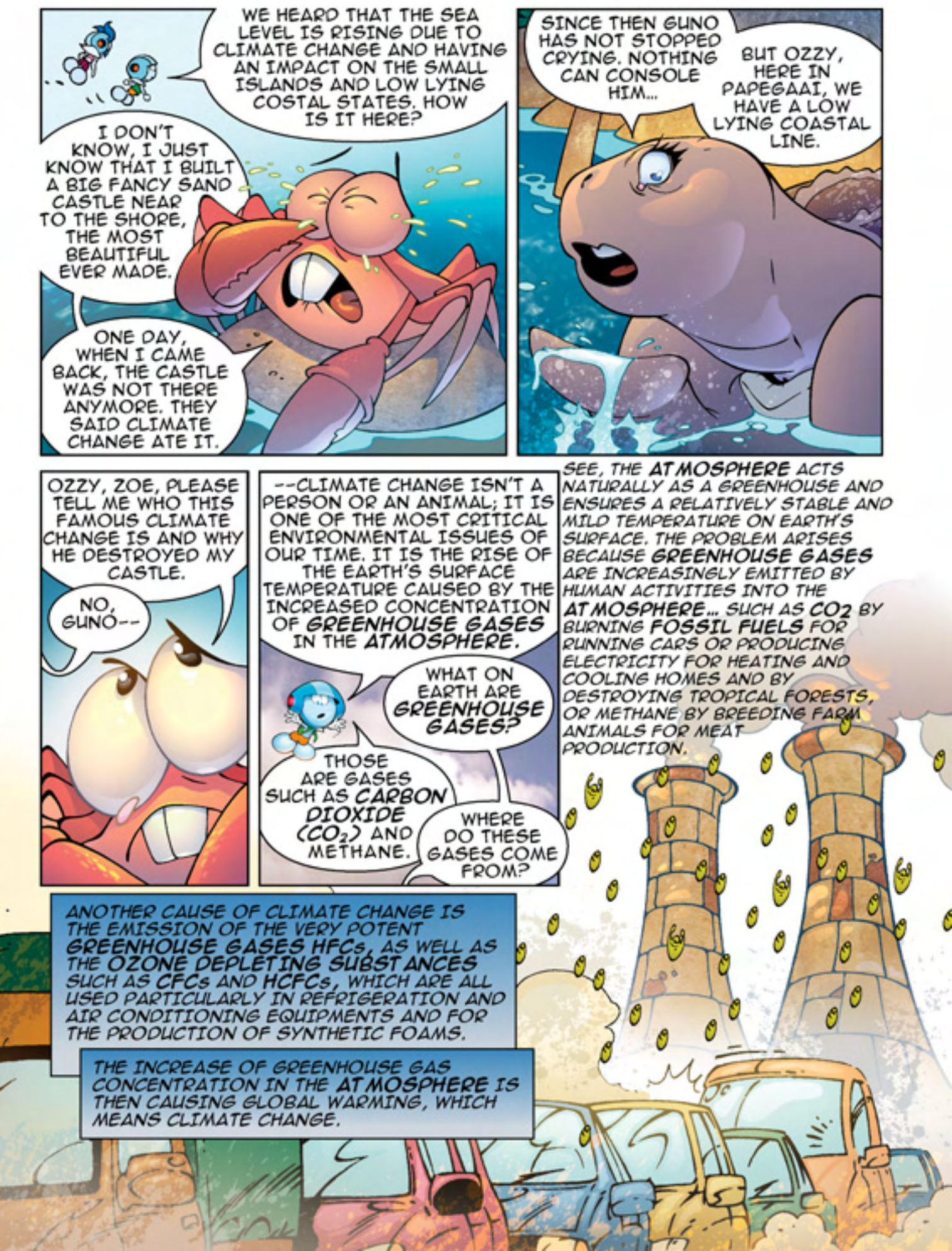
THOSE ARE GASES SUCH AS **CARBON DIOXIDE (CO₂)** AND **METHANE**.

WHERE DO THESE GASES COME FROM?

SEE, THE **ATMOSPHERE** ACTS NATURALLY AS A **GREENHOUSE** AND ENSURES A RELATIVELY STABLE AND MILD TEMPERATURE ON EARTH'S SURFACE. THE PROBLEM ARISES BECAUSE **GREENHOUSE GASES** ARE INCREASINGLY EMITTED BY HUMAN ACTIVITIES INTO THE **ATMOSPHERE**... SUCH AS **CO₂** BY BURNING **FOSSIL FUELS** FOR RUNNING CARS OR PRODUCING ELECTRICITY FOR HEATING AND COOLING HOMES AND BY DESTROYING TROPICAL FORESTS, OR **METHANE** BY BREEDING FARM ANIMALS FOR MEAT PRODUCTION.

ANOTHER CAUSE OF CLIMATE CHANGE IS THE EMISSION OF THE VERY POTENT **GREENHOUSE GASES HFCs**, AS WELL AS THE **OZONE DEPLETING SUBSTANCES** SUCH AS **CFCs** AND **HCFCs**, WHICH ARE ALL USED PARTICULARLY IN REFRIGERATION AND AIR CONDITIONING EQUIPMENTS AND FOR THE PRODUCTION OF SYNTHETIC FOAMS.

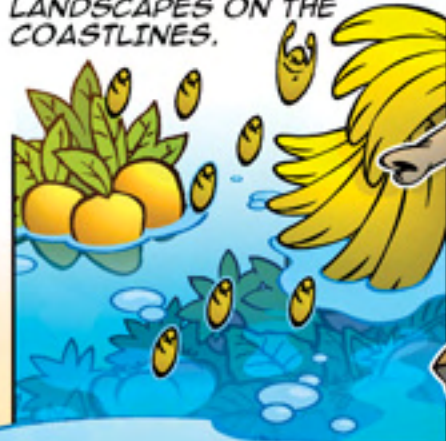
THE INCREASE OF **GREENHOUSE GAS CONCENTRATION** IN THE **ATMOSPHERE** IS THEN CAUSING **GLOBAL WARMING**, WHICH MEANS **CLIMATE CHANGE**.



WITH THE CURRENT CONCENTRATION OF **GREENHOUSE GASES**, WE KNOW THAT CLIMATIC CHANGE IS OCCURRING, HAVING AN IMPACT ON THE ENVIRONMENT. THIS WILL AFFECT FOOD PRODUCTION, RAISE THE SEA-LEVELS AND MODIFY LIFE AND LANDSCAPES ON THE COASTLINES.

THIS IS THE CASE IN PAPEGAAI IN SURINAME, DUE TO ITS LOW-LYING COASTAL ZONE; THE SEA LEVEL RISE IS DROWNING LARGE PARTS OF THE COUNTRY, INCREASING NATURAL DISASTERS, SPECIES EXTINCTION, DISPLACING OF POPULATION AND THE SPREAD OF SOME DISEASES.

MAYBE THIS IS WHAT HAPPENED WITH YOUR CASTLE GUNO, THE SEA LEVEL RISE THAT WE ARE EXPERIENCING HERE PROBABLY SANK YOUR CASTLE.



DON'T WORRY, ALDO! I WILL GO DIVING AND TRY TO SEE IF IT IS STILL THERE. HOLD ON, WE WILL BRING IT BACK FOR YOU.



PLIP
PUP



HELLO RONALDO, HAVE YOU SEEN A BIG AND BEAUTIFUL SAND CASTLE AROUND?

OH, YES! WE WERE LIVING THERE FOR A WHILE. COME THIS WAY AND YOU WILL FIND IT...



WHAT IS THIS RONALDOO?

AH, THAT WAS ONCE A BEAUTIFUL CORAL REEF. IT WAS THE HOME OF THOUSANDS OF MY FRIENDS, BUT RECENTLY IT BECAME WHITE AS IF IT WAS MADE OF STONE.

WE COULD NOT LIVE THERE ANYMORE AND WE HAD TO MOVE TO ANOTHER PLACE NEAR TO THE CASTLE.

THIS IS CALLED CORAL BLEACHING--

--IT HAPPENS WHEN THE CORALS LOSE THEIR ALGAE THAT SUPPLY THE FOOD AND COLOR.

DON'T TELL ME THAT THIS ALSO COMES FROM CLIMATE CHANGE!

SEE, IRRESPONSIBLE FISHING PRACTICES SUCH AS OVERFISHING AND POLLUTION PLAY A PART, BUT THE BIGGEST THREAT IS THAT OCEANS ARE GETTING WARMER. WATER THAT IS WARMER THAN NORMAL CAN CAUSE DEADLY CORAL BLEACHING.

THE OCEANS HAVE ALSO BECOME MORE ACID AS THEY HAVE ABSORBED A BIG PART OF CARBON DIOXIDE AND THE CORALS SEEM NOT TO BE ABLE TO COPE WELL.

ALSO, OZONE LAYER DEPLETION WHICH CAUSES HIGHER LEVELS OF ULTRA VIOLET (UV) RAYS CAN CONTRIBUTE TO CORAL REEF DAMAGE.

WOW, HOW BAD IS THE SITUATION?

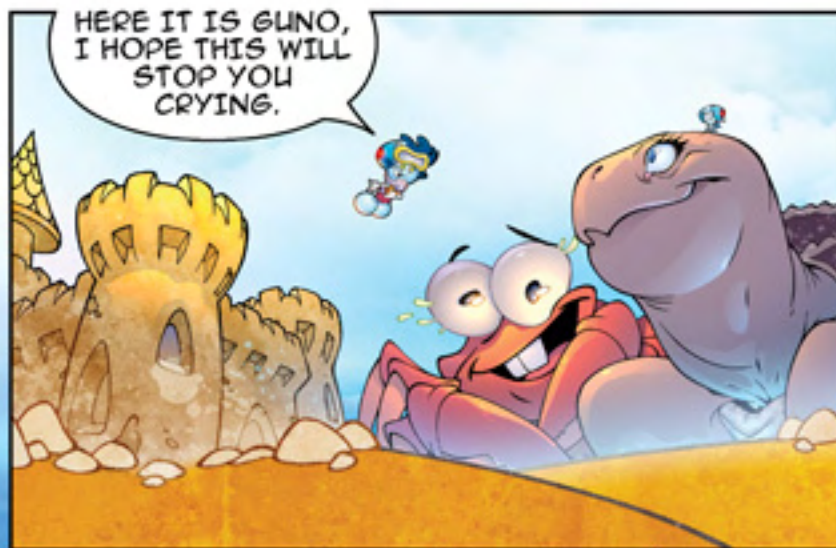
LAST YEAR, WARMING IN THE CARIBBEAN SEA BLEACHED MORE THAN 90% OF THE CORAL ON MANY REEFS. THIS IS 9 OUT OF 10! AS YOU CAN SEE, THE SITUATION IS CRITICAL.

THERE ARE MORE THAN 50 SMALL ISLANDS IN THE WORLD WHICH SHARE SIMILAR PROBLEMS AND AN INCREASE IN THE NUMBER OF NATURAL DISASTERS. NOW CLIMATE CHANGE IS MAKING THE PROBLEMS WORSE.

THE EFFECT OF GLOBAL WARMING IS EVIDENT NOT ONLY IN THE POLES, BUT ALSO HERE ON THE COASTLINES.

MANY AREAS ARE EXPERIENCING A FASTER TEMPERATURE RISE.

THE CASTLE IS HERE; LET'S TAKE IT BACK TO GUNO.



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_10727

