



CLIMATE CHANGE IS A SHARED RESPONSIBILITY

BY NORTHLAKES HIGH SCHOOL
FOR THE ARCHIBULL PRIZE 2016



FORWARD

THIS BOOK HAS BEEN CREATED BY
THE STUDENTS AT NORTHLAKES
HIGH SCHOOL FOR THE
ARCHIBULL PRIZE 2016.

THE BOOK IS DESIGNED AS
A LEARNING TOOL FOR
PRIMARY SCHOOL STUDENTS
TO RAISE AWARENESS OF
THE IMPACTS OF CLIMATE CHANGE
ON OUR FOOD PRODUCTION
SYSTEMS.

THE BOOK SHOWS HOW AUSTRALIAN
FARMERS ARE MANAGING THE RISK
AND REDUCING THEIR FOOTPRINT
ON THE PLANET.

THE BOOK ALSO SHOWS HOW WE AS
INDIVIDUALS AND AS A COMMUNITY
CAN RISE TO THE CHALLENGES THAT
THE IMPACTS OF CLIMATE CHANGE
ARE HAVING AND MITIGATE THE RISK.



THE EVIDENCE IS CLEAR AND GROWING: HUMAN-INDUCED CLIMATE CHANGE IS HAPPENING NOW. IT IS NOT JUST SOMETHING FOR FUTURE DECADES. AND AUSTRALIA AND AUSTRALIAN AGRICULTURE IN PARTICULAR ARE PROJECTED TO BE AMONGST THE HARDEST HIT. THE VAST MAJORITY OF OUR FARMERS ARE ALREADY RESPONDING TO THESE CLIMATE CHANGES, ONCE AGAIN DEMONSTRATING THEIR INNOVATIVE CAPACITY. SOME OF THEM ARE ALSO TAKING ACTION TO REDUCE THEIR GREENHOUSE GAS EMISSIONS – AND OFTEN MAKING THEIR FARMS MORE PROFITABLE AND SUSTAINABLE AT THE SAME TIME. SO IT IS STRANGE TO SEE THAT AUSTRALIA FARMERS ARE FOUR TIMES MORE LIKELY THAN THE POPULATION AVERAGE TO SAY THAT HUMAN-INDUCED CLIMATE CHANGE IS NOT HAPPENING. CLEARLY THE COMMUNICATION CHANNELS ARE NOT WORKING AS WELL AS THEY COULD BE. AND THIS APPLIES TO OTHER PARTS OF OUR SOCIETY TOO. SO, WHEN I READ THIS MARVELLOUS PICTURE-BOOK PREPARED BY HIGH SCHOOL STUDENTS I SAID TO MYSELF, ‘WOW’; THEY PLACE SCIENCE IN LANGUAGE AND IMAGES THAT EVERYONE CAN RELATE TO; THAT HAVE AN IMMEDIATE EMOTIONAL IMPACT. THAT CAN START DIFFERENT CONVERSATIONS. THAT CAN INCREASE UNDERSTANDING OF THE ISSUE IN WAYS THAT FOSTERS ACTION, NOT DESPAIR. AND THAT HIGHLIGHT THE POSITIVE CONTRIBUTIONS AND ACTIONS THAT AUSTRALIAN FARMERS CAN AND ARE MAKING TO THE GLOBAL CHALLENGES OF CLIMATE CHANGE AND FOOD SECURITY. MOST IMPORTANTLY, IN PREPARING THIS PICTURE-BOOK MOSTLY FOR PRIMARY SCHOOL STUDENTS, THEY ARE ENGAGING OUR YOUNGEST PEOPLE IN ISSUES THAT WILL BE MORE AND MORE IMPORTANT IN THEIR FUTURE. THEY MAY BE ONLY 20% OF AUSTRALIA’S POPULATION NOW BUT THEY ARE 100% OF OUR FUTURE. SO I COMMEND THIS PICTURE BOOK: A BRIGHT WINDOW INTO OUR PRESENT AND OUR FUTURE.”

PROF MARK HOWDEN
DIRECTOR, CLIMATE CHANGE INSTITUTE
VICE CHAIR, IPCC WORKING GROUP II
HONORARY PROFESSOR, SCHOOL OF LAND AND ENVIRONMENT, THE UNIVERSITY OF MELBOURNE,
VICTORIA, 3010, AUSTRALIA
UNIVERSITY OF ARIZONA, DISTINGUISHED ADAPTATION SCHOLAR



**THIS WONDERFUL BOOK SHOWCASES THE
CREATIVITY AND SINCERITY WITH WHICH YOUNG
AUSTRALIANS APPROACH THE CHALLENGE OF
CLIMATE CHANGE.**

**IF ONLY OUR POLITICAL AND BUSINESS LEADERS
HAD AS CLEAR AN UNDERSTANDING OF THE
PROBLEM AND SOLUTIONS AS THE STUDENTS WHO
CREATED THIS BOOK, AUSTRALIA WOULD HAVE
MADE A LOT MORE PROGRESS REDUCING OUR
CARBON POLLUTION.**

**I COMMEND ALL THE STUDENTS AND TEACHERS
INVOLVED, AS WELL AS THE ARCHIBULL PRIZE
PROGRAM, WHICH CONTINUES TO EXCEL AT
CREATING A POWERFUL FRAMEWORK WITHIN
WHICH STUDENTS CAN UNDERTAKE A LIFE-
CHANGING LEARNING JOURNEY.”**

**ANNA ROSE
Co-FOUNDER, AUSTRALIAN YOUTH CLIMATE COALITION
2016 AUSTRALIAN GEOGRAPHIC CONSERVATIONIST OF THE YEAR
FORMER PRIME MINISTER'S YOUNG ENVIRONMENTALIST OF THE YEAR**

“

IT IS NOW CLEAR THAT CLIMATE CHANGE WILL HAVE A PROFOUND EFFECT ON THE PLANET AND ESPECIALLY ON OUR FOOD PRODUCTION SYSTEMS. AUSTRALIAN FARMERS ALREADY HAVE TO COPE WITH THE MOST CLIMATICALLY VARIABLE COUNTRY ON THE PLANET AND CLIMATE CHANGE ADDS FURTHER TO THIS COMPLEXITY. HOWEVER, AROUND THE WORLD GOVERNMENTS HAVE BEEN FAR TOO SLOW TO RESPOND EFFECTIVELY, MAINLY DRIVEN BY THEIR PERCEPTIONS OF THEIR VOTERS' VIEW. THIS MEANS WE NEED TO URGENTLY ENGAGE ALL SECTORS OF SOCIETY TO CHANGE OUR ATTITUDES AND CULTURE ABOUT RESOURCE-USE AND THEREBY RAISE THE URGENCY FOR GOVERNMENTS TO ACT. THIS BOOK IS AN EFFECTIVE MEANS TO RAISE AWARENESS IN AN IMPORTANT DEMOGRAPHIC, THE YOUNG SCHOLARS OF TODAY THAT WILL BE THE KEY INFLUENCERS AND DECISION MAKERS OF THE FUTURE. THIS BOOK DOES AN OUTSTANDING JOB OF SIMPLIFYING AN EXTREMELY COMPLEX SUBJECT, INTO WORDS AND IMAGES THAT SHOULD CAPTURE THE ATTENTION OF PRIMARY SCHOOL STUDENTS. HOPEFULLY THROUGH THIS, TOGETHER WITH OTHER MECHANISMS, THE NEXT GENERATION WILL NOT COMPOUND THE MISTAKES AND EXCESSES OF THE CURRENT GENERATION. I STRONGLY SUPPORT THIS BOOK AS A RESOURCE TO START THE PROCESS OF CHANGE FOR THE GOOD OF OUR FUTURE.”

PROFESSOR RICHARD ECKARD
PRIMARY INDUSTRIES CLIMATE CHALLENGES CENTRE
THE UNIVERSITY OF MELBOURNE

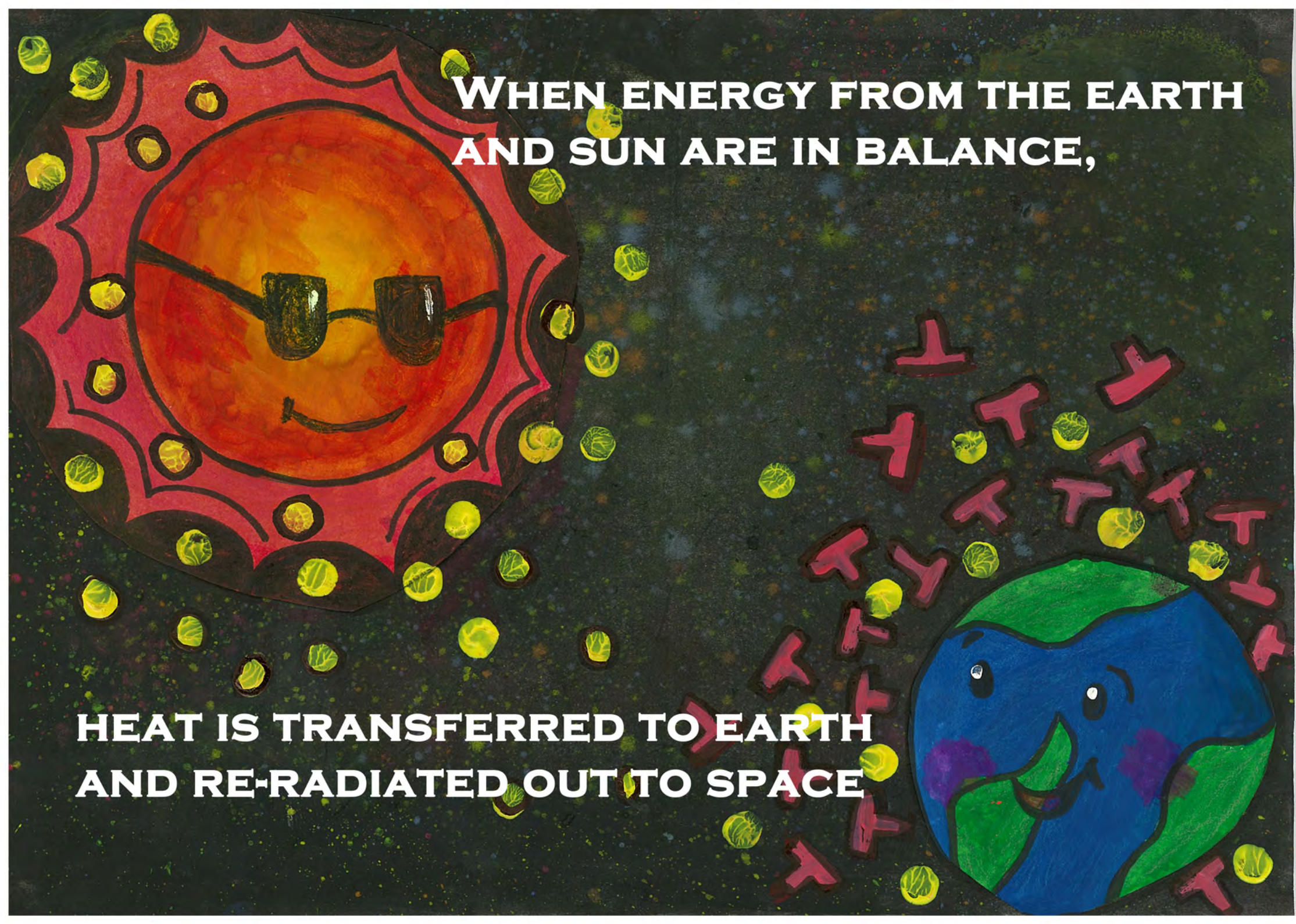




**HERE ARE YOU AND ME,
CLIMATE CHANGE IS A SHARED RESPONSIBILITY.**

**WHEN ENERGY FROM THE EARTH
AND SUN ARE IN BALANCE,**

**HEAT IS TRANSFERRED TO EARTH
AND RE-RADIATED OUT TO SPACE**



**EARTH IS WRAPPED IN A
BLANKET OF GREENHOUSE GASES**

A hand-drawn illustration of the Earth, depicted with blue oceans and green landmasses. The Earth is wrapped in a thick, red blanket that covers its entire surface. The blanket is decorated with several small, dark, T-shaped patterns. The background is a dark, textured grey with scattered yellow and green speckles, suggesting a night sky or a microscopic view of the atmosphere. The overall style is simple and illustrative, using thick lines and a limited color palette.

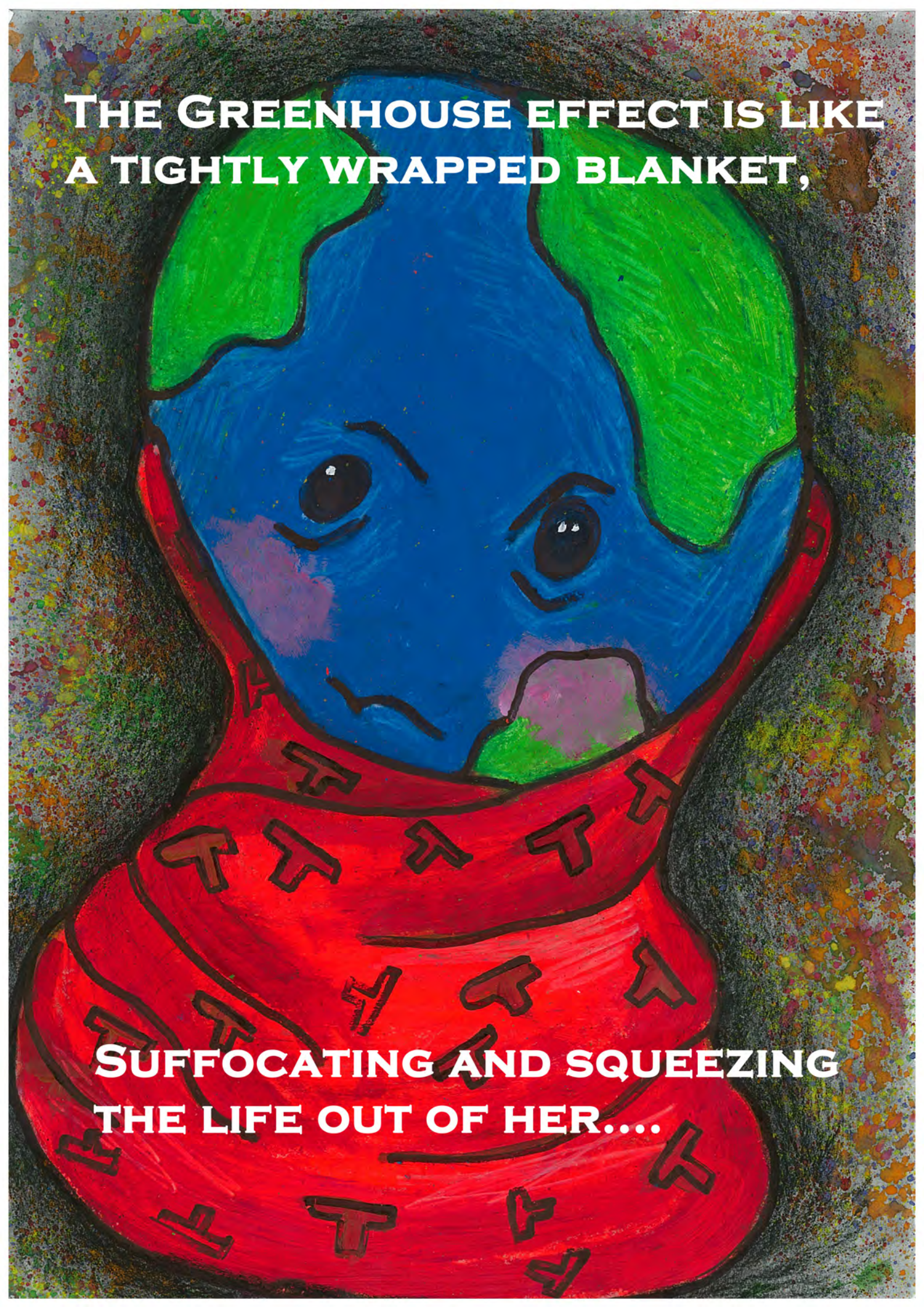
**WHICH SLOW DOWN THE HEAT
LOSS AND KEEP US WARM.**



**WHEN GLOBAL WARMING TAKES HOLD,
THE HEAT CAN'T ESCAPE AS EASILY.
THE EARTH FEELS UNWELL...**

**THE GREENHOUSE EFFECT IS LIKE
A TIGHTLY WRAPPED BLANKET,**

**SUFFOCATING AND SQUEEZING
THE LIFE OUT OF HER....**





**THE GREENHOUSE EFFECT MAKES THE EARTH
FEEL SICK.**

**LIKE WHEN YOU HAVE A FEVER AND YOU ARE
DIZZY AND OFF BALANCE.**



**CLIMATE CHANGE HAS BEEN AROUND FOREVER;
THERE ARE NATURAL AND MAN-MADE CAUSES.**



**IF WE LET GLOBAL WARMING RUN
OUT OF CONTROL TEMPERATURES
WILL RISE CREATING WIDE SPREAD
DROUGHT**

**RISING TEMPERATURES WILL HAVE
AN IMPACT ON ALL OF US!**

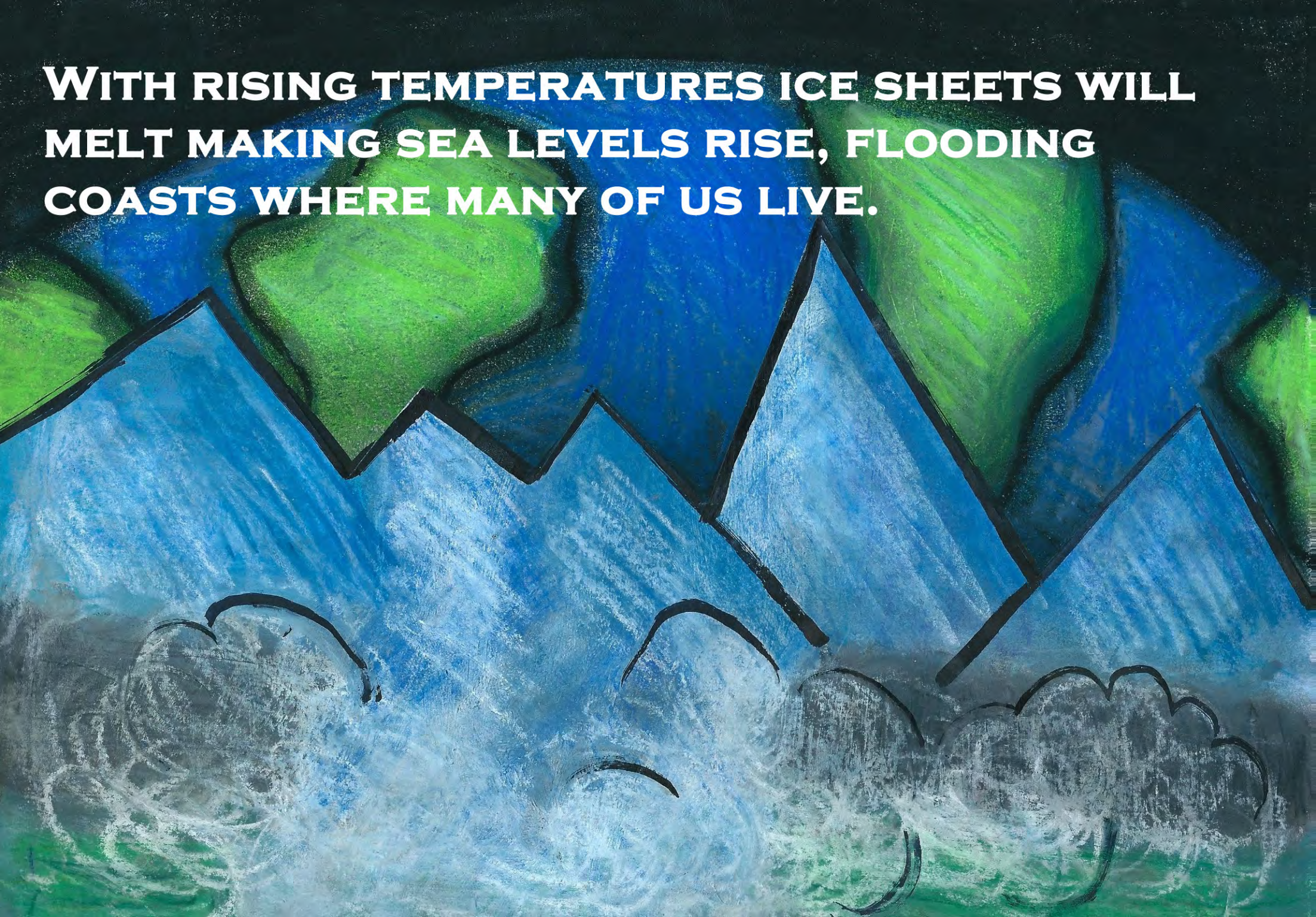


**ERUPTING VOLCANOES REDUCE GLOBAL WARMING.
SULPHUR RELEASED TENDS TO REFLECT SUNLIGHT
BACK INTO SPACE CAUSING THE PLANET TO COOL.**

An abstract painting depicting a bushfire. The top half of the image is dominated by vibrant, warm colors like orange, red, and yellow, suggesting intense flames and smoke. The bottom half is characterized by dark, swirling black and grey tones, representing thick smoke and the charred remains of the landscape. Vertical streaks of red and yellow paint run down the sides, adding a sense of movement and intensity to the composition.

**BUSHFIRES WILL BECOME MORE FREQUENT
AND DEVASTATING!**

**WITH RISING TEMPERATURES ICE SHEETS WILL
MELT MAKING SEA LEVELS RISE, FLOODING
COASTS WHERE MANY OF US LIVE.**



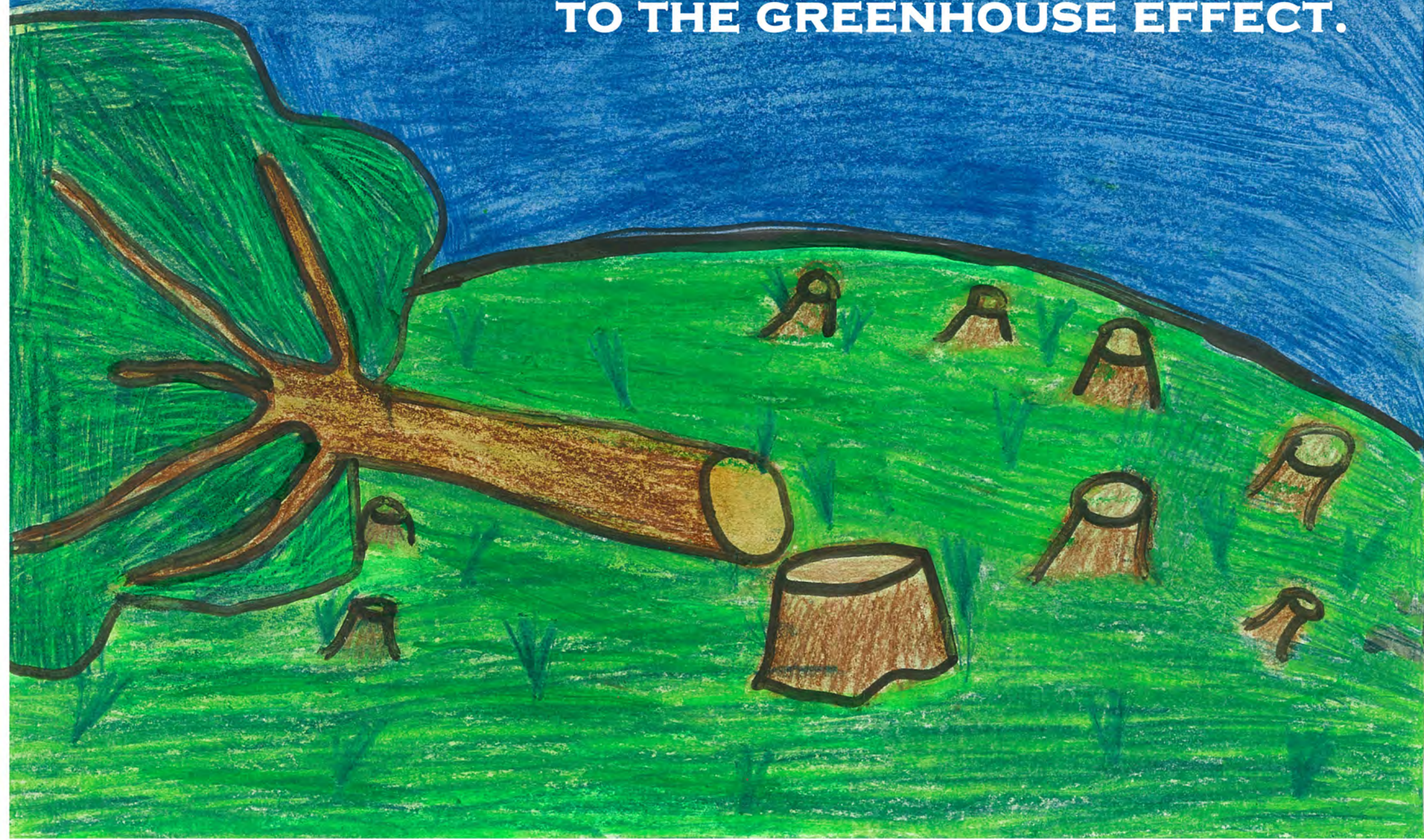


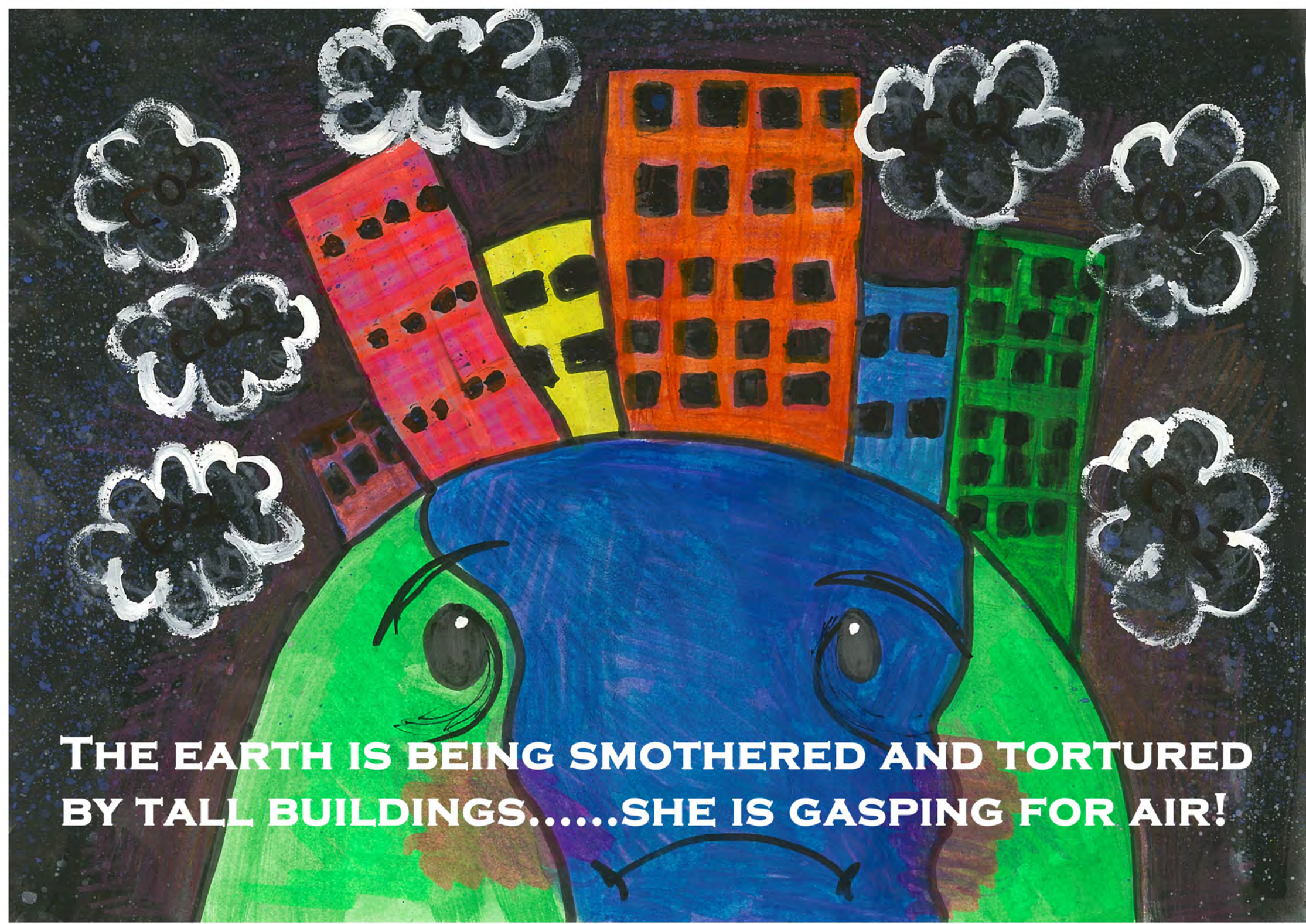
**ANIMALS WILL LOSE THEIR HABITAT AND
BECOME EXTINCT!**

**OUR MODERN WAY OF LIFE IS ACCELERATING
CLIMATE CHANGE AS FAST AS A RED FERRARI!**



DEFORESTATION RELEASES CO_2 INTO THE
ATMOSPHERE CONTRIBUTING
TO THE GREENHOUSE EFFECT.





**THE EARTH IS BEING SMOTHERED AND TORTURED
BY TALL BUILDINGS.....SHE IS GASPING FOR AIR!**



**SHE IS BEING TAKEN OVER BY MODERN
TRANSPORT!**

A painting of a dead fish in a polluted sea. The fish is grey and lifeless, with a large 'X' on its side and several small, dark, curved marks along its back, possibly representing scales or wounds. It is surrounded by a sea of swirling blue and green colors, with thick black outlines separating the different areas, suggesting a polluted or fragmented environment. The overall style is expressive and somewhat abstract.

**POLLUTION IS FILLING OUR WATERWAYS,
SEA TEMPERATURES ARE RISING AND CREATURES
ARE DYING.**



**OUR FUTURE LOOKS BLEAK IF WE DON'T LOOK
AFTER OUR ENVIRONMENT .**



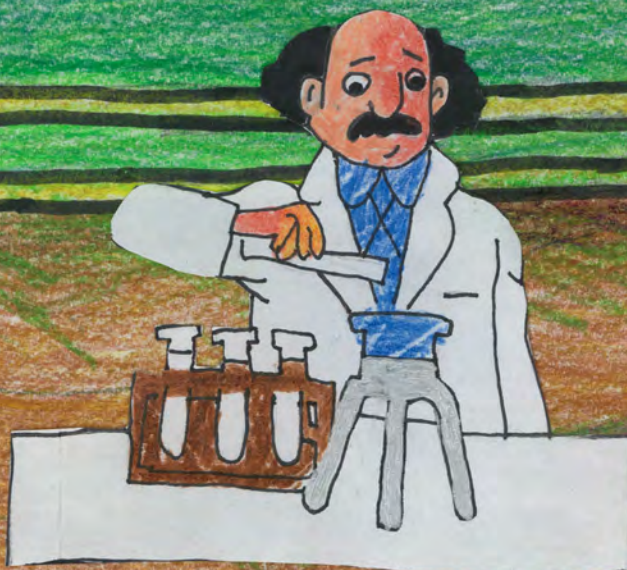
**USING RENEWABLE ENERGY LIKE WIND
PUTS LESS STRESS ON THE ENVIRONMENT.**



**RECYCLING AND COMPOSTING REDUCES
LANDFILL AND GREENHOUSE GAS EMISSIONS;
HELPING OUR PLANET.**

**AUSTRALIAN AGRICULTURE IS LEADING THE WAY WITH
SCIENTISTS, RESEARCHERS AND FARMERS WORKING
TOGETHER TO DEVELOP INNOVATIVE TECHNOLOGIES**

**AND FARMING PRACTICES TO ENSURE WE ALL
HAVE ACCESS TO FOOD THAT IS AFFORDABLE,
HEALTHY AND PRODUCED IN AN
ENVIRONMENTALLY RESPONSIBLE WAY.**



**AUSTRALIAN FARMERS ARE USING NO TILL
AGRICULTURE TO FEED A GROWING
POPULATION, WHILST LOOKING AFTER
THE PLANET AND SUPPORTING
THEIR LOCAL COMMUNITIES.**



**NO TILL AGRICULTURE INCREASES
ORGANIC MATTER, NUTRIENTS AND
WATER WITHIN THE SOIL.**



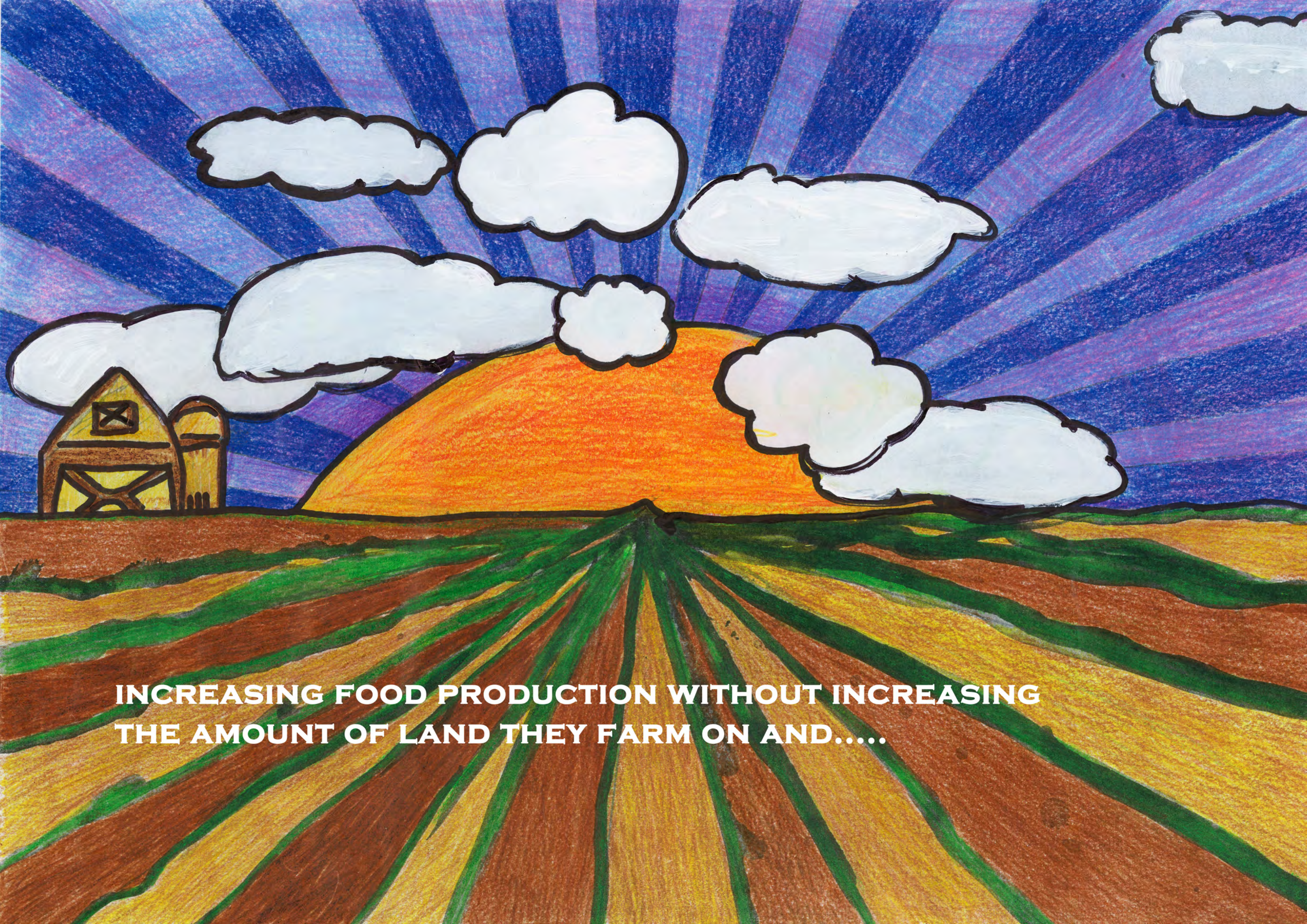
HEALTHY SOILS = HEALTHY CROPS = HEALTHY PEOPLE

= HEALTHY PLANET



**AUSTRALIAN FARMERS
ARE MITIGATING
AND ADAPTING TO
CLIMATE CHANGE BY...**

**REDUCING THEIR WATER
USE BY PLANTING DROUGHT
TOLERANT PLANTS.**



**INCREASING FOOD PRODUCTION WITHOUT INCREASING
THE AMOUNT OF LAND THEY FARM ON AND.....**

**SCIENTISTS ARE BREEDING
NEW VARIETIES OF
PLANTS THAT REQUIRE
LESS WATER AND
FERTILISER.**

**THIS HELPS INCREASE
OUR FOOD SECURITY.**

**THIS IS IMPORTANT AS THE GLOBAL
POPULATION EXPANDS.**

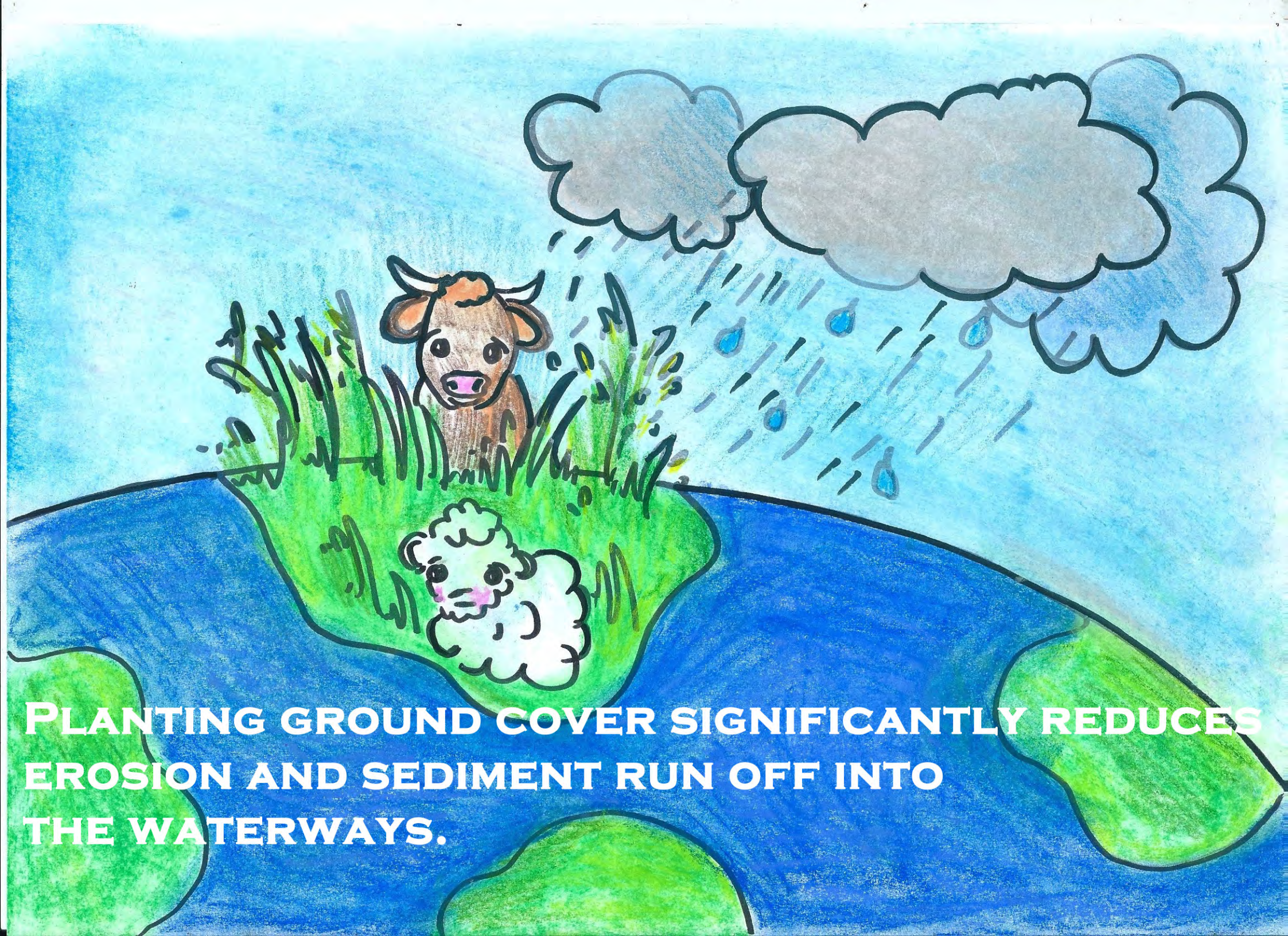


AUSTRALIAN FARMERS ARE LEADING THE
WAY IN REDUCING METHANE GAS EMISSIONS
FROM LIVESTOCK ~~BURP~~ BY 14%.





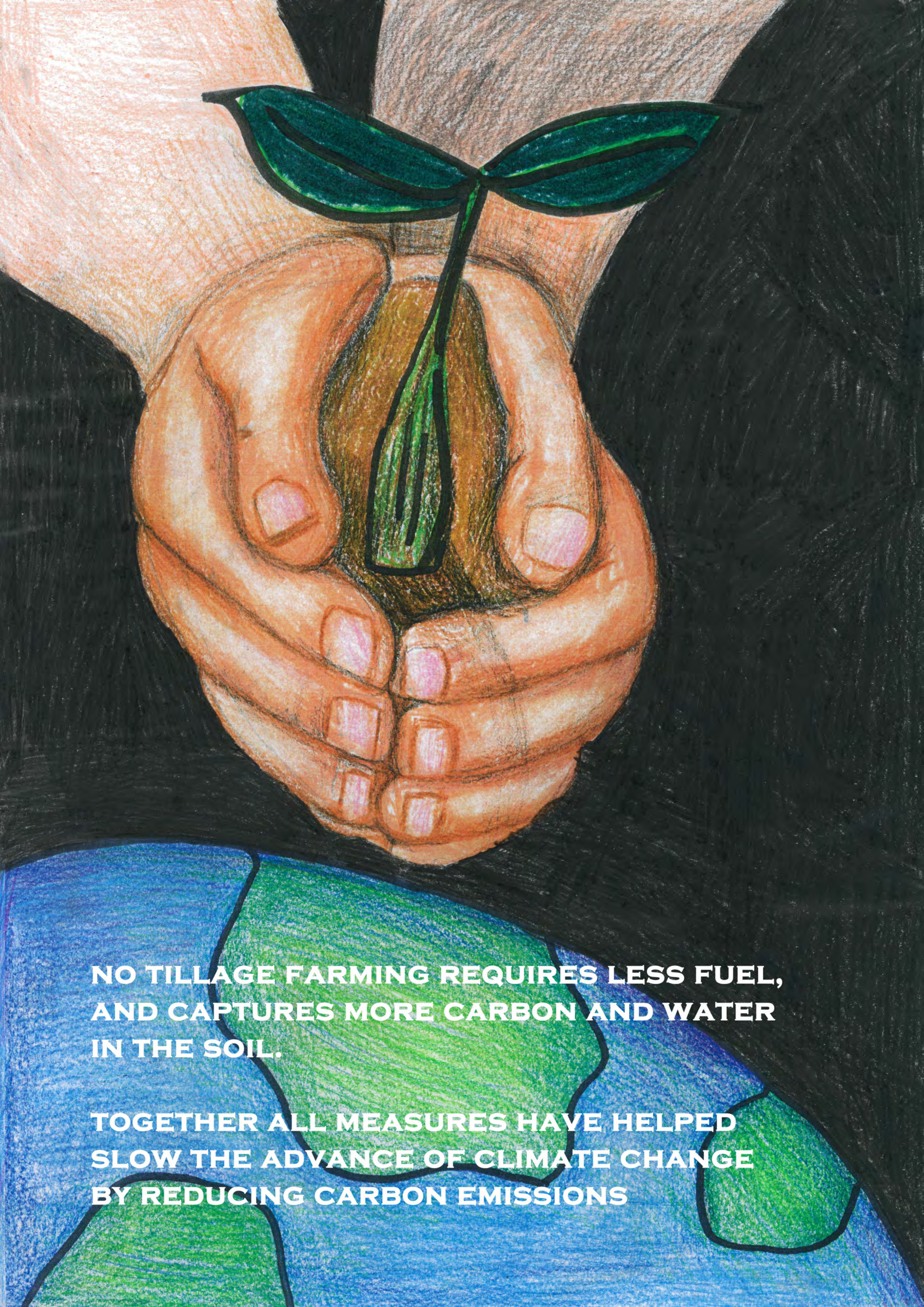
FARMERS USE FENCES TO KEEP LIVESTOCK OUT OF WATERWAYS, REDUCING SEDIMENT LEVELS IN WATER THAT EVENTUALLY REACHES THE SEA. PROTECTING THE GREAT BARRIER REEF.



**PLANTING GROUND COVER SIGNIFICANTLY REDUCES
EROSION AND SEDIMENT RUN OFF INTO
THE WATERWAYS.**



AUSTRALIA HAS SOME OF THE STRICTEST CROP PROTECTION AND BIOSECURITY MEASURES ENSURING THE INTEGRITY AND HIGH STANDARDS OF OUR PRODUCE ARE MAINTAINED.



**NO TILLAGE FARMING REQUIRES LESS FUEL,
AND CAPTURES MORE CARBON AND WATER
IN THE SOIL.**

**TOGETHER ALL MEASURES HAVE HELPED
SLOW THE ADVANCE OF CLIMATE CHANGE
BY REDUCING CARBON EMISSIONS**

**THIS HAS HELPED OUR FARMERS REDUCE THEIR
CARBON EMISSIONS EQUIVALENT TO TAKING 12 MILLION
FERRARIS OFF OUR ROADS FOR AN ENTIRE YEAR.**



**NO TILL FARMING LOOKS AFTER
OUR ENVIRONMENT**

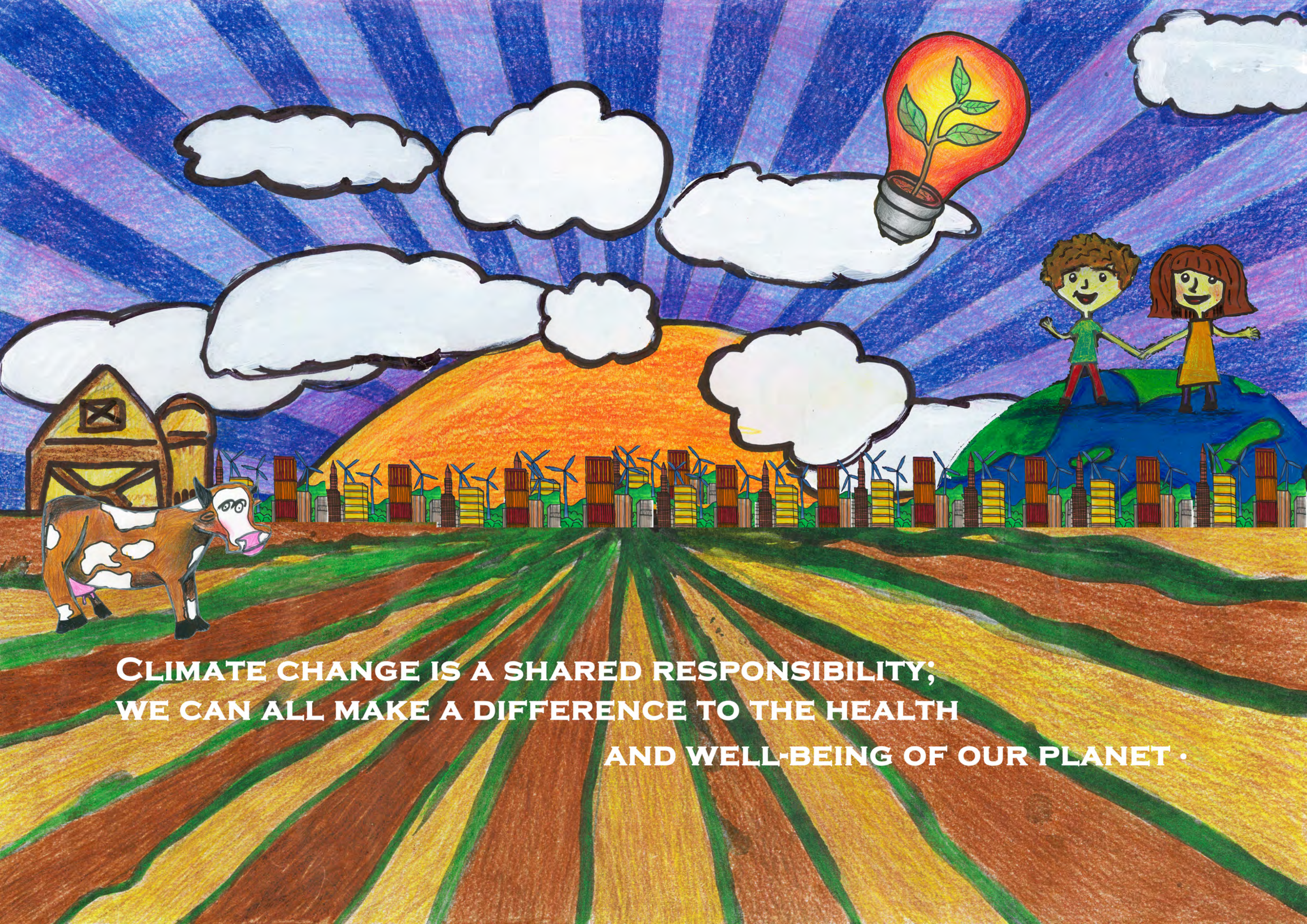
AND MAKES OUR ATMOSPHERE

HAPPY!





OUR FUTURE IS BRIGHT IF WE ALL CARE!



**CLIMATE CHANGE IS A SHARED RESPONSIBILITY;
WE CAN ALL MAKE A DIFFERENCE TO THE HEALTH
AND WELL-BEING OF OUR PLANET .**

A child-like drawing of two children, a boy and a girl, holding hands and standing on a stylized globe. The boy on the left has curly brown hair, a wide smile, and is wearing a green t-shirt and red pants. The girl on the right has straight brown hair with bangs, a wide smile, and is wearing an orange dress. They are holding hands in the center. The globe below them is painted with green landmasses and blue oceans. The background is a dark blue space filled with numerous small, colorful dots in yellow, green, and purple, resembling stars or distant galaxies. The overall style is simple and expressive, using thick lines and a limited color palette.

**HERE ARE YOU AND ME,
CLIMATE CHANGE IS A SHARED RESPONSIBILITY.**