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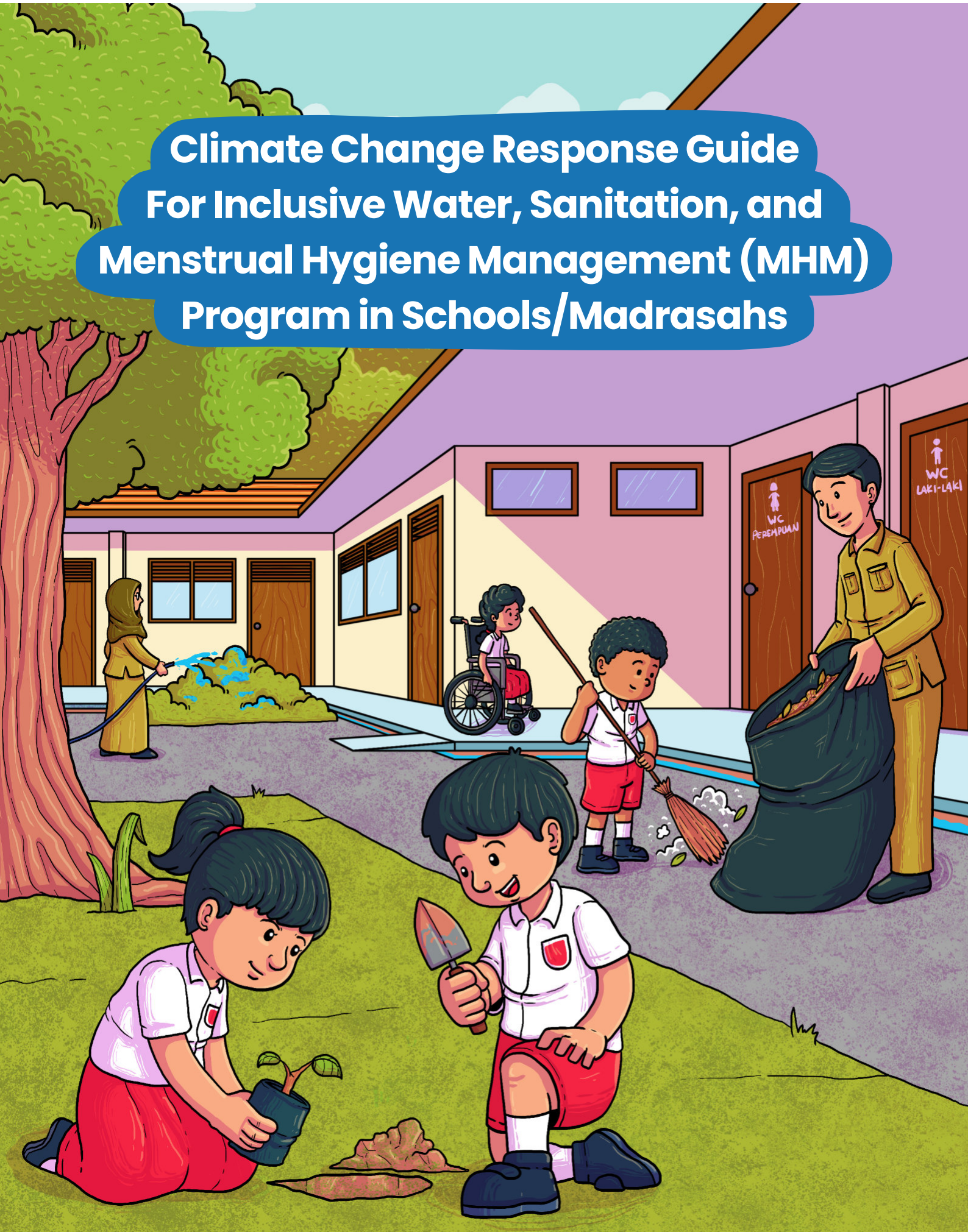
Water For Women

Australian Aid

Climate Change Response Guide For Inclusive Water, Sanitation, and Menstrual Hygiene Management (MHM) Program in Schools/Madrasahs



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Glossary of Terms and Abbreviations

HWWS	Handwashing with Soap
MoEF	Ministry of Environment and Forestry
MHM	Menstrual Hygiene Management
Resilient	The ability of the facility to withstand difficult climatic conditions and still functional with minimum impact
WTP	Wastewater Treatment Plant
STBM [CLTS]	Sanitasi Total Berbasis Masyarakat [Community-Led Total Sanitation]
TWDS	Temporary Waste Disposal Site

CHAPTER 1 – Introduction

Background

Access to safe drinking water and sanitation in schools/madrasahs is essential for safe and smooth teaching and learning. Complete and adequate sanitation facilities, supported by changes in the behaviour of school/madrasah community members, have been proven to reduce morbidity rates and increase the ability of learners to reach their potential. Complete and adequate sanitation facilities also support efforts to achieve safe sanitation at the community level, of which schools/madrasahs are integral.

Amid the low access to sanitation in schools/madrasahs and the disproportional integration of the Menstrual Hygiene Management (MHM) program, schools/madrasahs face another serious threat: climate change. Water shortages in schools/madrasahs are the biggest problem the government still needs to solve, especially in dry climate areas. In addition to water problems, other facilities such as toilets, Handwashing with Soap (HWWS) stations, waste disposal facilities, and Wastewater Treatment Plants (WTP) in schools/madrasahs are also vulnerable to climate change. It is common to hear that schools/madrasahs stop operating and are even closed when climate disasters occur due to extensive damage to water, sanitation, and MHM facilities, which effectively prevent schools from conducting teaching and learning activities.

A lack of preparation by schools/madrasahs to face climate hazards affects the sustainability of the MHM *Sanitasi Total Berbasis Masyarakat* (STBM) [Community-Led Total Sanitation, CLTS] program in schools/madrasahs, which is ineffective and tends to be short-term oriented. Schools/madrasahs must prepare to handle climate hazards that will always come with greater intensity and impact. They also have to integrate climate change into routine MHM STBM activities that have been running well to bring more awareness of the issues among the members of schools/madrasahs and support the sustainability of the program in these institutions. Action plans to deal with climate change must be included in the school/madrasah planning process to obtain budgets from existing funding sources. Good existing habits contributing to minimising climate change effects, such as saving water and waste management, can serve as models for other institutions and become the basis for students' future development.

Objective

This guide aims to:

1. advise schools/madrasahs in developing an action plan that supports the implementation of a climate-resilient MHM STBM program;
2. support the integration of climate change issues in routine MHM STBM activities in schools/madrasahs, especially in behaviour change;

CHAPTER 2 – Action Plan

Aims:

1. Mapping climate change hazards and their impacts on water and sanitation in schools/madrasahs;
2. Mapping the potential of schools/madrasahs to deal with these climate hazards;
3. Discussing the solutions and action plans for improving climate-resilient water and sanitation in schools/madrasahs.

Output:

An action plan for climate-resilient MHM STBM activities in schools/madrasahs that can be used for advocacy to stakeholders at the District/City, Provincial, and National levels.

Facilitator:

1. Representative of the District Education Office or Ministry of Religious Affairs
2. *Puskesmas* [Community Health Centre] (field sanitation workers/health promotion workers)

Participant:

1. Representative of the Subdistrict STBM Team
2. School/madrasah Committee Representative
3. School/Madrasah Principals
4. Teacher Representative
5. School/Madrasah Supervisor (Regional Coordinator/Representative of the Education Office/ Ministry of Religious Affairs in the Subdistrict)

Time:

This activity lasts approximately three hours, with material presentation and discussion for about two hours, and a transect walk/observation takes around one hour.

Agenda:

1. Introduction to climate change
2. Transect walk/observation of MHM STBM facilities in schools/madrasahs
3. Introduction to climate-resilient MHM STBM in schools/madrasahs
4. Resource mapping and action plan

Facilitation steps:

1. **Opening and introduction**
   The facilitator introduces themselves and asks each participant to introduce themselves and their institution. Provide an introduction to the activity, including its purposes and the expected outcomes. Also, share the agenda of the activity and the estimated time needed until the completion of the activity.
2. **Introduction to climate change and its impact on WASH**
   - Present the materials in **Box 1** related to climate change, its causes, impacts, and trends.

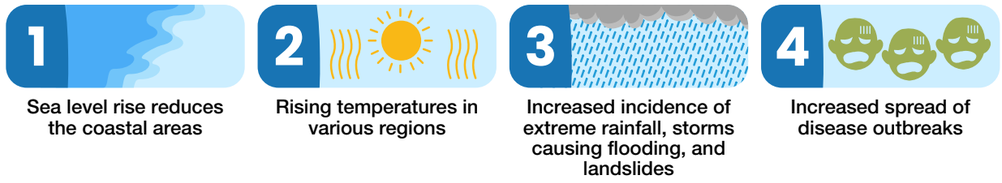
Box 1

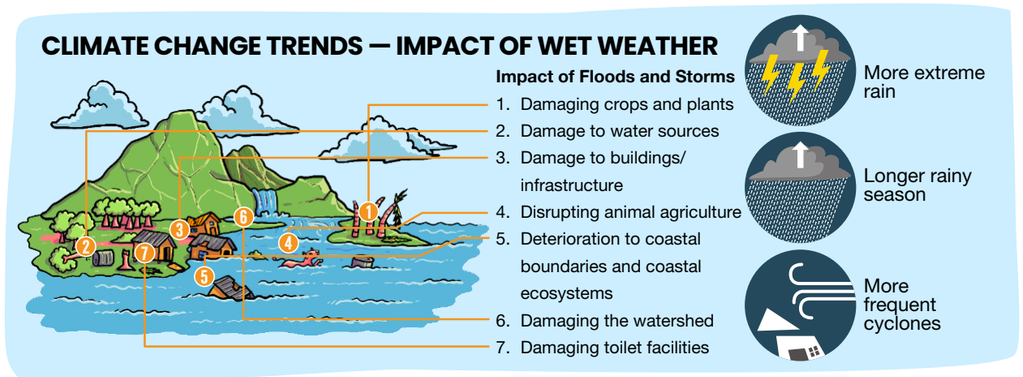
Climate Change And Climate Hazards

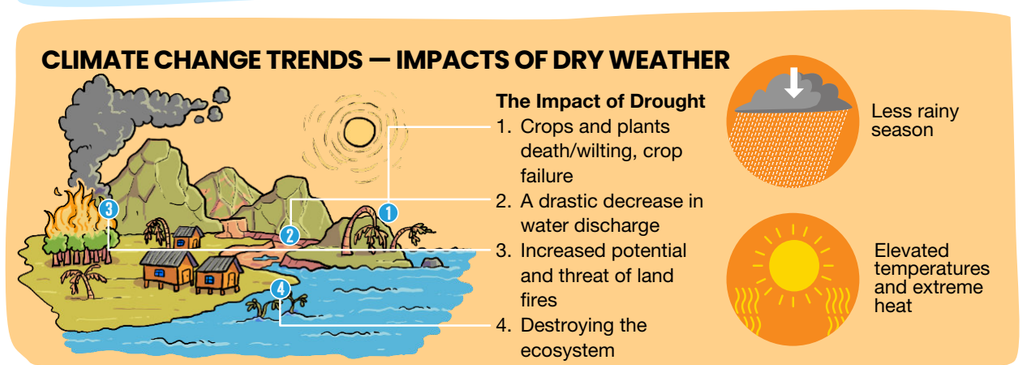
Climate change is a change in temperature, air, wind, rainfall, humidity, or other elements that tend to rise or fall over a long period caused by global warming and increasing concentrations of greenhouse gases.

Causes of Climate Change

- Deforestation/damage to forest functions
- Slash-and-burn agriculture
- Industry/industrial waste
- Rubbish (high plastic usage and littering)
- Fuel use in transport
- Population growth
- Excessive use of electrical energy
- Excessive water usage







- Participants may have only recently been familiar with the term climate change, so it is essential to pay attention to any discussions or questions from participants who request a more detailed explanation.
- Discuss the impact of climate change on water and sanitation facilities at schools/madrasahs using the following key questions. Record and document the discussion process using the minutes template available in Appendix 1.

  - What does the school/madrasah community feel when the temperature of the weather gets higher?
  - What does the school/madrasah community feel during a long period of drought?
  - What does the school/madrasah community feel during a prolonged rain?
  - What are the impacts on water and sanitation facilities in schools/madrasahs? Toilets, HWWS facilities, waste bins, sewer, menstrual hygiene management?
  - What losses are incurred (may be incurred) as a result of the climate hazard?
  - Are there any different impacts experienced by school/madrasah members with special needs, women, and girls? If so, what are the impacts on them?

- Map out the locations of water and sanitation facilities affected by climate change in the school/madrasah (which will be visited during the transect walk/observation).

3. Transect walk/observation of existing water and sanitation facilities in schools

- The facilitator divides participants into 2-3 groups, then invites them to observe water and sanitation facilities in schools/madrasahs, i.e. water facilities, toilets, HWWS (Handwashing with Soap) facilities, Temporary Waste Disposal Sites (TWDS), wastewater sewerage, and MHM facilities. Each group visits a different facility;
- Participants visit and make observations of water and sanitation facilities and complete the observation form prepared in Appendix 2.
- After completing the observation, participants reconvene to discuss the findings from the visit to the sanitation facility with the following key questions. Record and document the discussion process in the minutes template in Appendix 1.

  - Are the water and sanitation facilities in the school/madrasah complete and adequate?
  - Do the existing water and sanitation facilities in schools/madrasahs fulfil the needs of all people/users (inclusive)?
  - In the event of a climate disaster, are the water and sanitation facilities in schools/madrasahs able to withstand climate hazards (at least still functional or easily repairable)?
  - What water and sanitation facilities need to be upgraded to become more climate-resistant?

4. Introduction to climate-resilient MHM STBM in schools

- Deliver climate-resilient MHM STBM materials at schools/madrasahs in **Box 2**. Provide opportunities for participants to ask questions, share experiences, or add to the provided material.

Box 2

Climate-resilient Svchools

- A school policy to minimise the impact of climate change and familiarise children with climate disaster prevention practices from an early age.
- This policy can be directed at preparing sustainable and climate-resistant sanitation facilities and behaviours for water and sanitation.
- Learning activities in schools can still be carried out with minimum or without disruption and ensure that all students and school personnel are safe and comfortable doing their activities.
- Schools have to map the location of water and sanitation facilities most affected by climate hazards and prepare mitigation plans.
- Schools need to seek support from external parties to collaborate on implementing climate change adaptation plans in schools.

Behavioural changes that need to be encouraged:

- Efficient and safe use of water
- Avoid littering by using rubbish bins properly, reducing plastic waste, providing drinking water, and carrying a reusable water bottle
- Incorporating climate change into the school curriculum
- Keeping the school clean, including toilets, rubbish bins, and sewers.

Changes in the supporting environment:

- Maintenance of resistant and safe water and sanitation infrastructure
- Optimisation of natural and energy-efficient lighting and ventilation
- Tree planting/reforestation
- Climate risk assessment and appropriate mitigation plans
- Monitoring and evaluation of water and sanitation programs in schools

Government support:

- Integrating climate resilience education into the lesson
- Provision of resistant and safe water and sanitation infrastructure, including constructing new facilities, repairing existing ones, and relocation
- Strengthening the emergency response policy in schools
- Facilitating climate change activities in children and youth, such as World Menstrual Hygiene Day, child-led climate action

- Afterwards, discuss the following key questions in small groups. Take notes and record the discussion process in the minutes format in Appendix 1.

  - How are the schools/madrasahs adapting to the current higher-temperature weather?
  - How are schools/madrasahs adapting to the current longer dry season?
  - How do schools/madrasahs adapt to heavy rain or big storms that have become more common now?
  - What policies or plans do schools/madrasahs currently have regarding these matters?

5. Resource mapping and action plan development

  - Who should be involved in supporting the implementation of climate change adaptation and mitigation?
  - What assistance do schools/madrasahs need to develop or update the plan?
  - Do schools/madrasahs need to plan for an increased risk of flooding and the rising of the sea level (e.g., improved drainage, upgrading classrooms, and relocating the school if it is too close to the sea)?
  - What plans can schools/madrasahs implement with the help of the local community?
  - What assistance is needed from the government/external parties?

- Use flip charts to recap the action plans presented by each group using the format in **Box 3**.

Box 3

Problem/issue	Solution	Key Stakeholder	Estimated cost	Estimated time
Water crisis during the dry season	Increase the capacity of water tanks	District Education Office	IDR 5,000,000	3 months
Toilet building is prone to landslides	Relocating the toilet to a safer place	District Education Office	IDR 12,000,000	3 months
Hot temperatures make the school/ madrasah community vulnerable to dehydration	Providing drinking water for all school/madrasah students and staff	Head of School/ madrasah, Head of Administration	IDR 500,000 per month	1 month
Rubbish is scattered and not sorted properly, causing puddles during the rainy season	Promote sustainable waste management in schools: reduce, reuse, recycle	Head of School/ madrasah	IDR 2,500,000	1 month
Some parts of the school are waterlogged during the rainy season	Maintenance of sewerage and infiltration wells	District Education Office, School/ madrasah Board	IDR 1,500,000	1 month
Septic tanks that are never maintained by desludging experience a more significant impact when climate hazards occur	1. School/ madrasah septic tank desludging 2. Renovate school/ madrasah septic tanks	Desludging service provider/ MoEF	IDR 1,000,000	Every 5 years

*The activities in this table are for reference only. Please refer to the existing problems in each school/ madrasah when developing an action plan for them

- Review the school/madrasah's Water, STBM, and MHM Action Plan together and make changes the school/madrasah can implement now. Their actions will receive support from stakeholders or external parties

Notes For Facilitators

- Please coordinate with the schools/madrasahs and the Education Office/Ministry of Religious Affairs representative in the District before conducting this activity at least one week in advance, considering the busy academic timetable of schools/madrasahs;
- The developed action plan must be included in the planning and budgeting documents at the school/madrasah and district/city levels and should be encouraged to be submitted to higher policymakers so that it can be integrated into activities in schools/madrasahs;
- If there are participants with physical disabilities, choose a location that is not steep or as accessible as possible for persons with disabilities, including arrangements for transect walk/observation locations. Interact directly with the person, not through their caregiver/guardian. When speaking, try to keep your eyes level. Ask beforehand if you want to assist;
- If there are participants with hearing impairments, speak slowly, allowing the sign language interpreter (if available) to interpret the facilitator's presentation. Use appropriate gestures, expressions, and body language when delivering the material. Presentations can be supplemented with handouts for the participants and stationery;
- If there are participants with visual impairments, use touch and greet them by name during the discussion. Speak slowly and give the caregiver/guardian (if any) the opportunity to re-explain the presentation material. Choose a location for the transect walk/observation that is easily accessible for participants.

CHAPTER 3 – Integrating Climate Change in Education and MHM STBM Promotion Activities at Schools/Madrasahs

Aims:

1. Improve the knowledge of school/madrasah members about climate change and its impact on water and sanitation programs in schools/madrasahs;
2. Teaching children educational games to address the impacts of climate change in schools/madrasahs.

Output:

1. School personnel and members have an understanding of climate change and its impact on water and sanitation programs in schools/madrasahs;
2. School/madrasah members can employ good practices in mitigating the impacts of climate change, which are integrated into their MHM STBM routines.

Facilitator:

1. School health centre assistant/managing teacher in schools/madrasahs
2. Field sanitarians or health promotion workers from Puskesmas
3. Peer educator

Participant:

The participants expected to be reached by this promotion and educational activity include:

1. School/madrasah principals and teachers
2. Staff at schools/madrasahs
3. School/madrasah students
4. Local residents (if possible)

Time:

This activity lasts approximately three hours, with material presentation and discussion for about two hours, and a transect walk/observation takes around one hour.

Agenda:

Each of the games/activities in this chapter can be done in approximately 1-2 hours and conjunction with other routine MHM STBM promotion and education activities, such as hand washing demonstrations, clean Friday, playing snakes and ladders, etc.

Activity:

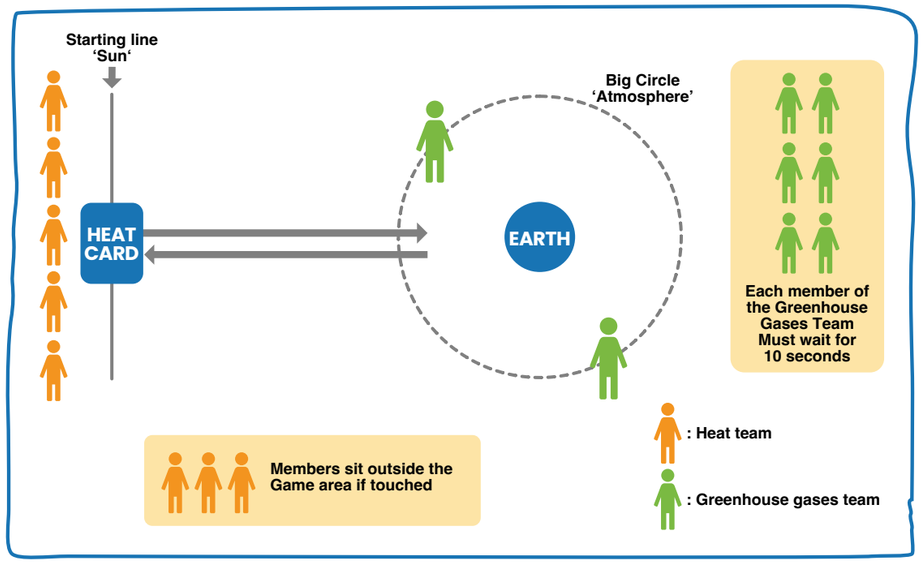
Here are some options for activities that can be conducted in schools/madrasahs to introduce, raise awareness of, and promote behaviour change to mitigate the impacts of climate change on water and sanitation programs in schools/madrasahs. These activities can be done together with children or adults.

1. Colouring pictures (for 6-8-year-olds)

- Each child is given a picture and coloured pencils/crayons. They are then asked to colour the picture that has been distributed according to their favourite colour (Appendix 3);
- When finished, the children are asked to read aloud the statement in each picture in turn. Praise the child for their efforts, and ask them what picture they coloured and why they chose that colour.

2. Greenhouse gases game (for 6-15-year-olds)

- Make two circles: the first circle is the size of a basketball, and the second one circles the first circle from the outside (a larger size with a diameter of ±1-1.5m). Circles can be made using rope, chalk, etc., on the floor or a large enough area of ground;
- Name the two circles: the small circle is called the Earth, and the large circle is called the atmosphere. Make a box ±1m away from the big circle and name it the Sun. Then, draw two straight lines from the Sun to the Earth that signify the direction of sunlight entering the Earth and otherwise reflected back into the atmosphere;



- Divide the children into two teams of 3-5 people each. Give each team a name: the Heat Team (standing behind the Sun box) and the Greenhouse Gases Team (spreading around the Atmosphere);
- The rules of the game are that the Heat Team will enter the Earth (allow 1-2 members of the Heat Team to enter), then 1-2 members of the Greenhouse Gases Team will stand guard in the Atmosphere circle with the task of preventing the entry and exit of the Heat Team to the Earth. Any members of the Heat Team touched by the Greenhouse Gases Team will become the greenhouse team members and are tasked with maintaining the Atmosphere so that the Heat Team cannot pass through. The game can last 3-5 minutes; the Heat Team will be the winner if all members can get in and out of the Atmosphere circle, and the Greenhouse Gases Team will be the winner if they capture (i.e., touched) half of the Heat Team members. The game can be repeated by switching roles.
- Upon completion, the facilitator conveys the message behind the game and explains greenhouse gases and their impact on climate change (**Box 4**). Give children the opportunity to ask questions and express their opinions.

Box 4

Greenhouse gases are heat that enters the Earth, is trapped and cannot be reflected back entirely due to the disruption of the atmosphere, causing an increase in temperature on Earth. Examples of chemical elements that are damaging to the atmosphere: Carbon Dioxide, Nitrogen Oxides, and Methane

Source of Greenhouse Gases

Motor vehicles fumes | Factory fumes | Mining fumes | Forest fire

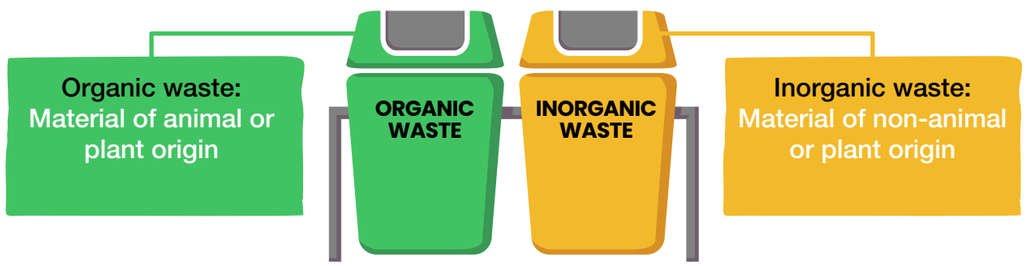
3. Waste sorting (for children aged 6-15 years)

- Prepare two large boxes (you can use old cardboard boxes or bins found in the school/ madrasah), and label both boxes 'Organic' and 'Inorganic';
- Explain to the children first about organic and inorganic waste (**Box 5**);

Box 5

Waste/rubbish is items or objects that are discarded because they cannot be used anymore
Example:

- Plastic
- Paper
- Bottle
- Used clothes
- Leftovers
- Vegetables scraps or rotten fruit



- Ask children to spread out around the school/madrasah environment to collect rubbish and put it in the box according to the type of waste. Each child should bring at least one kind of waste;
- After all the children have put the rubbish they find into the box, place the rubbish back into each box to check whether the type of waste is correct. Correct the wrong kind of waste and explain it to the child. Reward children who sort correctly. Encourage them to recollect the rubbish and dispose of it in the bins provided at school.

4. Season calendar game (for 9–15-year-olds)

- Children are divided into two groups, the PAST group and the PRESENT group;
- In each group, ask participants to form a circle starting with participants born from January to December in a clockwise direction;
- Then, ask each child whether the weather in their birth month was hot, cold, wet, or dry. The PAST group refers to the weather 3-5 years back, and the CURRENT group refers to the current weather (at least for the past year);
- The facilitator guides and crosses (x) the results of the discussion on the season calendar;

Season Calendar

Extreme weather	Bulan											
	Jan	Feb	Mar	Apr	Mei	Jun	Jul	Agu	Sep	Okt	Nov	Des
Hot			X	X	X	X	X	X	X	X		
Cold												X
Wet	X	X									X	X
Dry									X	X		

- When you have finished marking, gather the children and discuss the two calendars filled with crosses. Are there any differences? What months are different? What weather has changed? How do you use the toilet during the dry season? Is there enough water available?
- The facilitator emphasises that this change in the calendar of the PAST group and the PRESENT group is called climate change. The facilitator can explain climate change using the material in **Box 6**.

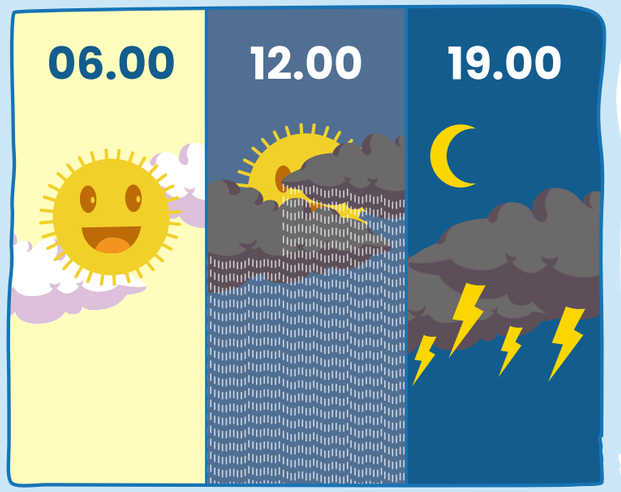
Box 6

Weather is the rapidly changing condition of the air.

- Last for a short period of time
- Limited area
- Change quickly
- Difficult to predict

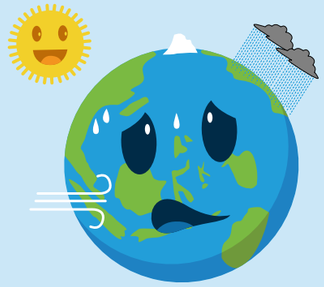
Weather can be sunny, cloudy, rainy, hot, cold, or windy, which happens outside, in the 'atmosphere', at a specific place and time.

Example:
It could rain in the morning, sometimes cloudy in the afternoon, and hot in the evening or night.



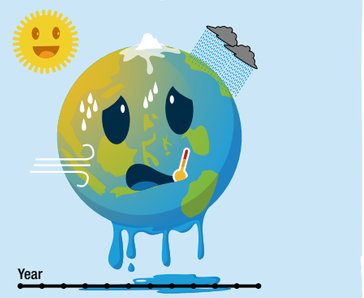
And what about the climate?

Climate change is a change in temperature, air, wind, precipitation, humidity, or other climatic elements that tends to increase or decrease over a long period of time or term (usually measured over a period of 5-30 years).



Climate can be characterised if there is a change in:

- duration (longer)
- area size (more extensive)
- changes with the seasons
- measurable over a long period of time



5. Word matching game (for 9-15-year-olds)

- Make circles according to the number of children (if there are more than ten children, two circles should be enough);
- Prepare the table that will be used for word matching and the word cards that will be used for this game (**Box 7**). Shuffle the word cards and ask the children to match the possible impacts on the cards with the extreme weather on the table. Each child can take one card in turn and paste it on the table;

Box 7

Weather			Threat	
Rain	Example: 	Landslides	Storm and Waves	Drought
			Fire	High temperature
			Landslides	Water shortage
Wind	Example: 	Fire	Changes in rainfall pattern	Diseases
			Melting of ice caps	Floods
Heat/ Tempe-rature rise	Example: 	Drought	Heat wave	

- Evaluate the child's answers and provide corrections for incorrect answers. Reward children who answer correctly. Ask the children to recall the correct answers.

6. Word matching game (for 9-15-year-olds)

- Explain to children the adaptation and mitigation to climate change; if possible, provide some examples so that children can distinguish which are adaptation activities and which are mitigation activities (**Box 8**);

Box 8

How do we take action to prevent climate change?
Adaptation and Mitigation

Adaptation refers to the steps/measures taken to anticipate the impacts of climate change. This includes making policies, conducting climate studies, building capacity, and cooperating with other parties.

Example of adaptation action:

- Planting trees to prevent landslides
- Constructing irrigation channels
- Environmentally friendly farming (using drip irrigation or using crop diversification patterns by replacing main crops with substitutes that do not require much water)
- Making infiltration wells.
- Protecting the springs and planting bamboo/banyan trees around the springs

Mitigation is activities to reduce the impacts of climate change by Developing and Implementing Action Plans to address environmental issues.

Example of mitigation action:

- Using public transport instead of private vehicles
- Using tumblers and reusable food containers
- Use cloth bags instead of plastic bags.
- Using solar energy as a source of heat and lighting
- Properly disposing of waste in rubbish bins (organic and inorganic)
- Separating waste for recycling, turning organic waste into fertiliser or inorganic waste (e.g., plastic waste) into other valuable materials.
- Reforestation

- Participants are divided into three groups; the facilitator then gives three challenges in the form of problems related to climate hazards around the school. Provide a detailed explanation for each challenge and ask each group to design an action plan to address the challenge;

Action-Making Challenge

Discuss, set up, and play

1	2	3
In the Magenta Town area, there has been flooding. According to observations, this was caused by rubbish filling the irrigation ditch in front of SDN 1 Magenta, a local elementary school. Voice out how you can raise children's awareness about littering.	At SDN 1 Magenta, the temperature is scorching, and there is a water shortage—no clean water is available in the toilets and hand washing stations. This causes itching and brings diseases. How can you help solve the problem of heat and lack of water?	Magenta Town is famous for its beautiful beaches, but some say one of the beaches very close to the school is littered with rubbish, affecting children attending the school. How do you make the community and visitors aware of the issue and stop littering the beach?

- Allow ±15-20 minutes for each group to create an action plan and present it for everyone to respond. Tell the children that their actions can be shared on social media by making them as attractive as possible so that their friends know about their activities, and more children will voice their climate change actions. Reward the children for their work making action plans and correct/provide input as needed;
- Invite participants to discuss: What if the events in the challenge happened in the school environment? Can the school implement the action plan? If not, what is needed for the plan to work?
- Ask 3-5 children to express their opinions, give rewards and encourage them to carry out the action plan;
- This activity can also be done with adults (e.g., principals, teachers, staff, or school board) so that the developed action plan can be transformed into a joint action plan to address the impacts of climate hazards on school water and sanitation.

References

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- Facilitator Guidebook: Y-Adapt. 2018. This module was made in collaboration with the Red Cross and Red Crescent Climate Centre, the Philippine Red Cross, Plan International, and the Engagement Lab, Emerson College.
- Wins Climate Tools from Solomon Island. 2023. This tool was made in collaboration with Plan International, Live & Learn Environmental Education, Water for Women Fund, and Australian Aid.

Appendix 1

Minutes Template
Action Plan Development for Climate Resilient
MHM STBM in Schools/Madrasahs

This minutes template is a supplement to the Guideline for Developing Action Plan for Climate Resilient MHM STBM in Schools. This minutes template was created to guide the minute taker in recording the information obtained during the preparation of the school action plan.

School name : ……..
District : ……..
Sub District : ……..
Village : ……..

Activity 1: Introduction to climate change and its impact on MHM STBM in schools

What climate hazards/disasters has the school experienced/threatened by over the last 5-10 years? *Write in detail about the climate disaster (e.g., flood, landslide, drought, sea level rise, etc.)*	
What is the impact on water and sanitation facilities in schools (e.g., toilets, HWWS facilities, rubbish bins, wastewater disposal and menstrual hygiene management support facilities) *Write in detail what happens to water and sanitation facilities when climate disasters occur and what the school community does to overcome these impacts!*	
What losses are incurred (may be incurred) due to the climate hazard?	

Are any vulnerable groups (e.g., students/staff with special needs, women, girls, elderly, etc.) affected? If so, what are the impacts on them? *Write in detail the impacts felt by different community groups (already detailed below), whether there are sanitation facilities that are inaccessible to these groups, whether certain areas are unsafe to build toilets/other sanitation facilities, whether there is a risk of disease due to climate change, etc.*	
Women	
Girls	
Children with disabilities	
Adults with disabilities	
Elderly	

Activity 2: Transect walk/observation of water, sanitation, and MHM facilities in schools

How does climate change affect water and sanitation facilities? *Detail the impacts of climate change on access to water and sanitation facilities (e.g., during heavy rains, after storms, during the prolonged dry season, droughts; what happens to access to facilities), including which groups are most affected (e.g., women, girls, elderly, people with disabilities).*	
Toilet	
HWWS facilities	
Rubbish bins	
Wastewater sewerage	
MHM supporting facilities	

What is the condition and mitigation of climate change impacts on water, sanitation, and MHM facilities in schools? *Write down in detail the experience discussed by the participants!*	
Are the water and sanitation facilities in schools complete and adequate?	
Do the existing water and sanitation facilities in schools fulfil the needs of all people/users (inclusive)?	
and are the water and sanitation facilities in schools able to withstand climate hazards (at least still functional or easily repairable)?	
What water and sanitation facilities need to be upgraded to become more climate resistant?	

Activity 3: Development of action plans for climate-resilient MHM STBM in schools

Problems/issues (list issues related to MHM STBM and climate change in schools)	Solution (list solutions/plans to overcome the problem)	Coordinator (list the parties responsible for overseeing the proposed solution)	Budget (optional)	Time (how long will it take to implement the solution?)
Example: the toilet is located on a slope, which is dangerous when it rains	Move the toilet to a safer place	District Education Office		
	Building a guardrail and reinforcing the septic tank foundation	District Education Office		

Appendix 2

Observation Sheet for Water and Sanitation Facilities at School

School name : .....
Observation date : .....
Observer name : .....

Questions	Current situation	How does climate change affect the current situation? (e.g., After prolonged rains, storms, droughts, prolonged dry season, etc.)	Note
WATER			
What is the condition of the primary water source used by the school? How is the quality? *Check the source of the water used, looking at the clarity, odour, and turbidity of the water.*		What is the water quality during prolonged drought/dry season?	
What is the current capacity of the water tanks? Is it sufficient for the school's needs? If the school does not have water storage facilities. *Check if water is available during school operating hours.*		Are these tanks enough to fulfil the needs during prolonged drought/dry season?	
SANITATION			
Is the path to the toilet safe for users to walk on? *Check the inclination, whether there are obstructions, whether the slope is slippery, distance from the classroom to the facility, distance to other facilities*		During heavy rain, is the path to the toilet slippery/wet/muddy (including the path to other toilets if there is a damaged toilet)?	
Is the toilet building fit for use? *Check the condition of the building, including doors, roof, walls, septic tank construction, the location where the toilet is built, and the risk of damage from climate disasters*		When strong winds occur, are the doors or roof of the building strong enough to withstand the wind?	

Questions	Current situation	How does climate change affect the current situation? (e.g., After prolonged rains, storms, droughts, prolonged dry season, etc.)	Note
SANITATION			
How comfortable are the toilets at school? *Check the toilet size, handrail/ram, toilet floor, toilet construction, faucet height, cleanliness, availability of water and soap, and user comfort (interview 1-2 children/ teachers to answer this).*		During drought/dry season/heavy rains, does the toilet become dirtier/emit unpleasant odours?	
What is the availability of HWWS facilities at school? *Check the number of functioning HWWS facilities, availability of water and soap, access to the facilities, faucet height, water collection mechanism*		When it rains heavily/ dry/hot, are these HWWS facilities still functional?	
TRASH MANAGEMENT			
What is the availability of rubbish bins at school? *Check the availability of rubbish bins in classrooms, common areas*			
What is the condition of the Temporary Waste Disposal Site (TWDS) at school? *Check building construction, doors/no doors, risk of flooding, location of TWDS, possibility of waste overflowing/scattering*		When it rains heavily, does this TWDS get submerged/wet/muddy, causing waste to overflow/scatter?	
Does the school have a waste sorting policy? *Check rubbish sorting bins and their contents, plastic waste reduction policy*			

Questions	Current situation	How does climate change affect the current situation? (e.g., After prolonged rains, storms, droughts, prolonged dry season, etc.)	Note
TRASH MANAGEMENT			
How is waste managed at school? *Observe the treatment used; if burnt, check the burn pit, the risk of land fire, the smoke nuisance caused by the treatment, and the risk of waste overflowing/ scattering.*		When it rains heavily, is there a build-up of rubbish at school?	
WASTE TREATMENT			
How is wastewater managed at school? *Observe waste management, including if it is drained into sewers, disposed of in the yard, infiltration pits, etc. Are there puddles of water around the waste disposal site?*			
What is the condition of waste management facilities at school? *Observe sewers, infiltration pits, and wastewater disposal pits. Whether they are well connected, the construction of the building, whether there are blockages, whether the location is risky, whether the capacity is sufficient*		When it rains heavily, do the school's gutters get clogged, causing many puddles?	

Appendix 3

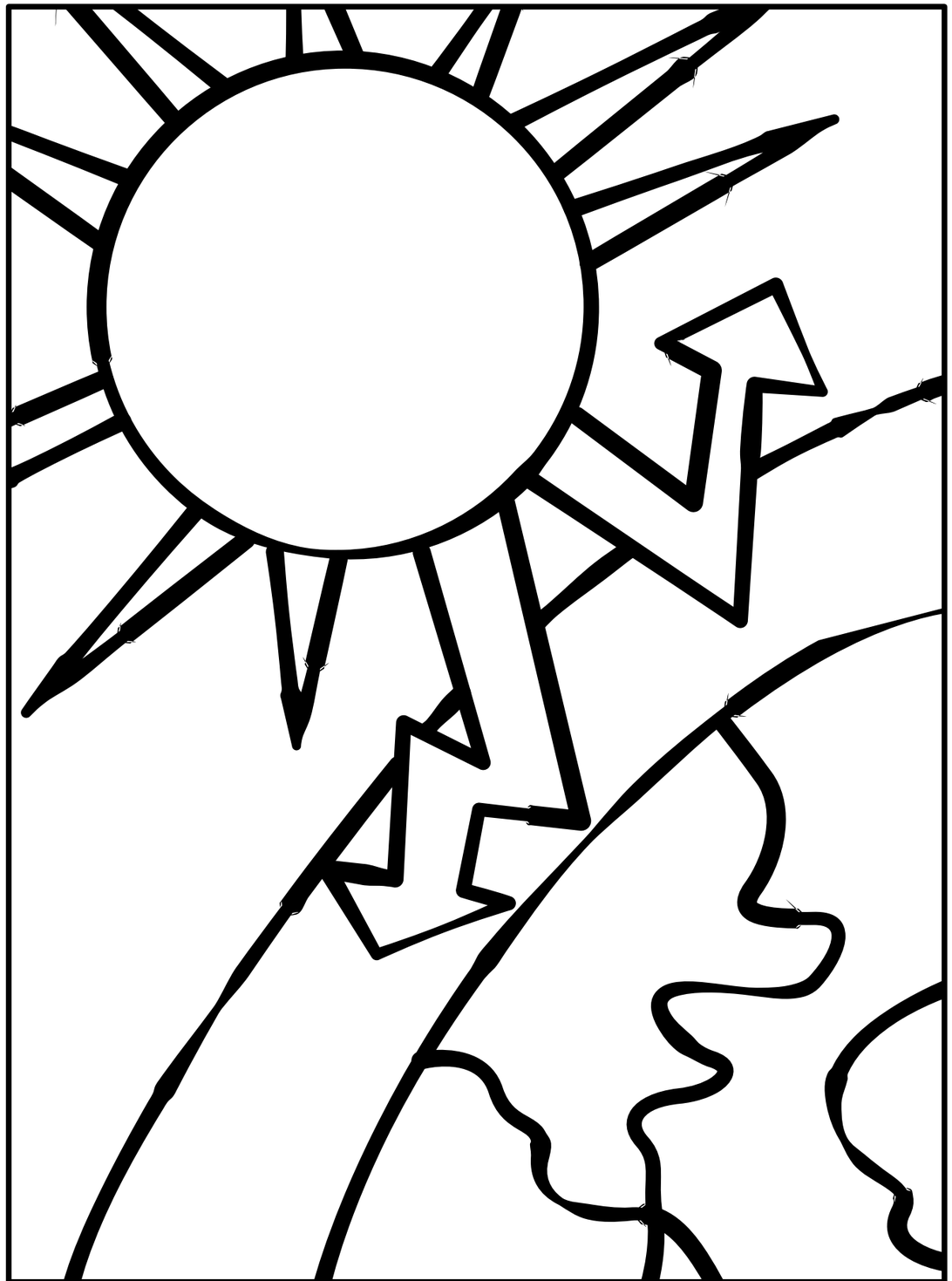

Figure 1
The Earth gets its energy from the Sun.
Presumably, half of this energy reaches the Earth, but some travel back out of space.

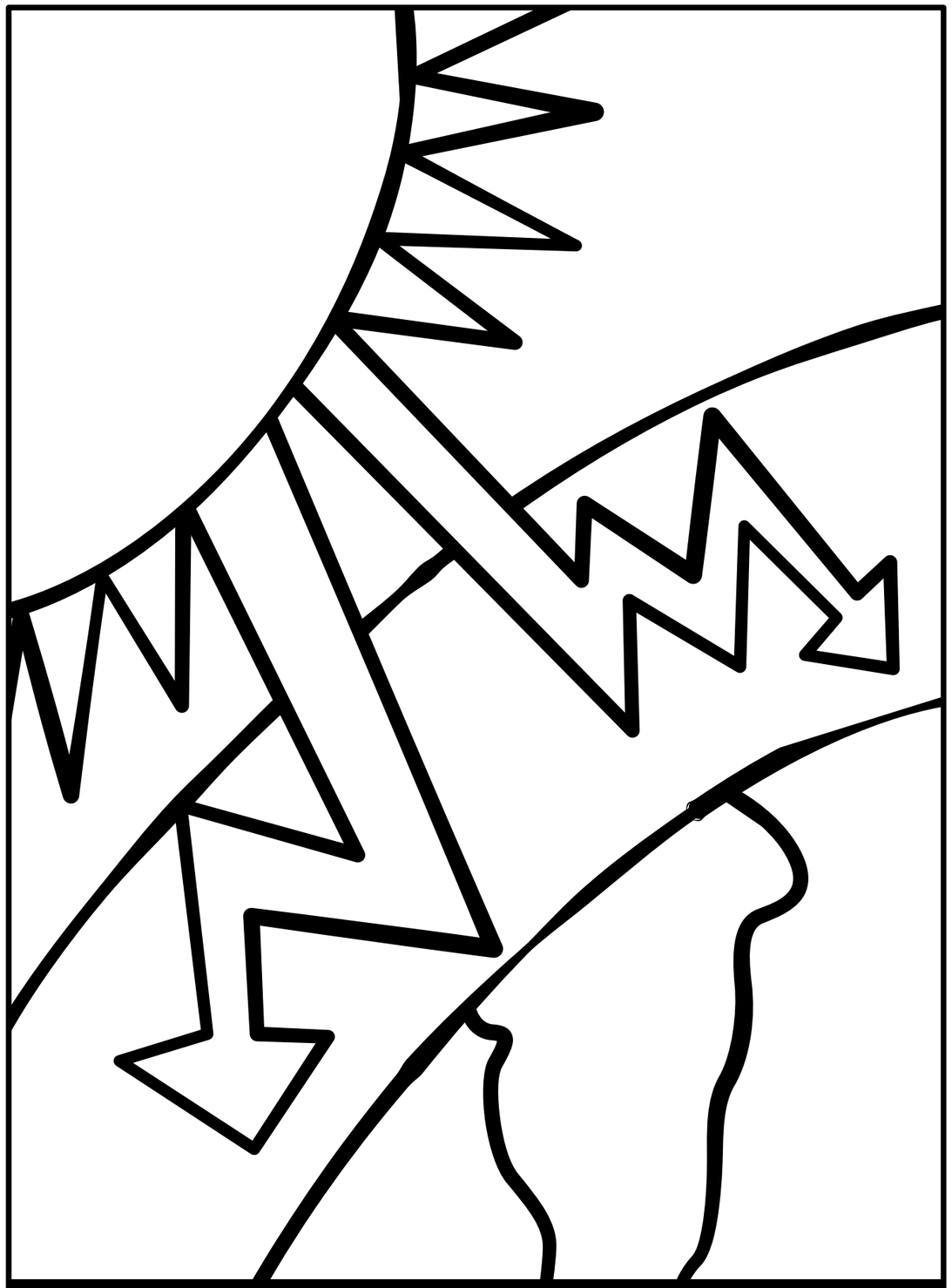

Figure 2
The greenhouse gases around us trap some of the energy. Greenhouse gases help maintain the Earth's temperature so humans, animals, and plants can live.

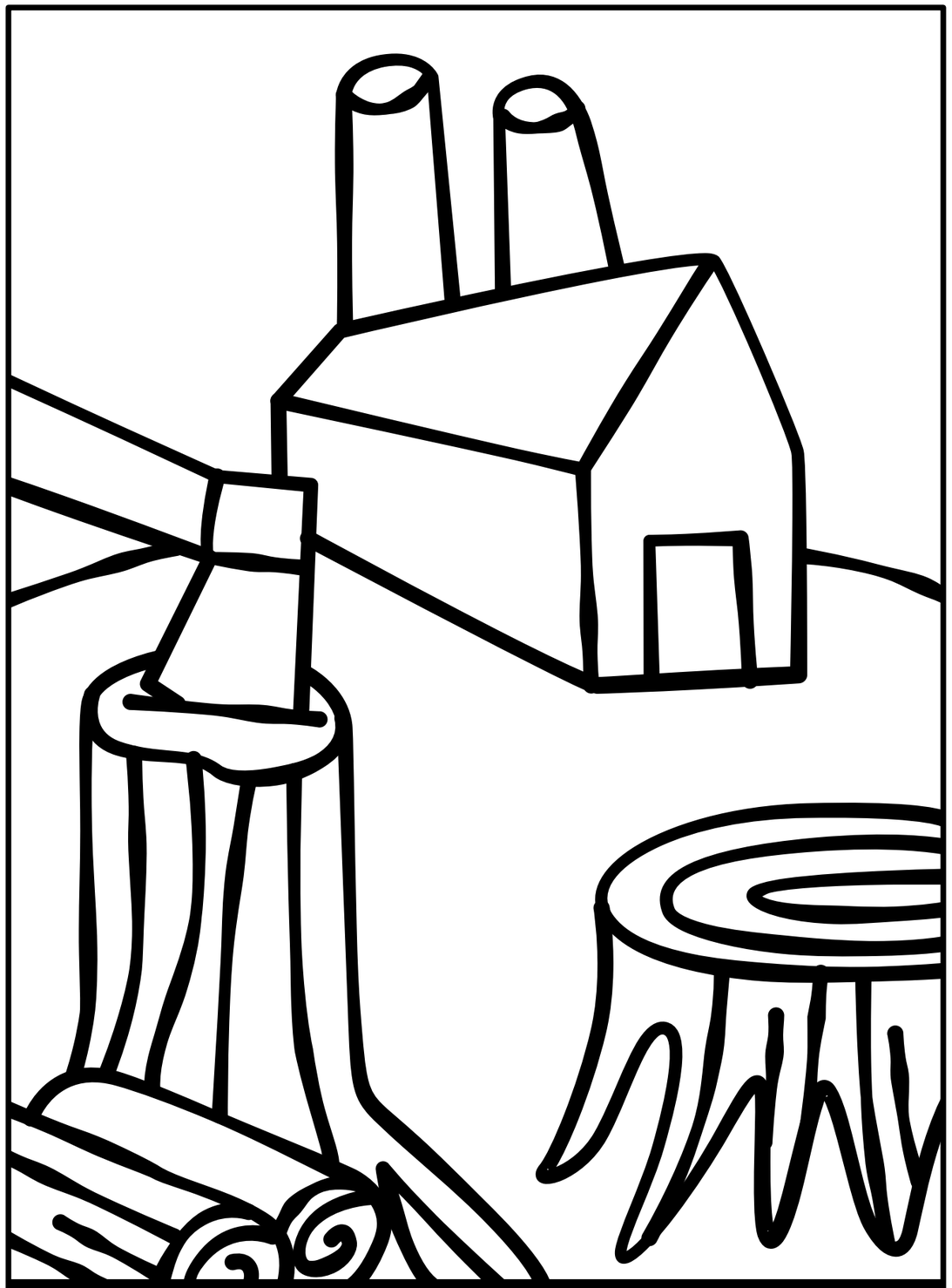

Figure 3
Over the last 200 years, human activities have increased greenhouse gases in the air.

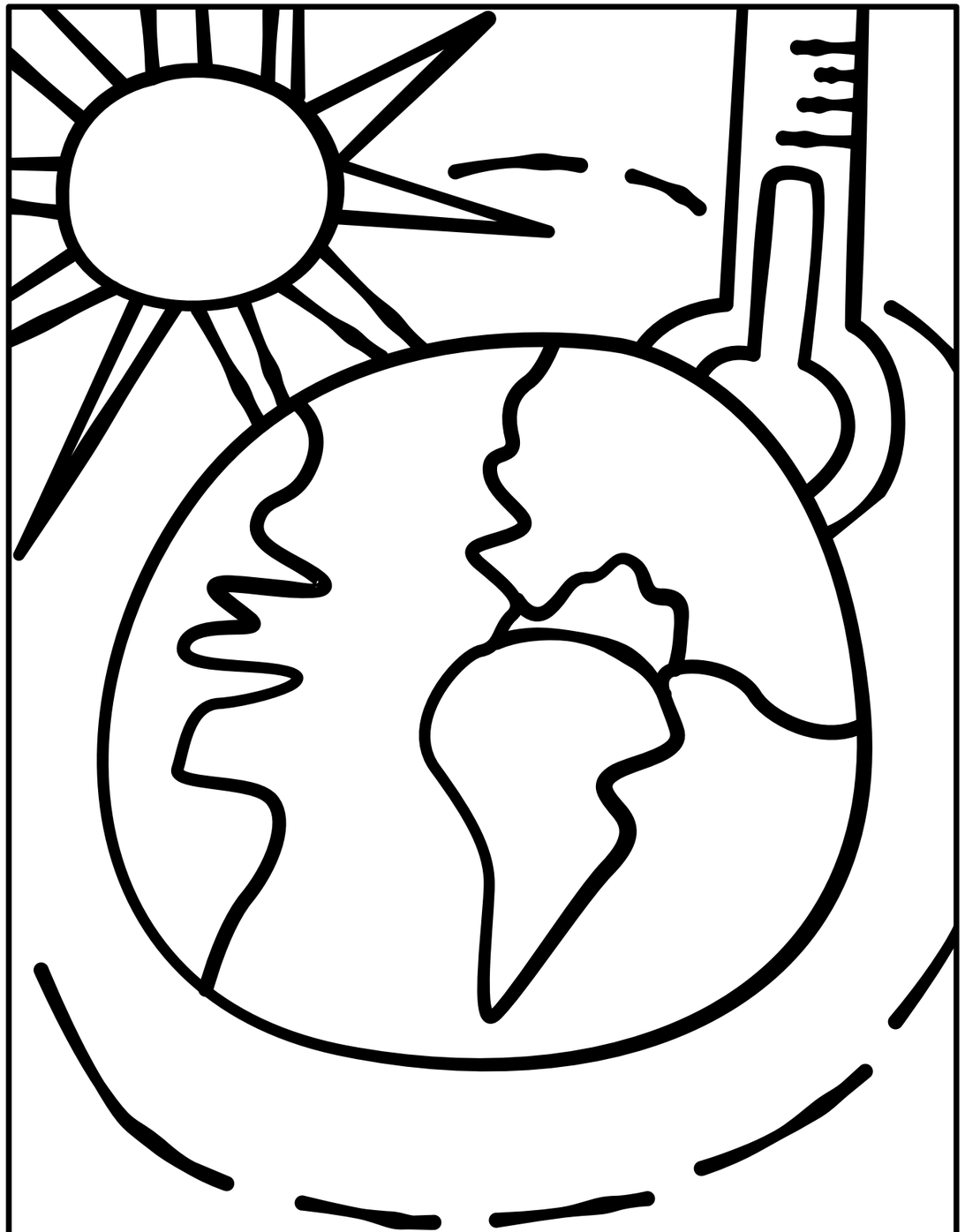

Figure 4
With the increasing number of greenhouse gases, more energy is trapped in the air. As a result, the Earth's temperature rises. This is what we call GLOBAL WARMING.

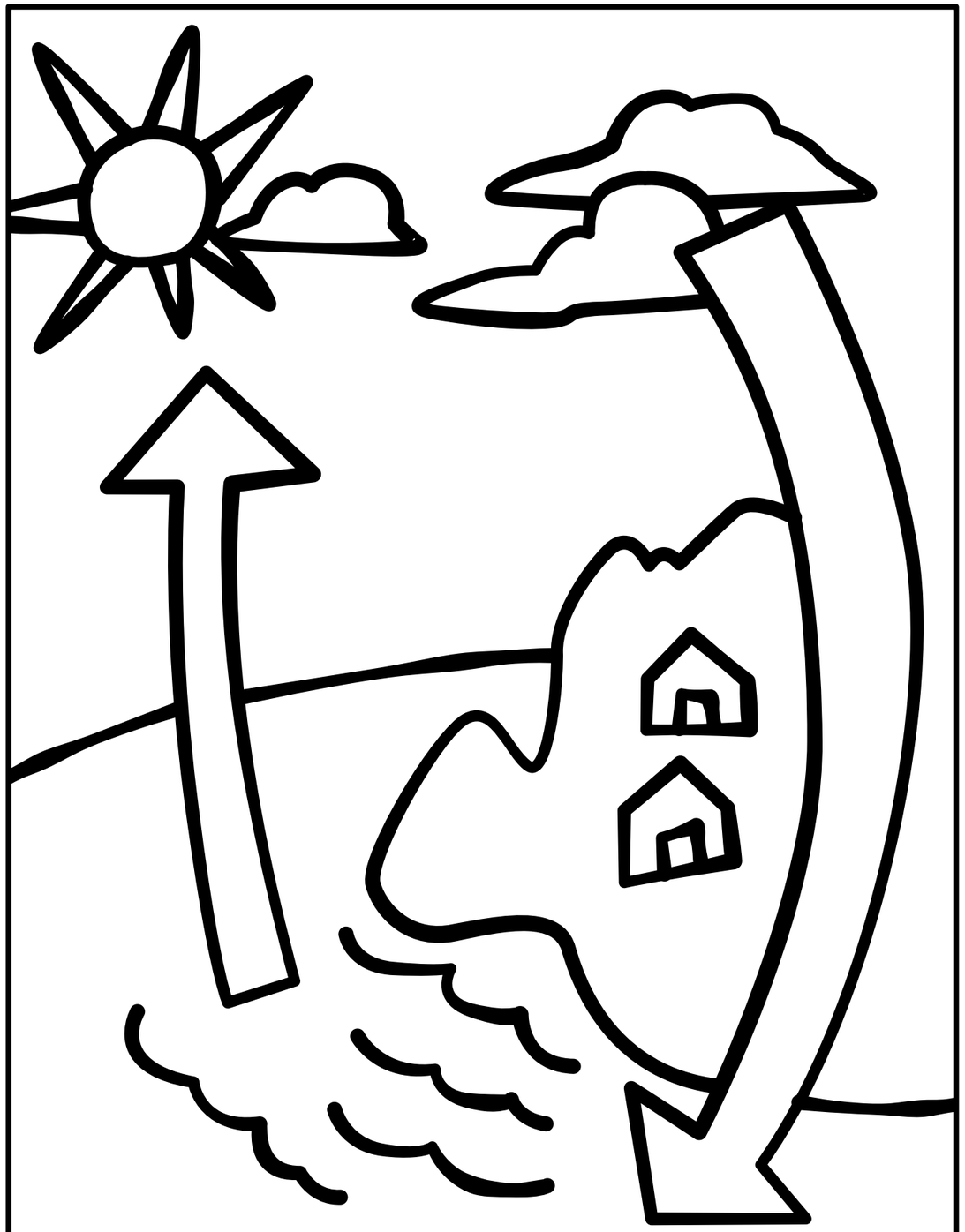

Figure 5
A warmer Earth affects weather systems over time. This condition causes changes in the expected weather or climate worldwide. We call this CLIMATE CHANGE.

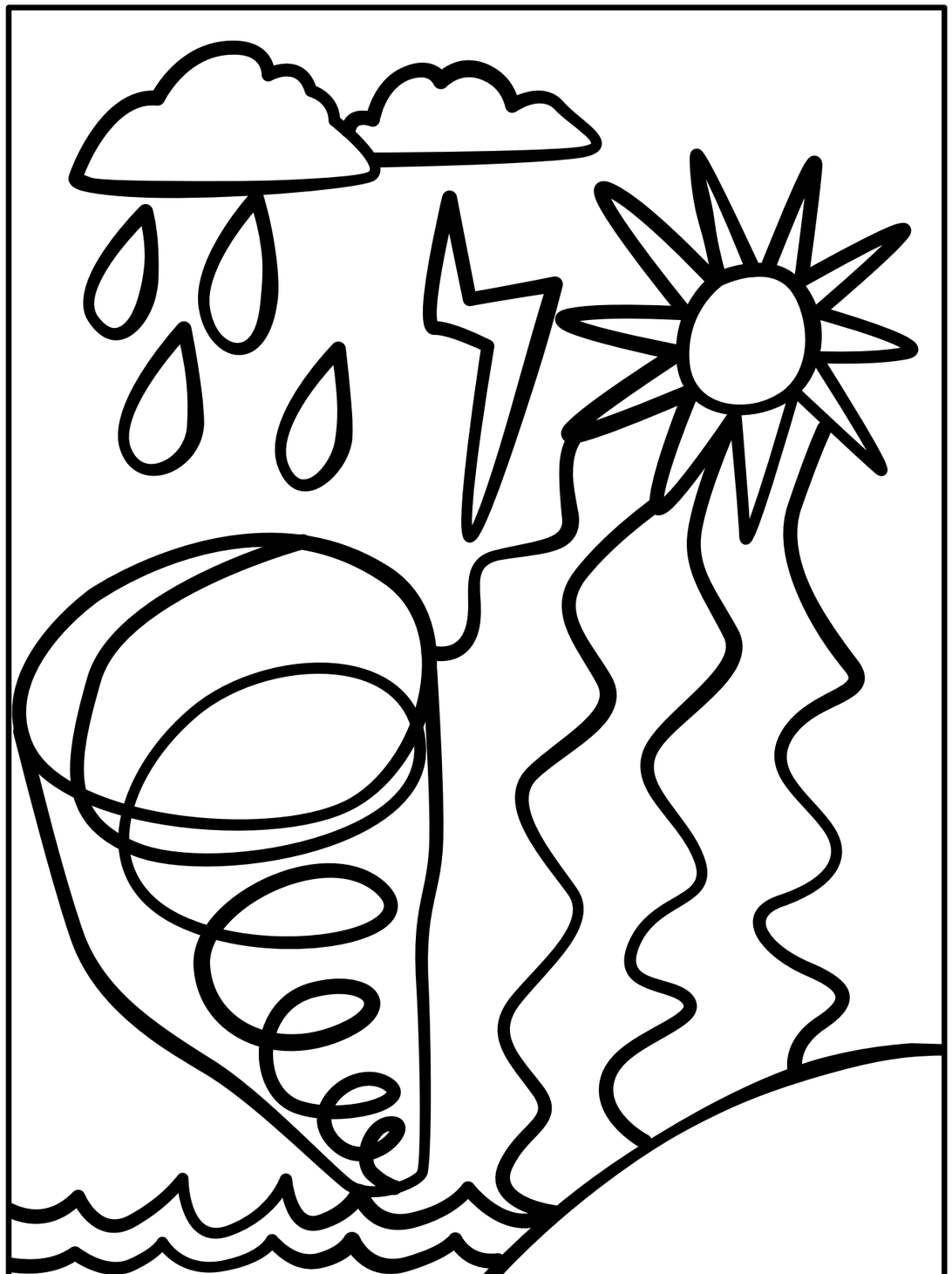

Figure 6
Climate change can worsen or increase the occurrence of extreme weather on Earth.

Notes:

Notes:

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