

A SAVVY KID'S GUIDE TO UNDERSTANDING CLIMATE CHANGE



### **FOREWORD**

Dear Young Readers,

Welcome! I am pleased you have chosen to read this book.

Through this book, I want you to start your journey towards understanding changes in the climate around the coast of Cambodia. As you read, I hope you gain more knowledge about the impacts of climate change on coastal fishing communities.

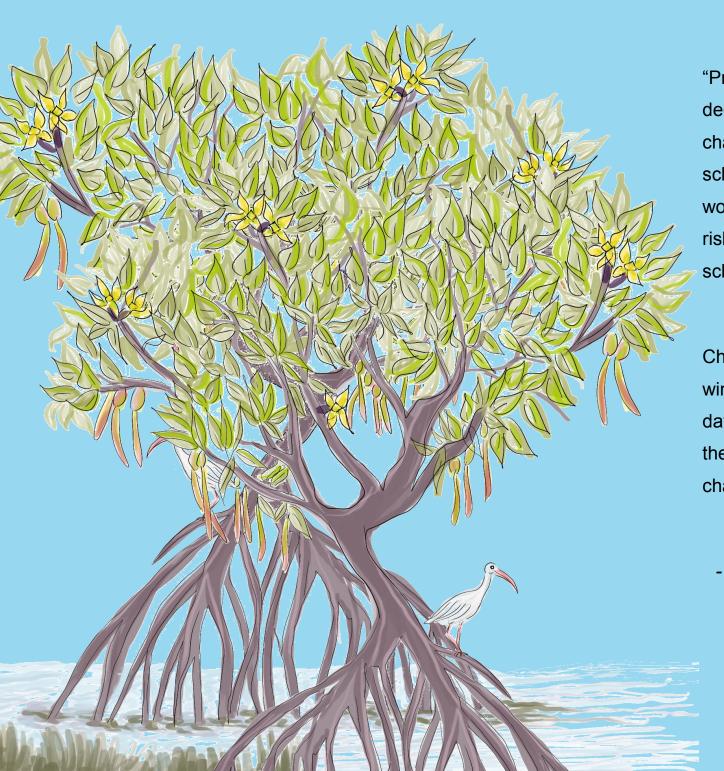
CWDCC has chosen to help fishing communities, such as the village of Trapeang Sangkae, to respond to the effects of climate change by - building community awareness about the environment, climate change and natural disasters; supporting fisheries; assisting conservation of coastal natural resources; investing in water supply, mangrove nurseries and an ecotourism centre.

Phou Teng,

**Executive Director** 

Children and Women Development Center in Cambodia (CWDCC)

Kampot Province, Cambodia.



"Promoting the voice of children and involving them in the decision-making process is fundamental to meaningful climate change adaptation... It is strongly recommended that children, school officials, the government and development partners work together in order to integrate climate change and disaster risk management concepts into the primary and secondary school curriculum.

Children often don't know what to do when heavy rains, strong winds or lightning come. Since the children spend most of their day in school, separated from parents, knowledge and skills on these matters are important for children to respond to climate change and disasters"

- CWDCC Mapping and Situation Analysis: Climate Change in Coastal Communities of Kampot Province

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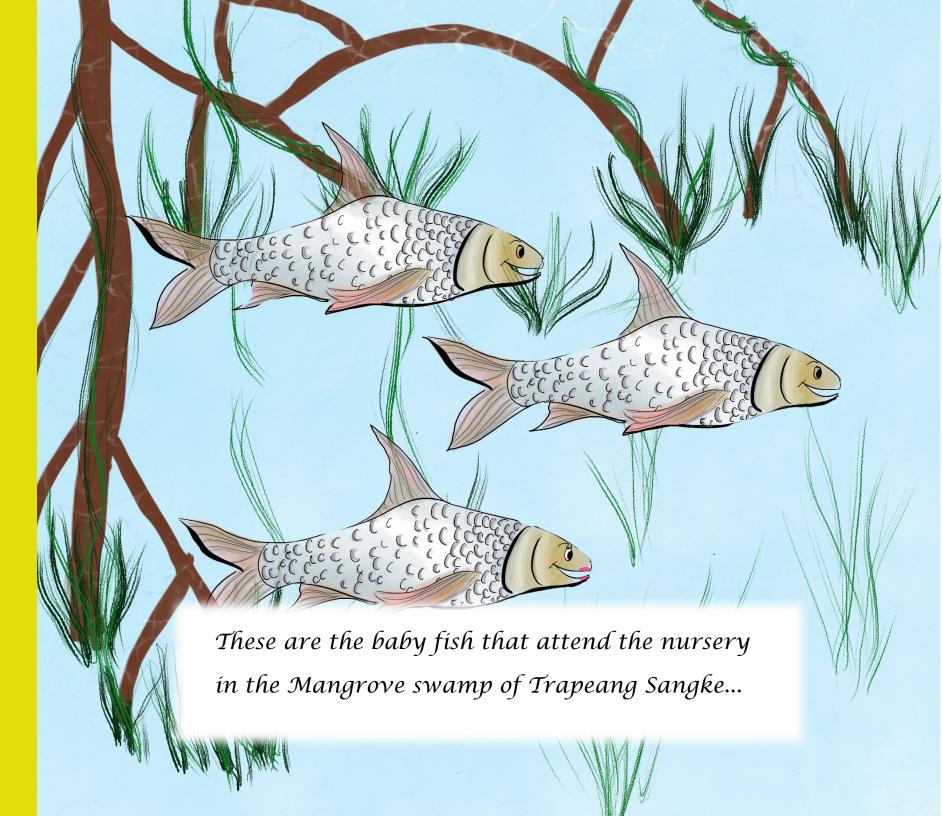
#### Note to parent(s) or guardian(s):

The 'big words' have been left intentionally unexplained so that your curious kids can spend time looking up word meanings. We have included some links that will assist you and the children in this quest.

#### Did you know?

Mangrove swamps and seagrass act as natural nurseries for young fish by protecting them from attacks and strong currents.

Mangrove swamps also help minimise coastal erosion from storms, reduce seawater contamination by filtering pollutants, and function as a carbon sink.



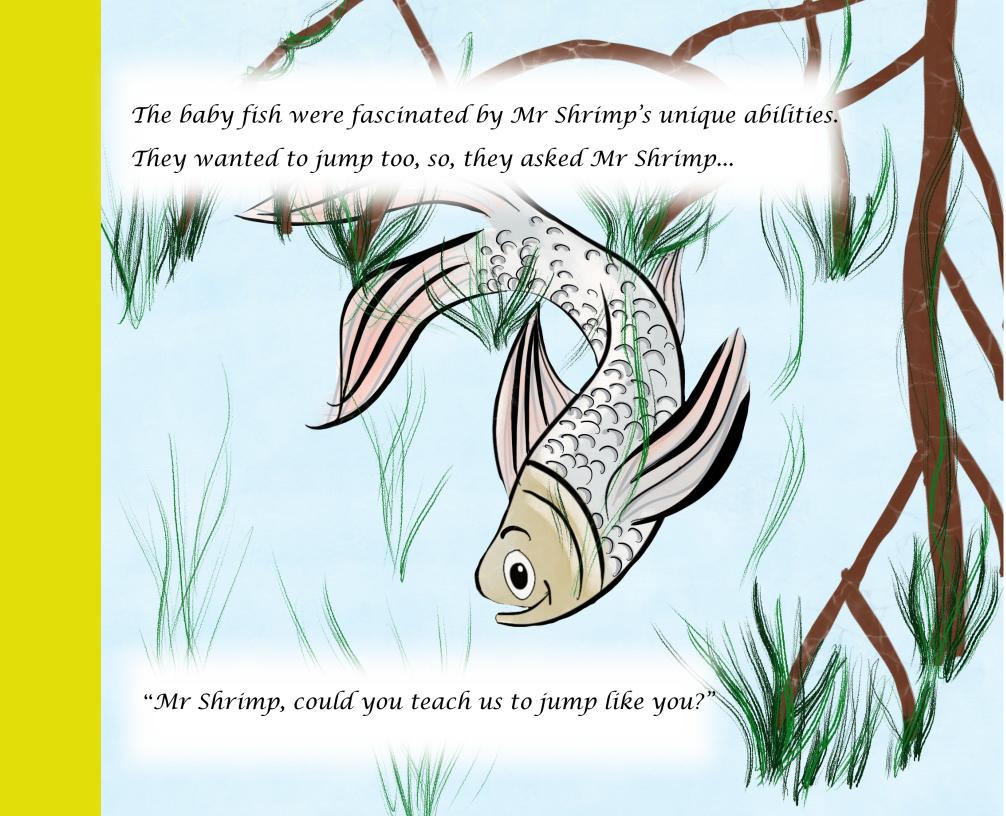
#### Mr Shrimp is their teacher.



He likes the fresh air.

## Did you know?

Higher sea temperatures caused by climate change can cause oxygen levels in the water to decrease. Low oxygen levels can make it difficult for certain marine life to survive.



"Of course", Mr Shrimp said. "It's easy."



"Close your eyes really tight, think of all the things that make you dance with delight, when you are so filled with joy, it is difficult to bare, you will find yourself jumping up in the air!"

#### Did you know?

Many fishing communities in Kampot are of Cham descent.

Trapeang Sangke is part of one such community.

Over the last few years, the quality and quantity of fish in the area has declined drastically due to climate change and overfishing. This has negatively affected the local communities and the ecosystem.



Soon all the fish were jumping in and out of the water.



Vary and Srey Mom lived in the fishing village nearby. They loved to walk on the bridge along the Mangrove forests, pretending to be patrol officers keeping an eye on the woods. They had seen the adults in the village do this many times.

#### Did you know?

The community members recognised that they had to manage their natural resources sustainably.

In 2008 the coastal communities and the government decided that they would fish responsibly in Trapeang Sangke.

Elected community members regularly patrol the areas to reduce illegal fishing and logging of the mangrove forest.



On one such walk,
they were surprised when they saw the fish jumping in and out of the
water. They carefully walked to the fish and asked:

"Hello little fish, why are you all jumping? How are you all jumping?"

All the baby fish were startled at first, but they had seen Srey Mom and Vary many times and knew they meant no harm.

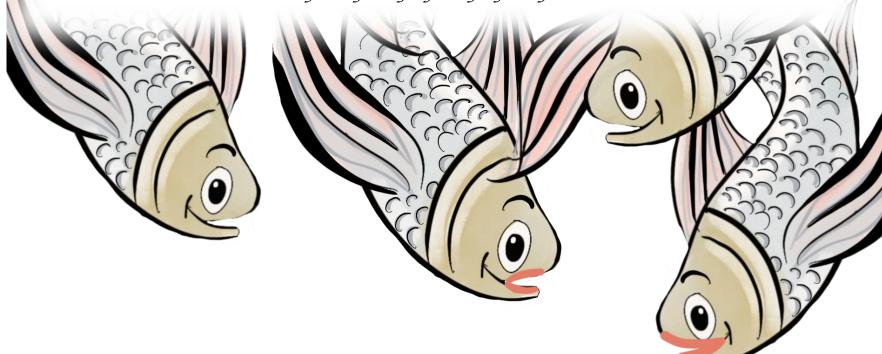
The fish replied:

"You should try it!

Be careful, be patient, at first you may flump,

don't stop trying,

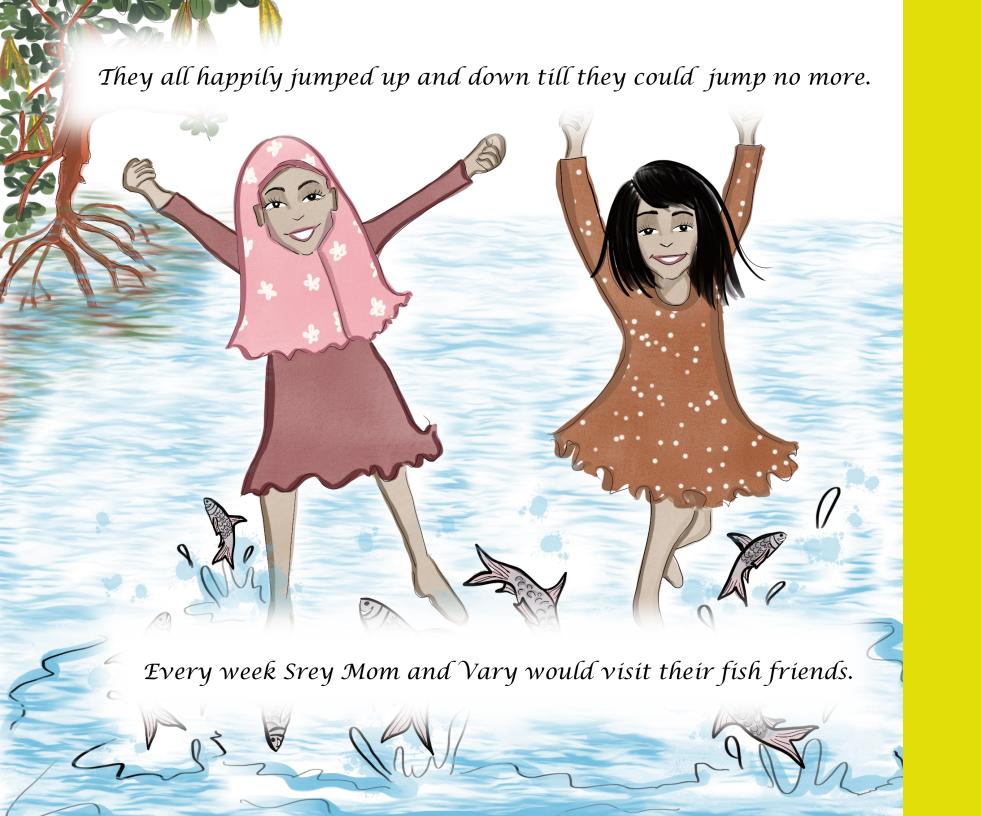
just jump! jump! jump!"

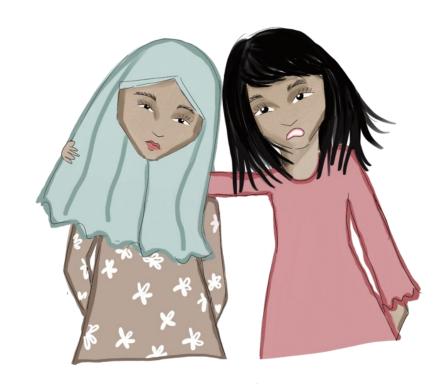


### Mr Shrimp chimed in to help,

"Close your eyes really tight,
think of all the things that make you dance with delight,
when you are so filled with joy, it is difficult to bare,
you will find yourself jumping up in the air!"







One evening, when Srey Mom and Vary made their way to the nursery, they were horrified to see that the nursery had been cut down.

They frantically searched the waters for their friends. Eventually, they found one of the baby fish.

"Where is Mr Shrimp?", they enquired.



The fish recounted the sad events of the previous night: "Two men came in the dead of night and cut down the nursery! They also took Mr Shrimp, his family and the other fish."

"I survived because I hid in the seagrass!"



# Did you know?

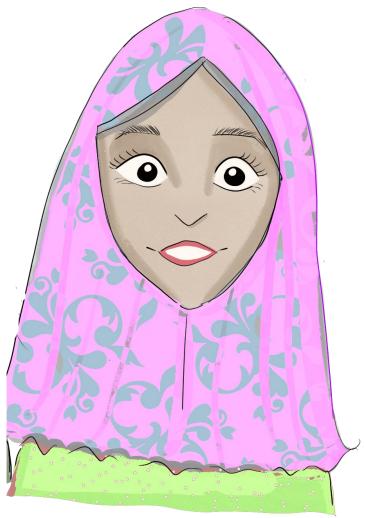
Logging of the mangrove forest is illegal, and there are clear laws controlling fishing methods and zones. Nevertheless, poor community members sometimes cut the mangrove trees to make charcoal, or go fishing where they are not allowed. They do this because they do not have other means to support their families.



They could not believe that Mangrove trees had been illegally cut down.



## Vary was more hopeful...



There must be a way to stop this from ever happening again! Let's ask teacher Ly Chhay, she will have some advice for us. Ly Chhay was their class teacher. She often discussed the environment in her classes.

The girls ran to Ly Chhay's house to discuss the events that had transpired. Ly Chhay listened patiently.



"I am so glad that you girls came to me!

Of course, I will help you.

However, girls, keep in mind that for real change, you will have to be patient and persistent."

"A decade ago the situation was much worse. The Mangrove forests and the fish were almost gone. The community realised that they needed to take action. They decided to stop cutting trees and over-fishing."



"However, a few people continue to cut down Mangrove trees illegally."



Why do they do that?





Often, they do it to earn an income and feed their families.

# Did you know?

Most of the community members earn an income by fishing and growing rice. About a quarter of the population runs small businesses like grocery stores, and a third, earn an income by working in clothing factories, construction sites and other people's farms.

Fishermen and women usually earn up to 10 USD a day.

#### Did you know?

According to some community leaders, three out of four people in the community actively engage in environment conservation.

Fishery protection committees do their best to educate the community on the value of sustainable fishing and Mangrove conservation.



"While the adults of the community look for ways to reduce such activities, would you like to help me educate people about the importance of Mangrove forests and Seagrass?"

The girls were really excited. They always wanted to be part of the community's efforts to protect the environment.

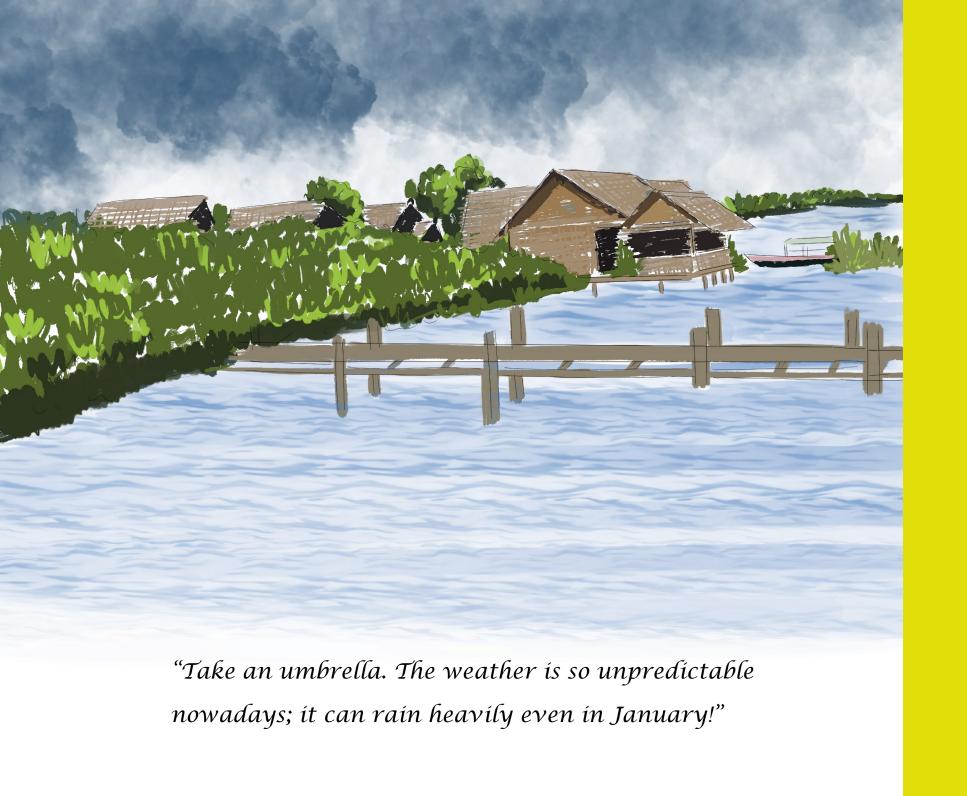


They squealed in delight: "When can we start?"

Ly Chhay looked out of the window and noticed that dark clouds were forming in the sky.

"Girls, It is getting dark outside. Go home and rest today, we can work on a plan tomorrow."





That night the girls went to bed excited...



### Vary dreamt of her fish friends.



"Close your eyes really tight,"

think of all the things that make you dance with delight,

when you are so filled with joy, it is difficult to bare,

you will find yourself jumping up in the air."







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## **ACTIVITY 1:**

Record how the day feels every day, for a week. What is the temperature? Is it raining? Is it cloudy?

Ask an adult for assistance with words to describe the day.

Day 1:			
Day 2:			
Day 3:			
Day 4:			
Day 5:			
Day 6:			
Day 7:			

Did you notice that the **weather** varies from day to day, some days are hotter than others, it rains on some days and not on others?

**Climate** is the average weather in a place over a long period of time. While the weather can vary every day, climate takes much longer to change – decades, centuries or even millennia.

# **SO, WHAT IS DIFFERENT NOW?**

ACTIVITY 2:	
On your next visit to an elderly relative's house, ask them two questions:	
What did the village or community look like when you were my age?	
How was the climate different then?	

Changes in the climate have always occurred. In the past, most of these changes happened naturally. Now, however, burning of fossil fuels, large scale deforestation and other human activities have increased the amount of harmful gases, like carbon dioxide, released into the atmosphere. **Human activities** are now key contributors to climate change.

### **UMM...SO?**

The earth is heating up at a much faster rate than ever before, resulting in things like changes in rain patterns and increased extreme weather events, such as storms.

## **ACTIVITY 3**

Can you guess some other impacts of climate change? Ask an adult for assistance.

H\_AT\_AV\_ S

R\_SI\_G SE\_ LE\_\_LS

M\_LTING OF \_C\_ CA\_S

Heatwaves Rise in sea levels Melting ice caps



### WHAT ARE THE CONSEQUENCES OF THIS?

- Spread of diseases
- Changes in seasons effect local farmers and their ability to grow food
- Damage to the economy, transportation and infrastructure after extreme weather events
- Changes in the natural environment causing habitat loss and loss of animal species

## **CLIMATE CHANGE IN TRAPEANG SANGKE**

Trapeang Sangke Fishery Community is a conservation and learning area in the commune of the same name, located in Kampot, Cambodia. It was created to preserve the area's natural resources - the mangrove swamps, the coast, native fish and marine life.

The community operates on the principals of ecotourism and climate change adaptation.

Approximately 5000-6000 people visit Trapeang Sangke every year.

#### What is Ecotourism?

Tourism that is directed towards bringing together conservation and conscious travel while supporting local communities with the aim of minimising negative impacts.

## PEOPLE OF TRAPEANG SANGKE TELL US ABOUT HOW CLIMATE CHANGE HAS AFFECTED THE COMMUNITY:



## THE BIG WORDS DIRECTORY

# សម្រង់ពាក្យសម្គាល់

Hey, kids! How many of these word meanings can you find?

តើប្អូនអាចរកនិយមន័យនៃពាក្យខាងក្រោមបានប៉ុន្មាន?

Adaptation ការបន្ស៊ាំ

Atmosphere បរិយាកាស

Carbon Sink អាងស្តុកកាបូន

Catastrophic គ្រោះមហន្តរាយ

Century សតវត្សរ៍

Cham ជនជាតិខ្មែរឥស្លាម

Coastal តំបន់ឆ្នេរ

Commune ឃុំ

Conscious ប្រកបដោយមនសិការ

Consensus ជារួម

Consequence ផលវិបាក

Conservation ការអភិរក្ស

Contamination ការបំពុល ឬធ្វើឲ្យកខ្វក់

Decade ទសវត្សរ៍

Deforestation ការកាប់បំផ្លាញព្រៃឈើ

Fossil Fuels ប្រេងឥន្ទន:ផូស៊ីល

Habitat ដែនជម្រក

Millennium សហសុវ្រត្សរ៍

Native ដើម

Species ពូជ

Sustainable និរន្តរភាព

Swamp វាលល្បាប់ភក់

Transportation គមនាគមន៍

#### **HOW THE BOOK CAME TO BE...**

This book was produced with funding from the Asian Development Bank (ADB), Technical Assistance Project - *Mainstreaming Climate Resilience into Development Planning* – supported by the Pilot Program for Climate Resilience (PPCR) of Climate Investment Funds (CIF).

Plan International Cambodia and its partner CWDCC (Children and Women Development Center in Cambodia) worked to build awareness about climate change in the coastal communities of Kampot province. They also supported patrolling activities, and funded investments in ecotourism infrastructure to sustain livelihoods and provide incentives for environment conservation in the target project areas. The project lasted 19 months under the Mainstreaming Climate Resilience into Development Planning – Civil Society Support Mechanism (MCRDP-CSSM).

Information about Trapeang Sangke, shared in the yellow boxes of this book, was collected from project start-up (2015) vulnerability reduction assessments (VRAs) and research (2017) conducted by an independent consultant, comprising of focus group discussions, surveys and interviews with men, women and children of the community.



















#### **USEFUL LINKS**

www.nationalgeographic.com/family

climatekids.nasa.gov/big-questions

www.camclimate.org.kh/km

www.camclimate.org.kh/en

dictionary.cambridge.org

www.everyculture.com

https://www.facebook.com/kampotmangrove.forest

Child friendly information on a range of topics from climate change to

NASA's child friendly guide to climate change

**Cambodia's Official Climate Change Website (Khmer)** 

Cambodia's Official Climate Change Website (English)

Great website to help with word meanings

Awesome website to learn about cultures around the world; Good place

Trapeang Sangke's Facebook page

<sup>\*</sup>All links were active at the time of publication .

<sup>\*\*</sup>The links provided a base for the non-fiction sections



This book was authored by volunteers from Plan International Cambodia and CWDCC (Children and Women Development Center in Cambodia, www.cwdcc.org) as part of the ADB project to mainstream climate change into development planning.

The illustrations were done by N. Joseph.