



# THE SPROUTS

## AND THE MYSTERY OF THE DROUGHT

Written by  
The Guyana Youth & Environment Network

Illustrated by  
Vimaldat Bissessar



A book about land issues, groundwater & renewable energy  
for children

# The Sprouts and the Mystery of the Drought

**A Book about land issues, renewable energy, and groundwater for  
children.**

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Published in collaboration between The United Nations Guyana, The  
Ministry of Natural Resources & The Guyana Youth and Environment  
Network.

## Acknowledgement

This storybook is based on effects of climate change on our surroundings and hinterland communities. We wish to express heartfelt thank you to our donors on this new series of the Sprouts. Thank you for believing in our vision and making it a reality. Our sincere gratitude to our readers that provided a great review on the last series of the Sprouts, your words motivated us to continue capturing the climate crisis in a way for our children to understand.

Special thanks to our editors and reviewers **Madhavi Indarjeet, Bonita Bernard, Romario Hastings, Rehana Thomas and Tiffini Thomas** for reviewing our story and giving feedback to ensure it captures the Indigenous community well. Thank you to for your support and guidance throughout the process is greatly appreciated.

We, the writers only write the books, and you, the readers finish them.

May the Sprouts provide you with the inspiration to help your community and be the beacon for change.

'I do believe something very magical can happen when you read a good book'

– J. K. Rowling

## Meet the Characters



**Lily** is named after the flower. She is nine years old and enjoys reading and being out in nature. She also enjoys helping her parents on the farm. Lily is of Indigenous heritage.



**Shamar** is in Grade four and he just turned nine years old. All animals are his favorite type of animals. He is of Afro-Guyanese heritage and one of his dreams came true when Uncle Tombo allowed the Sprouts to fly in his helicopter.



**Asha** is eight years old, and she is of Indo Guyanese heritage. She enjoys all things biodiversity and can tell you about all the diverse flora and fauna in Guyana.



**Tim** is the artist of the group. He loves nature photography and taking goofy photos of his friends. He is ten years old and loves tinkering with technology. He is of mixed-race heritage.





**Mia** is the cousin of Lily. She is 8 years old and lives within the savannah region of Guyana. Before the drought affected her village, Mia spent most of her days helping her father on the farm and fishing by the creek.



**Mia's Dad** is the **Toshao** of the village and uncle to Lily. He is a great leader and will do anything to ensure the village is cared for and the villagers are happy.



**Grandma Alo** is the village elder and grandmother to Lily and Mia. She has lived within the Rupununi Savannah's all her life. Most of her days, she spends making many crafts and objects with materials she gathers from her environment.

# Chapter 1

## A New Adventure

Lily sat in her room trying to decide how she was going to spend her break from school.

"Maybe the Sprouts and I could ask Uncle Tombo to take us on a trip with his Helicopter", she quietly said to herself.

*"Bzzzz Bzzzz ... Lily? Lily are you there?"*

The radio in Lily's room went off, surprising her. The voice on the other end sounded familiar to her.

"Hello? Is this Mia?" Lily asked.

"Yes! Hi Lily, how are you? It is so nice to hear your voice," said Mia.

Mia is Lily's cousin who lives in a remote Indigenous village far in the savannah region of Guyana. Her village has no access to telephones, so the radio is their only means of contact to the coast.

"I am so happy to hear from you too Mia! How are you and how is your family?" Lily happily asked.



"This is why I contacted you. Grandma Alo is sick and really needs some medication. Could you have some supplies sent to the village?", Mia asked.



"Don't worry Mia, I will ask Uncle Tombo to bring the supplies for you", Lily reassured Mia. "The other Sprouts and I will come as well"

"Thank You so much Lily!", Mia shouted happily through the radio, "I can't wait to see you!"

Later that day, Lily called the Sprouts on a video call.

Shamar was looking at a television show about animals, Asha was tending to her plants and Tim was busy fixing something at his desk.

"Look at what I made", said Tim.

He was showing the Sprouts a model of a Windmill he made from watching a YouTube video. He opened his window allowing the wind to spin the small blades. When it spun, it powered a small bulb on his desk.



"That's so cool", said Lily, "but we have bigger things at stake here".

Lily told the Sprouts that she needs to take some supplies for her cousin's village, and she could use their help.

The Sprouts agreed to help, and they all made their way to trusty Uncle Tombo.

"Uncle Tombo! Uncle Tombo!", the Sprouts called out in front of his yard.

An elderly man came out with a smile, "well if it isn't the Sprouts! How are you kiddos?"

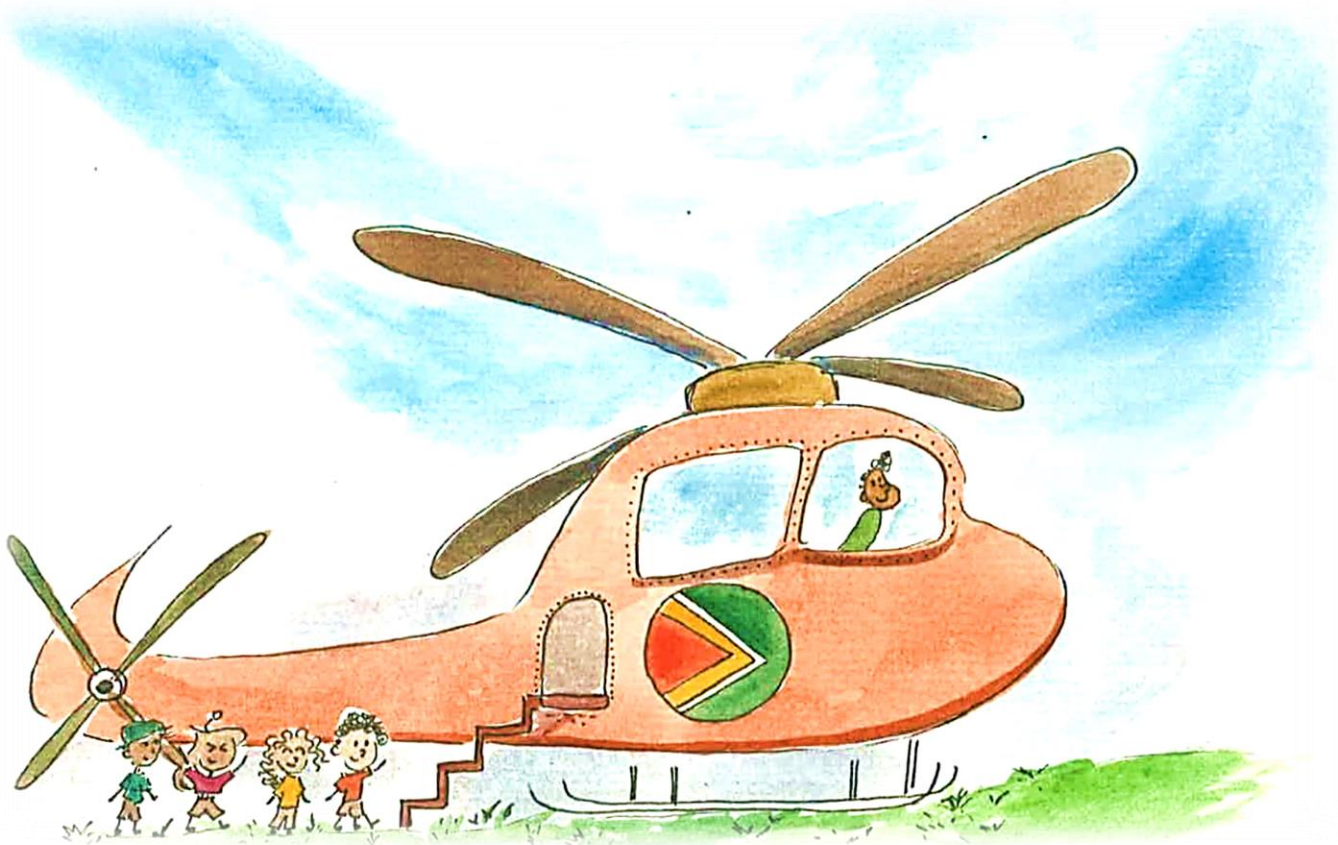
"We are doing great, but we need your help", Asha stated.



The Sprouts explain to Uncle Tombo about Lily's Grandma and her village.

"Well, I just refueled the helicopter, so to the SKIES!"

The Sprouts and Uncle Tombo got into the Helicopter and made their way to Mia's village.





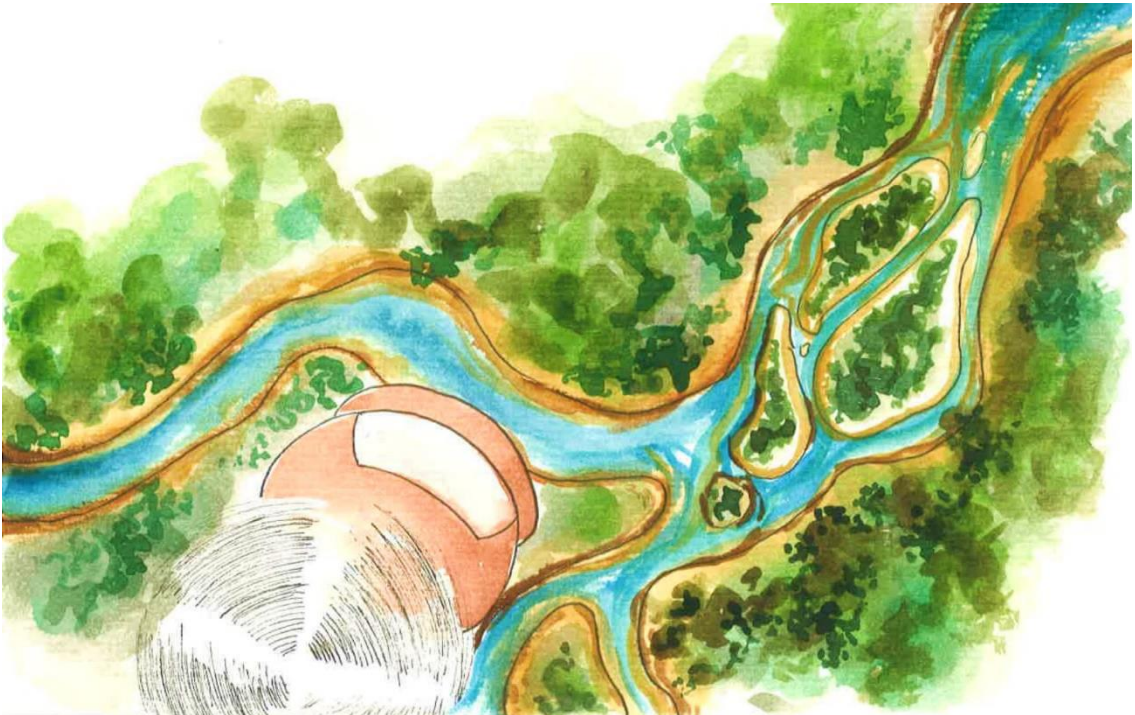
## Chapter 2

### The Land of Many Waters

The bright red helicopter soared above the Mangroves and seaside of Guyana's coast.

"No wonder they call Guyana the Land of Many waters", said Asha as she pointed to the many meandering rivers and streams.

"There must be a billion animals living in these forests, maybe one day we will be able to explore it", Shamar said as he gazed on the dense rainforest.



After some time in the air, the scenery changed, from the coastal plains to the dense rainforest. After sometime the mountainous savannah lands appeared in the distance.



"This sight never gets old", Uncle Tombo quietly said, "Guyana is quite a beautiful place.

Deep in the remote part of the savannahs, between the mountains, Mia's village can be found.

As the Helicopter began to land, Lily noticed her cousin waving from the ground. Mia's dad, the village Toshao was also there waiting along with some of the villagers for the Sprouts arrival.

"That's Mia and her dad, The Toshao", said Lily pointing to her family on the ground.

"What's a Toshao?", asked Tim.

"A Toshao is the leader of an Indigenous community", explained Lily.

Once the Helicopter landed, The Sprouts greeted everyone, Lily ran and gave her cousin a big hug.

"Oh, I missed you so much!" Lily exclaimed.

"I missed you too Lily! Thank you so much for coming", Mia exclaimed.

"I've seen the good work you children have been doing", said Mia's dad, "Word of how you helped your village has made its way here, and we are incredibly proud."

The Sprouts thanked Toshao for his kind words and stood looking proud.

Uncle Tombo smiled hearing this.

"Thank you for bringing these supplies for the village", Mia's dad said, "but maybe you Sprouts could help our village also".





The Sprouts looked around. This was not the village Lily remembered. The creek where the boys swam and fished in was dried up and the lush green savannah grass was now dry and yellow.

"As you can see, the sun has not been kind to us", said Mia's dad, "and it's been a long time since we have seen the rains".

"This is definitely a Drought", said Shamar as he covered his eyes from the sun," and if we don't get some shelter soon, we will also be dried up".

"Droughts are one of the devastating effects of Climate Change", said Tim. "As the global temperature rise, more water is being evaporated, leaving less water behind".

"It will affect other Indigenous villages such as this one", said Lily. "People in remote locations will be more vulnerable to the effects of Climate Change".

"That is why your grandma got sick", said Asha. "older people are likely to be affected the most".

"Let's go see Granny" said Mia, "she would be delighted that you came".



## Chapter 3

### Grandma's Story

The Sprouts made their way to Mia and Lily's Grandma's home. As they walked through the village, they noticed many changes because of the drought.



"As you can see, our wells are almost dried up", Mia said pointing to the wells, "They are our last resort, and they are barely helping us now. They aren't enough to aid us and the farms."

"I am afraid if we don't get water soon, all the villagers will have to move", Mia's dad said sadly.



"Granny would not want to move from here", Lily said, "these lands have been her home since she was a little girl".

Grandma Alo lived in a small quaint house. It was beautifully painted. The small flowering plants she had around the yard were now wilted.

Grandma Alo laid down in her hammock that she made herself. Her home was filled with handmade baskets and furniture, as well as many little ornaments of animals made from balata.



"It's so nice to see you dear", she said as she saw Lily, "look at how much you've grown".

"It's so great to see you too Granny," Lily said as she hugged her grandmother, "these are my friends - Tim, Asha and Shamar." She explained, pointing the Sprouts out. "We brought these medications for you and to help the village".

"You know I prefer my natural herbal medication", said Grandma Alo as she looked at the tablets Lily brought "but ever since the drought, all the plants died"

Grandma Alo began telling the Sprouts that she could feel the drought coming from the changes in the environment. The Sprouts all listened keenly to Grandma Alo's story.

"We the Indigenous people are connected to the land", she said, "I could feel the changes coming, and since the land started to get sick, so did I", Grandma Alo continued.

"Our people could sense changes in the environment, whether they are bad or good, but recently, the bad changes have doubled, and we could not have been more unprepared for this drought. I felt the changes in the wind, the behavior of the animals and the small changes in the environment that told of an incoming change".

"It's amazing how these little signs can tell us of incoming danger", said Asha, "I wish more people would be this connected to their environment".

"Don't worry Grandma Alo", said Asha reassuringly, "I promise the Sprouts will come up with a plan to help the village".

## Chapter 4

### Effects of the Drought

The Sprouts waved uncle Tombo goodbye as they were staying to help the village.

Mia's dad took the Sprouts to the farm. Here, they saw empty farming beds, dried up green plants, with the only surviving plants being cassava.

"The Cassava plant could tolerate long periods of droughts", Mia's dad explained, "that is why it's one of our main staples".



"I am afraid though...", Mia sighed, "our back- up food supply would finish if we don't do something quickly".

One of the villagers accompanying the Sprouts to the farm pointed to the distance and said "These lands were once populated with animals but as you can see, the land is now barren with no signs of life".



"It's true" Mia's dad continued, "if we need to hunt or fish, our villagers will have to travel very long in order to bring back food".

Tim went to take a picture, but something seemed wrong with this camera. He looked at his camera, "it may seem as though my camera is out of battery", he said.

"It looks like you need to charge it," said the Toshao, "but our



village does not have electricity."

"We do have a generator", said Mia, "but it has been giving us a lot of problems and it's really hard for us to get fuel right now."

Shamar kicked the dry dirt with his foot disappointingly. He looked keenly at the ground and then looked up at everyone happily.

"What's with the look?", asked Asha, "You look like you have struck gold."

"I may have a plan to save the village", said Shamar, nodding excitedly.

## Chapter 5

### The Big Idea

In the middle of the village stood a large benab, this is the villagers' meeting place. The Sprouts, Mia, Toshao and a few villagers gathered here.

"In school, we learnt about aquifers", explained Shamar, "these are large bodies of rocks saturated with groundwater. If we could pump the water up, it could help refill the wells and help with replenishing of the farms".

"How did the water get there?" asked Asha.

"Well..." said Toshao, "when the rain falls, large amount of water is stored underground".

"The water is very important, especially in droughts," Shamar added, "when there is a lack of surface water, groundwater becomes very vital".



One of the villagers pointed to the main well in the middle of the village.

"That well has been dried ever since the drought, its pipes run deep underground and maybe we could pump the water up and use that for the farms".

"It's a great idea", Toshao said, "but remember our generator is currently not working and we don't have enough fuel to make it work".

As the group think of a solution to this problem a gust of wind

blew the hat off one of the villager's head. The hat flew toward Tim who caught it. Tim looked at the hat and started smiling.

"Maybe we don't need fuel to run the generator", said Tim, "there are other natural ways to produce the energy needed for this pump".

Tim remembered his model Wind Mill he made, he showed the Toshao and said, "if we build something larger to this, we can be able to pump the water up, using the power of the wind".

"This might be a hard task to complete", said one of the Villagers

"No tasks are hard once we work together", Asha said, "together we can get anything done".

Just as Tim was describing his plan, one of the villagers ran up saying Grandma Alo is feeling worse.

"Come quick!" they said, "It seems like Grandma Alo is getting a fever".

Mia and Lily went with the Villager to tend to Grandma Alo.

"Don't worry", said Tim, "we will get this Windmill up and working".

## Chapter 6

# Power of the Wind

Shamar, Tim and Asha, with the help of the villagers, gathered tools and supplies to build the windmill, while Lily and Mia went to tend to Grandma Alo.

"How do we even begin this project?" asked Asha. "I still don't fully understand how we can generate electricity using the wind."

"It's actually quite simple," Shamar said. "Firstly, we would have to figure out the ideal spot to build the windmill. An open area without any trees blocking the wind would be best."

"Also, an ideal location would be away from the airstrip and somewhere the noise would not affect the village and environment", Tim suggested.

"We also have to be mindful of the birds", said Asha.

"That sounds simple enough!" chimed in one of the villagers. "We can set it up right here."

Shamar explained: "So as the wind blows, the propellers on the windmill would spin. This would then cause the rotor to turn. The rotor is attached to a shaft which will be connected to the

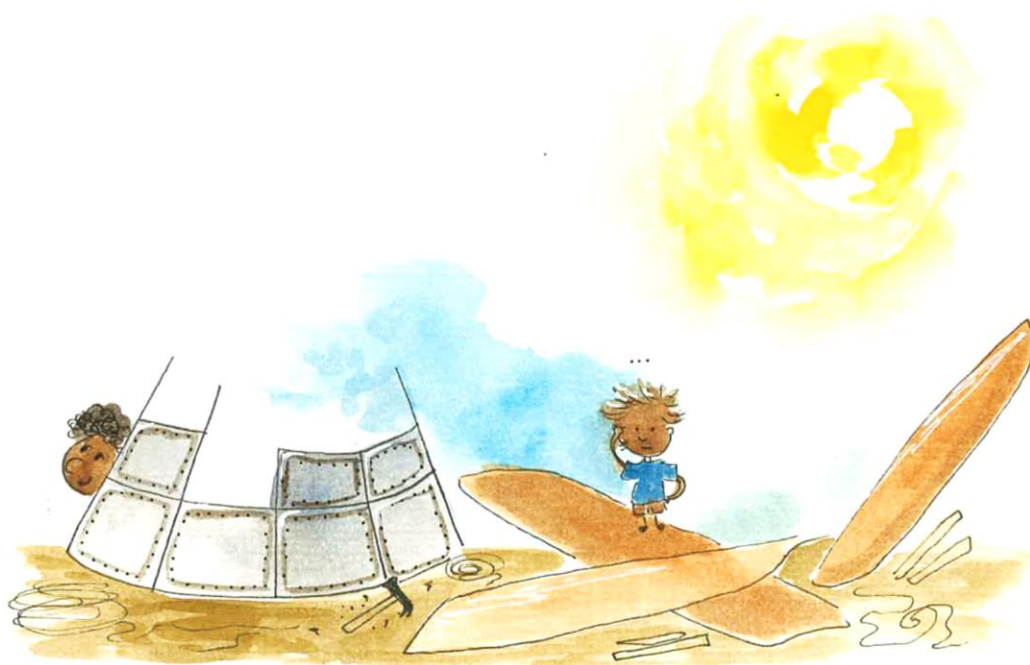
generator, and when the shaft spins, the generator will produce the electricity."

"That's so cool!" Asha exclaimed. "Now the Villagers wouldn't have to wait on fuel to be flown in from the coast," said Tim.

"It will be such a relief for us financially too," one of the villagers said.

"And the energy produced will be much more sustainable and better for the environment," said Shamar.

"We can begin by gathering up materials from around the village that can be useful to us," Shamar added, "So we can use bamboo for the structure and shaft, maybe an old bicycle wheel as the rotor, and the zinc sheets from the old village shop as the propeller blades."



"That's a very innovative idea, Shamar!" Asha exclaimed. "Such a clever way to give these old things a new purpose," she said.

"Well, enough talking...let's get to work!" Tim exclaimed.



## Chapter 7

### A Renewable Masterpiece

After hours and hours of working hard in the hot Rupununi sun, the windmill begins to take shape.

"Wow Shamar! It looks just like the one you showed us during the video call," Asha and Tim said.

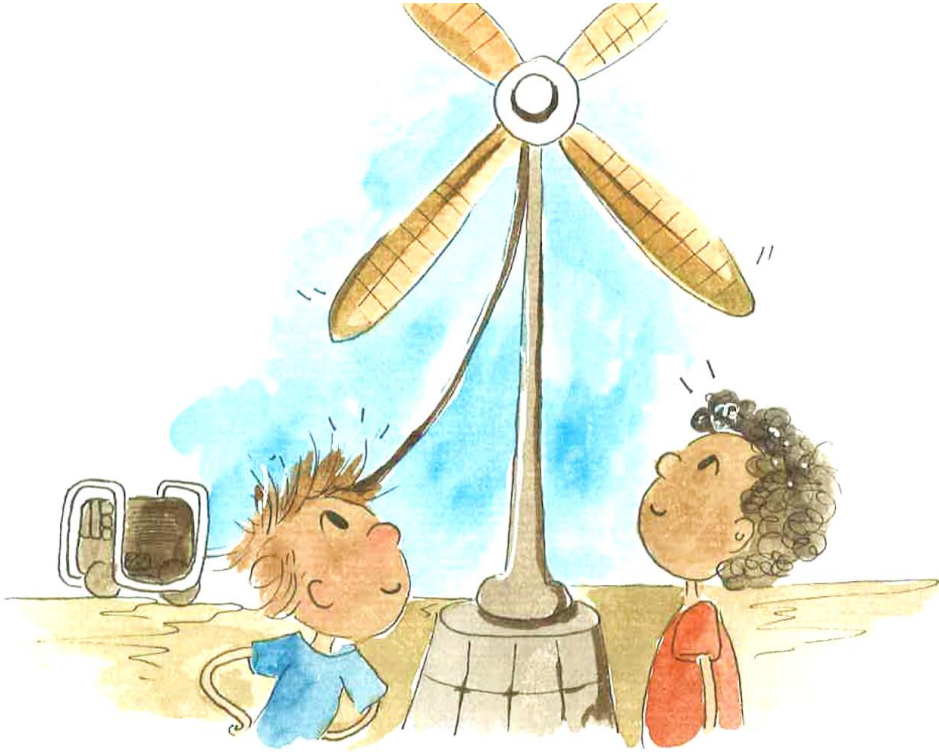
"Not bad for something built from materials right within our village here," said one of the villagers.

"This goes to show what teamwork, innovative thinking and a little creativity can achieve!" said another villager.

"We worked hard together to make this idea come alive...now let's put it to the test!" Shamar said. "All that's left to do is to connect it to the generator, wait for a strong gust of wind and hope for the best," he added.

"Everything is connected now. The project is finally complete," Shamar said.

"And now we wait," Asha said.



They waited and waited, and much to their dismay, no breeze that was strong enough to spin the propellers of the windmill came.

"I'm going to go check up on Grandma Alo and the girls while you guys wait," Asha said.

\*Asha makes her way to Grandma Alo's home\*

"Grandma Alo! Lily! Mia! Is anyone home?" Asha exclaimed.

"Hi Asha! Come right in!" Lily said.

"How is the windmill project going?" Mia asked

"We've actually completed it!" Asha said excitedly "We're just waiting for some strong breeze to blow to test it out," she added.

"But the breeze doesn't seem to want to blow now," said Asha.

"Don't you worry child," Grandma Alo chimed in. "You just need to have a little bit of patience, and a whole lot of hope," she added.

"I would very much like to take a look at what you guys built," Grandma Alo said. "Do you girls mind taking me to see it?" asked Grandma Alo.

"Of course, we don't mind! Grandma Alo" Asha exclaimed. "Let's go right away!" she added.

"Wow, this looks incredible!" Lily said.

"I can't believe you guys managed to build this on your own!" Mia added.

"It truly is a work of art," Grandma Alo said quietly to herself.

"We just need the breeze to blow now to see if it'll work," Shamar explained.

"The breeze will come, Shamar," Grandma Alo said. "What's good for the environment is good for the people. When mother Earth sees you helping her, she would help you in return," Grandma Alo

said wisely. "We just need to give her a little bit of time," she added.

"Look, look! The propellers are starting to spin!" Tim shouted.

"It's working!" Asha said excitedly.



## Chapter 8

### Saving the Day

The Windmill began to spin continuously and after a short time water began sprouting out of the taps. The Well began to refill and the villagers cheered, and everyone hugged.

The Sprouts now stood proud at what they've done.

"You kids have done it", Grandma Alo congratulated, "Your innovativeness and cooperation with the villagers helped to save the village".

Grandma Alo who now looked much better than before, was standing looking at the village as the villagers parade around with happiness.

The Sprouts stayed to ensure that the wells were filled, and the farms were being attended to.

In the distance the Sprouts heard two helicopters approaching, one was bright red and one was yellow with the Guyana flag at the side of it.

"That helicopter is Uncle Tombo, but who is the other one?" Lily asked.

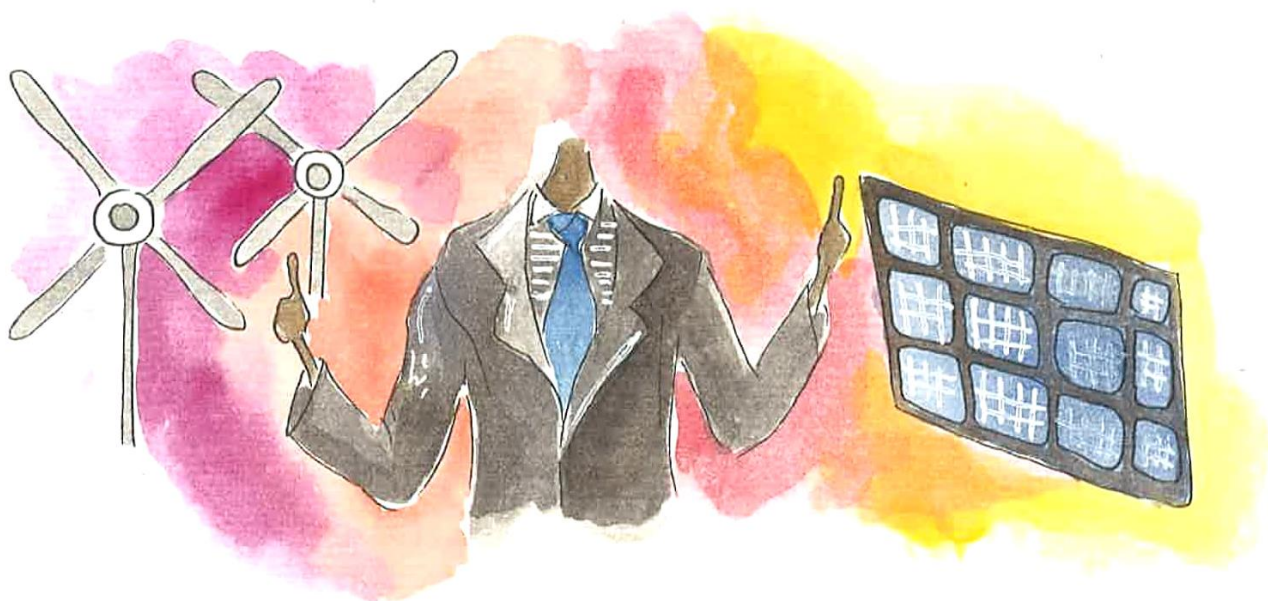
When the helicopter landed, a group of men came out.

"That is the Minister", said Toshao.

The group of men, Minister, and Uncle Tombo stood looking at the Windmill. The Sprouts, Toshao and Grandma Alo approached them.

"Here are the little Sprouts", said Uncle Tombo, "they are the minds behind this work I told you about Minister".

"Congrats", said Minister as he stuck his hand out to the Sprouts, "you did some marvelous work and we are all extremely proud of you".



The Sprouts all shook his hands, smiling.

"We couldn't have done it without the help of everyone", said Asha.

"To ensure that this windmill stays working for a long time", these engineers are going to improve on it", said Minister, "but also, we are going to install solar panels to ensure your village don't need to rely on the generator anymore".

The Sprouts and everyone stood in front the Windmill to get a picture for the newspaper.



**"The Sprouts saved the day, again".**



## About the Authors



**Nayan K Persaud** is a member of GYEN and works with the Ministry of Health, Environmental Health Unit.

"Since a child, watching the National Geographic channel with my dad was one of my favorite things to do. My love for the environment grew because of this. When I am not working to protect the health of our environment with my job, I am advocating for the environment with The Guyana Youth &

Environment Network. I attribute my love for writing

and storytelling to the bedtime stories my mom would read to me, it really helped spark my creative side. Since the 6<sup>th</sup> Grade my friends and I used to write short stories and share them among ourselves. Writing the Sprouts reflects these two passions of mine and I hope the knowledge I gained through reading will be reciprocated through this book".



**Arianna Seeraj** is a member of GYEN and works with the Ministry of Natural Resources.

"My Passion for Climate Change and the environment began at a young age when I first watched Al Gore's highly revered documentary called "An Inconvenient Truth". Seeing Polar Bears struggle to survive in their melting habitat was a stark eye opener to me as a little 6-year-old who loves animals. I am a firm believer in environmental advocacy, but one cannot

advocate for something unless they are well-informed and educated on the matter at hand. This is my inspiration in writing this book, it is crucial that our children be adequately informed about environmental matters that plague our planet daily".



**Dionne Barnwell** is an experienced, Environmental Communications specialist with a demonstrated history of working in the nonprofit sector. She's very passionate about youth development work and the environment. Her passion grew while she was at Richmond Vale Academy in St. Vincent where she learned about climate change and living sustainably.

"I love creating impactful environmental education projects with the primary target audience being children and young adults. I believe that more storybooks like "The Sprouts" series which highlight the impacts of Climate Change on our livelihoods, and effective environmental education projects can and will help to foster the environmental stewardship that we need to adapt to Climate Change.

## About the Illustrator



**Vimaldat Bissessar** is a young Guyanese artist who works predominantly with oil paint to explore the world of contemporary art. His art has evolved from merely being aesthetic to the idea of storytelling.

"I like to create stunning images to hold your interest while allowing your mind to wonder. The use of colour and movement is something truly fascinating, that's why I tend to focus on them to

highlight concepts relating to our environment, mental well-being and individuality. All in the hopes to convey some feeling to my audience."

# Be like the Sprouts

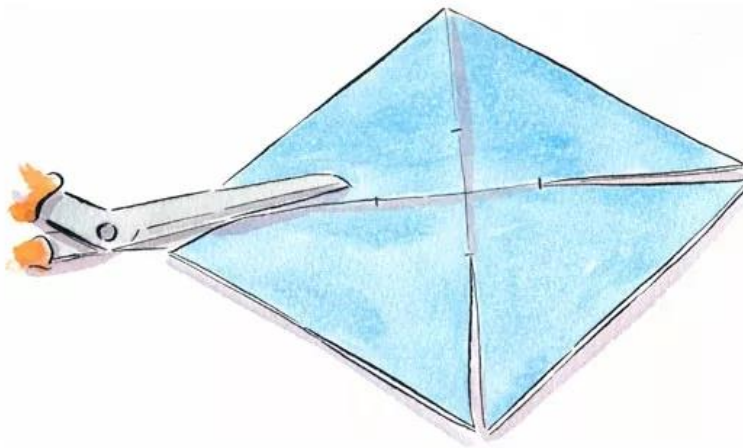
## Make your own Windmill

### Step 1

Cut two 20cm squares of paper, one in each colour. Place one sheet on top of the other. Matching edges all round, fold the paper in half diagonally and open out. Fold diagonally again, this time on the opposite diagonal and open out.

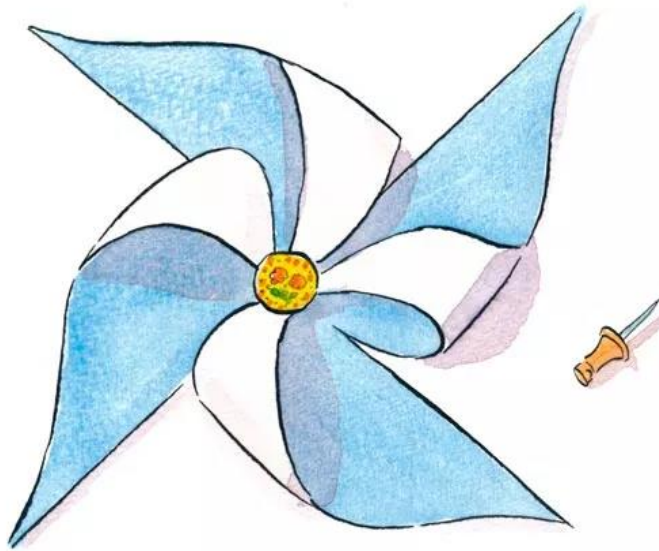
### Step 2

Cut from one corner along the diagonal fold stopping around 3cm from the centre. Repeat along the remaining diagonal folds.



### Step 3

Fold four alternate corner sections down to the centre of the paper, holding each section under your thumb at the centre as you work. Place a sticker centrally on the windmill so that it holds the four blades in position.



### Step 4

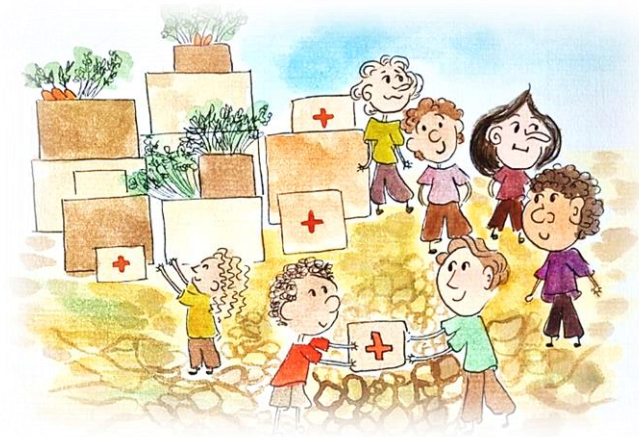
Take a map pin or push pin and push it through the centre of the sticker and out the back of the windmill. Push the map pin into the top of the dowelling stick so that it firmly secures the windmill in place, but still allows the windmill to turn. You may need to tap gently home with a hammer.

A Collaboration between  
The United Nations Guyana  
&

The Ministry of Natural Resources



The Sprouts head on a new adventure. After Lily received some troubling news from her cousin who lives in the savannahs of Guyana, the Sprouts jump into action to help. Here they are met with the effects of that drought has on the environment and human livelihood. With some quick thinking the Sprouts and the villagers show that any problem could be solved when you work together.



Ages 9+