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DESTRUCTIVE FISHING GEARS

By Shawn Peabody

AUDIENCE: COMMUNITY MEMBERS, STUDENTS

3

INDIAN OCEAN COMMUNITY CONSERVATION HANDBOOKS

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This handbook is meant as an educational tool for children and young adults to discuss the issue of destructive fishing gears. Children are a target audience for these messages because they are easier to reach and easier to discourage from destructive activities than those who are already using these methods. Additionally, the elimination of destructive gears will be even more critical in the future as population pressure grows and more people continue to access marine resources.

Young adults, especially men, play an important role in rule enforcement as they are often the ones who report rule breaking to village elders. They play an important support role when rule breakers are confronted by community leaders. Young people tend to be less informed about the negative impacts of destructive fishing gears on the fishery, compared to village elders. It is therefore critical to build their knowledge and encourage a strict attitude against destructive gears.

Destructive gears are incompatible with the sustainable management of marine resources. They deplete juvenile fish populations and destroy future catch in exchange for small, low value catches today. They reduce the ability of marine ecosystems to produce resources and often their effects are irreversible. For the southwest of Madagascar, the successful elimination of poison fishing and beach seine nets has the potential to radically improve the sustainability of the fishery while promoting habitat recovery.

By taking the point-of-view of a family of fish, this handbook aims to show the impact of destructive fishing on marine habitats, and consequently, the marine animals that depend on those habitats. While many community members already understand, in general terms, that beach seining and poison fishing are bad for the fishery, they are often not clear on all of the specific ways that the use of destructive gears can impact upon their everyday life.

The rabbitfish (*Amboramasike*) was chosen as the main character in this story because of their importance to fishers throughout the region as a source of income and food.

Other handbooks explain alternative livelihoods to using destructive gears, provide suggestions on how to strengthen community respect and enforcement of local laws, including those banning destructive gears, and describe why destructive gears are unsustainable (see handbooks 1, 4, and 5). This handbook is meant to reinforce the message that destructive gears are unsustainable and that eliminating them will bring direct tangible benefits to the fishery and fishing communities. It is hoped that it will encourage support for village law (*Dina* in Madagascar) enforcement on destructive fishers by a wider spectrum of the community.

How to use this handbook

Teachers can use this handbook to stimulate critical discussions about the effect humans have on the marine environment and the actions everyone can take to protect the sustainability of fisheries. Additionally, teachers can use the associated comic to encourage students to develop their own comics about the marine environment from the perspective of a marine animal. This handbook can easily be converted into a puppet show or community or school theatre production for further reinforcement. Please see the appendix of this handbook for more teacher support materials related to this comic.

Women's associations, youth groups, and church groups can also be encouraged to adapt the comic to community theatre. The characters from the comic can be incorporated into handicrafts or used to decorate association or community spaces.

More informally, NGO field workers can carry this comic with them into the field to read to the crowds of kids that gather before and after community meetings. Very often adults will join in these readings and discussions after the reading are beneficial to everyone.

Resources for teachers

Reading comprehension check

1. Who are the main characters in this story?
2. Where were the baby fish born?
3. Where does Mama fish go to eat?
3. What did Mama fish see when she left her home to find pink algae?
4. What effect did the villagers have on the marine environment?
5. Why did the villagers decide to stop destructive fishing?
6. What happened when they stopped beach seining and poison fishing?
7. What do you think about poison fishing and beach seining?
8. Do you think that people should use these destructive fishing methods? Why or why not?

Mathematics activity

1. A boy named Haja is given a chicken on January 1st. The chicken lays two eggs every week. How many eggs will he have on January 29th?
2. If the boy allows the chicken to raise 1 chick for every 10 eggs it lays, how many chickens will he have after one year?
3. If the boy allows the chicken to raise 1 chick for every 2 eggs it lays, how many chickens will he have after one year?
4. If a mama fish lays 1,000 eggs in one year and 50% of them don't hatch because they are eaten by other fish, how many are left?
5. If 50% of those that hatch are eaten by other fish, how many are left?
6. If 50% of those fish left are caught by beach seiners, how many are left?
7. If 50% of those left are killed by poison fishing, how many are left?
8. If 50% of those left are caught as adults by fishers using large mesh nets, how many are left? How many are caught by the legal fishers?
9. If those that are left each lay 1,000 eggs, how many eggs will there be?
10. If there weren't any beach seiners or poison fishers, how many more fish would the legal fishers have caught?
11. If the poison killed 90% of the fish, instead of 50% how many fish would the legal fishers have caught?

BACK FROM THE REEF

INDIAN OCEAN COMMUNITY CONSERVATION HANDBOOK 3

DESTRUCTIVE FISHING GEARS

BY SHAWN PEABODY

AUDIENCE: STUDENTS, COMMUNITY MEMBERS

TRANSLATOR: MIRANA RAZAFINDRAMBOA ARTWORK: NADY RATSIMBAZAFY

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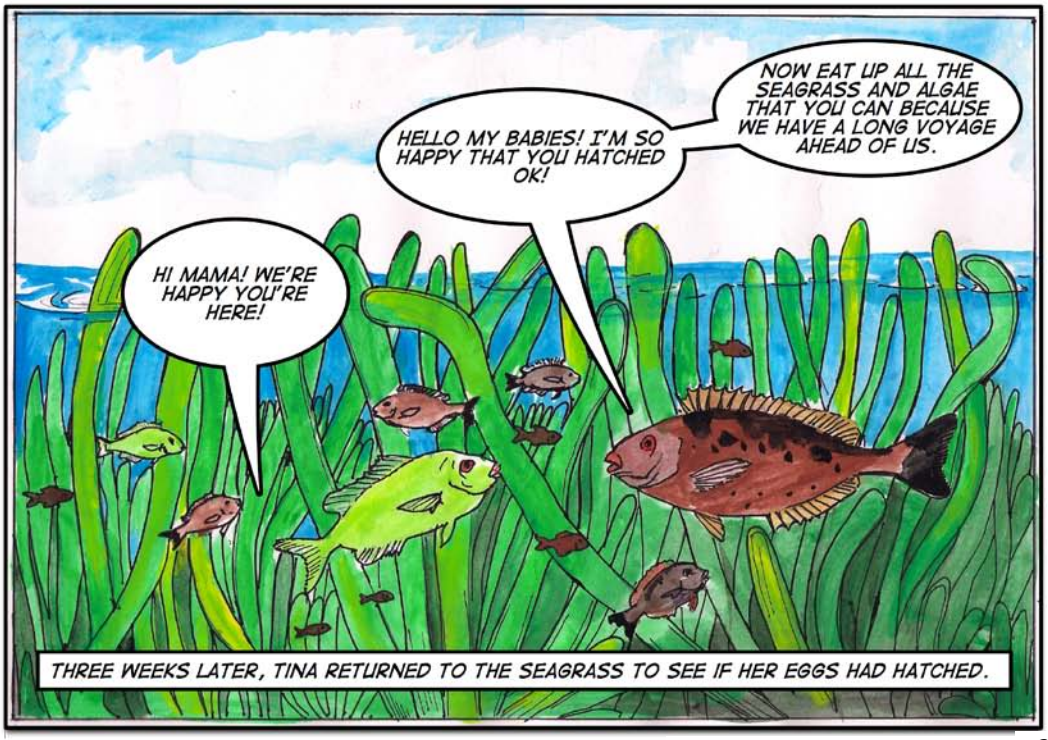
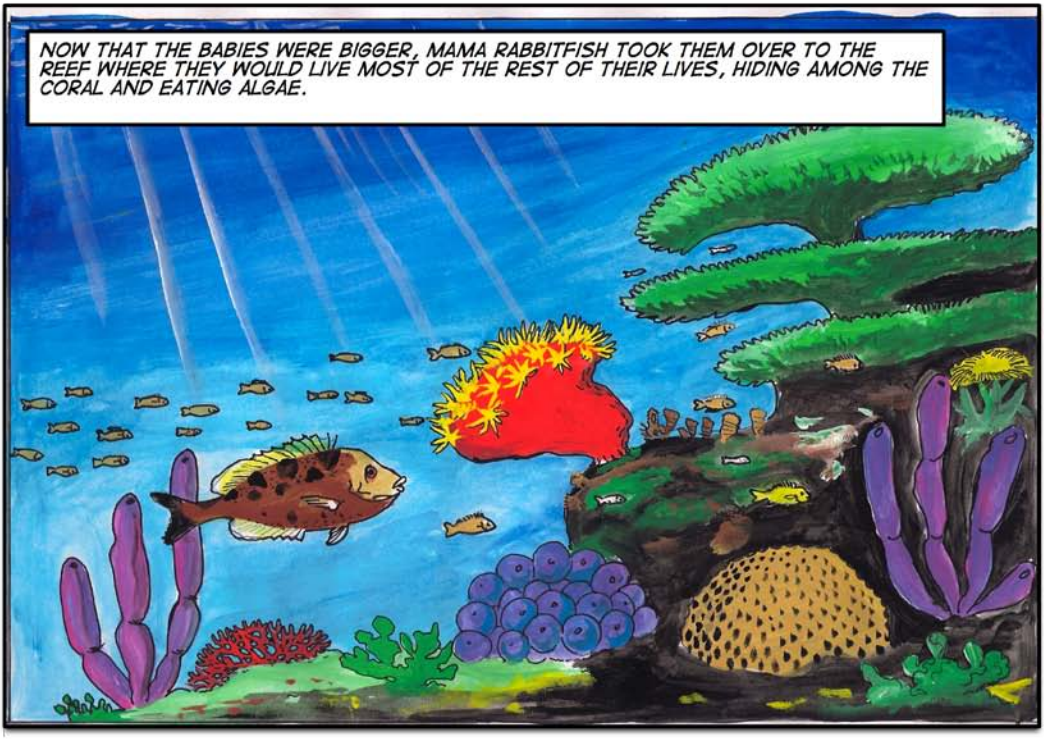
VELONDRIAKE

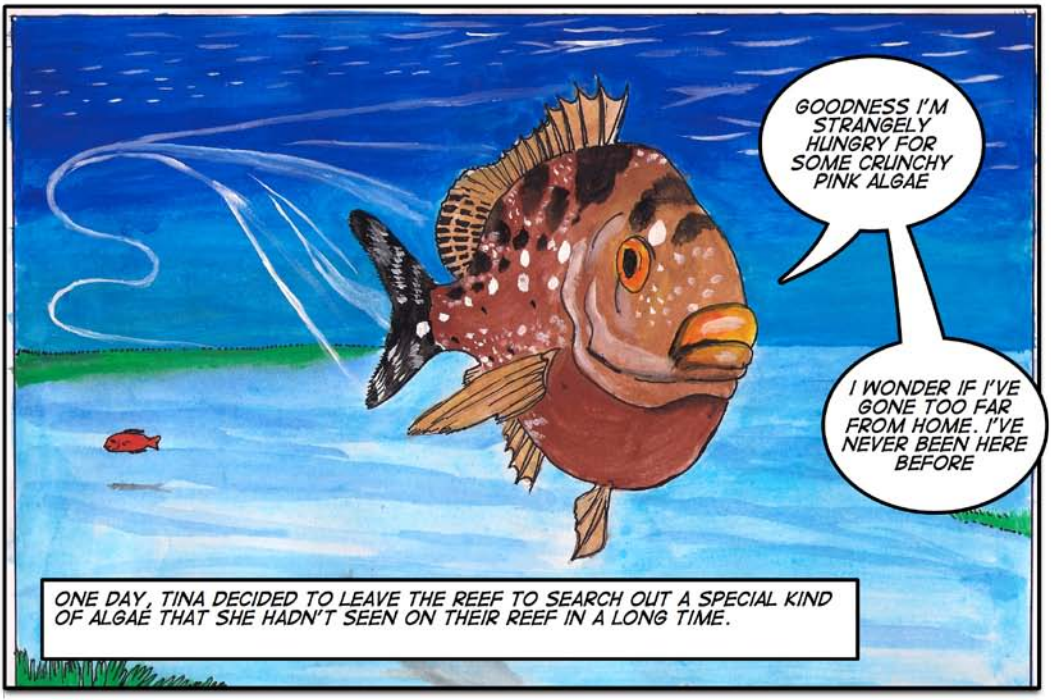

HI GUYS! I'M ON MY WAY TO THE SEAGRASS TO LAY MY EGGS FOR THE YEAR. ANYBODY ELSE WANT TO COME?
NO THANKS, I'M NOT READY TO RELEASE MY EGGS FOR ANOTHER WEEK.
ONE JUNE DAY, TINA, THE RABBITFISH, LEFT THE CORAL REEF WHERE SHE LIVES TO LAY HER EGGS IN THE SEAGRASS.

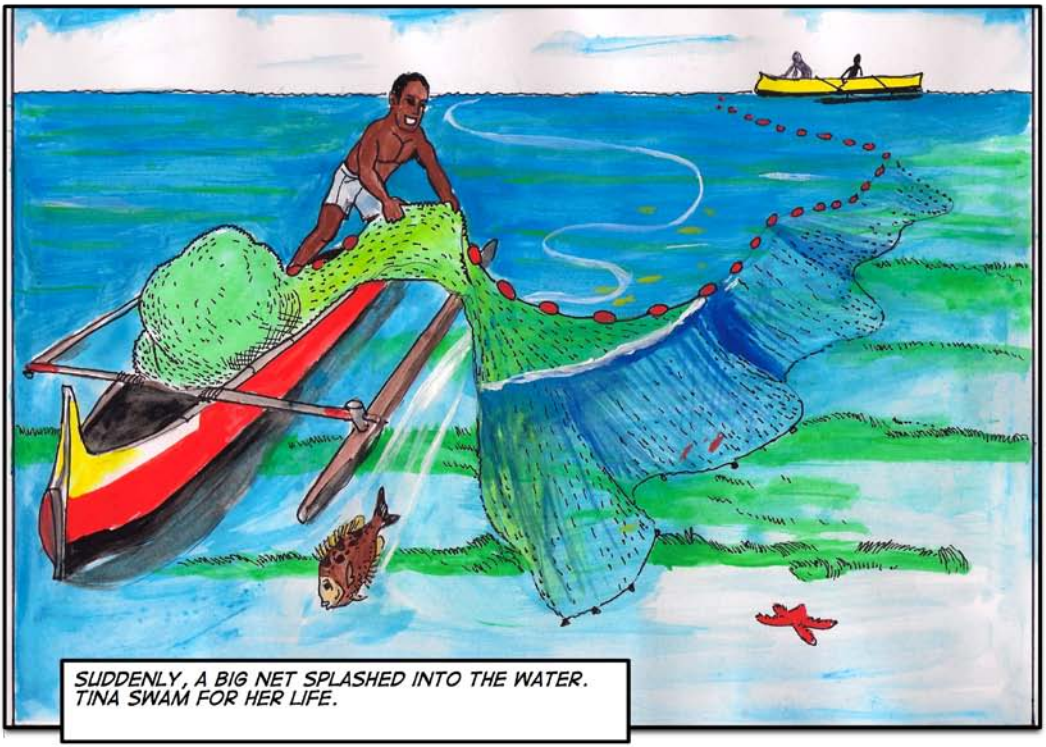

GOOD LUCK MY LITTLE EGGS. MAY YOU BE FERTILISED AND HATCH!

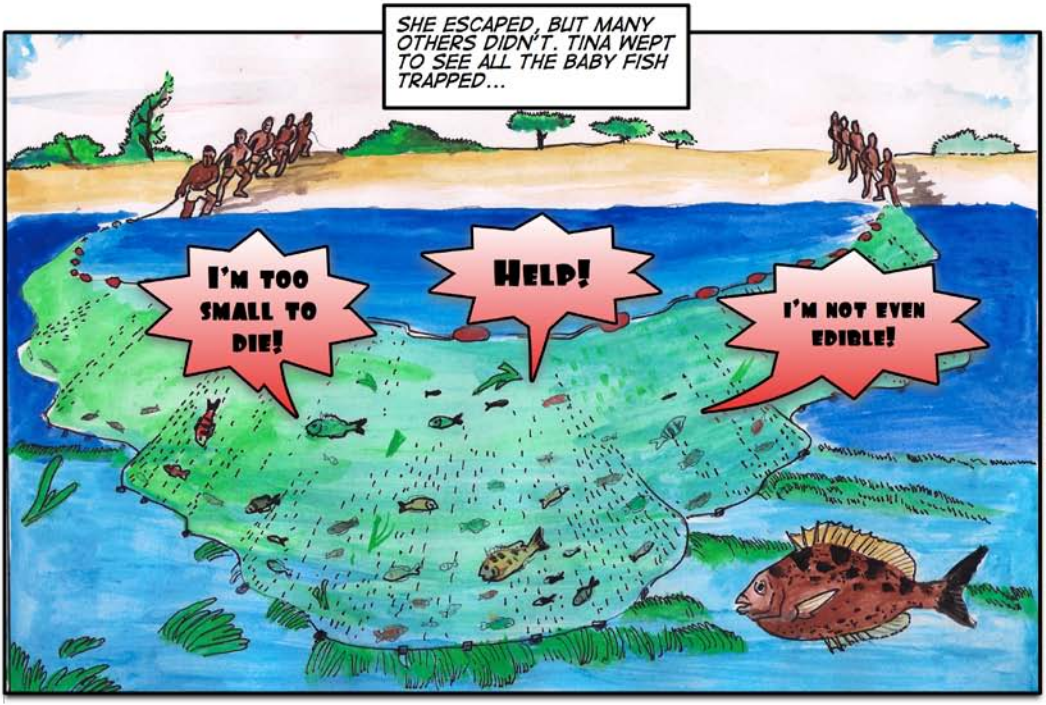

AFTER TINA LAYED HER EGGS, SHE RETURNED TO THE CORAL REEFS WHERE SHE NORMALLY LIVES, EATING THE ALGAE THAT GROWS AROUND THE REEF.

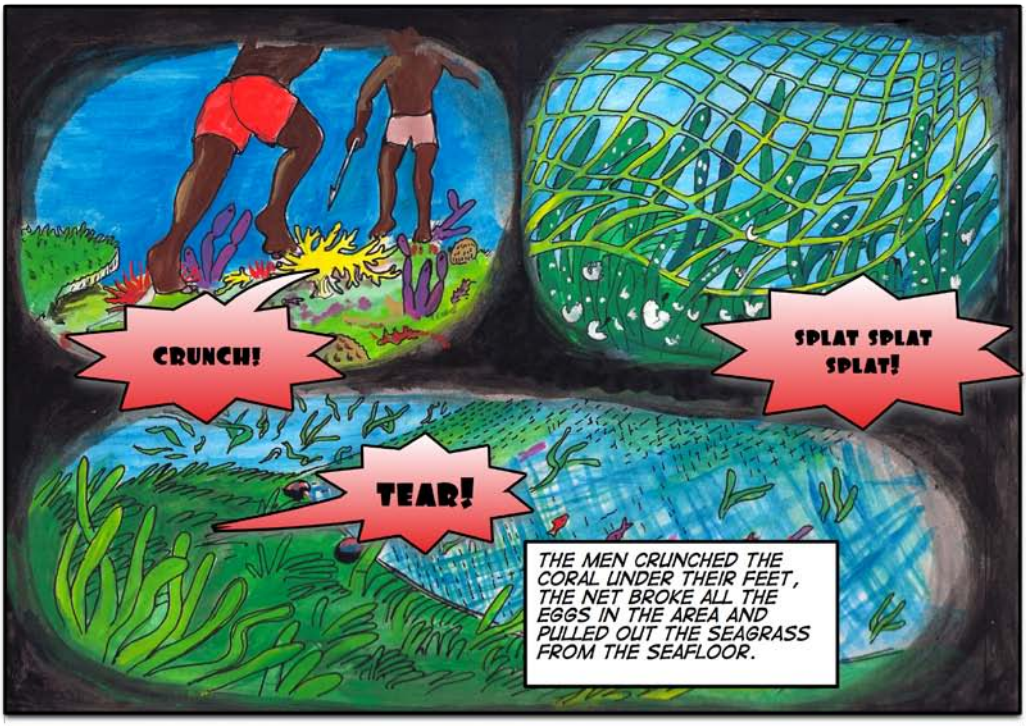

HI MAMA! WE'RE HAPPY YOU'RE HERE!
HELLO MY BABIES! I'M SO HAPPY THAT YOU HATCHED OK!
NOW EAT UP ALL THE SEAGRASS AND ALGAE THAT YOU CAN BECAUSE WE HAVE A LONG VOYAGE AHEAD OF US.
THREE WEEKS LATER, TINA RETURNED TO THE SEAGRASS TO SEE IF HER EGGS HAD HATCHED.

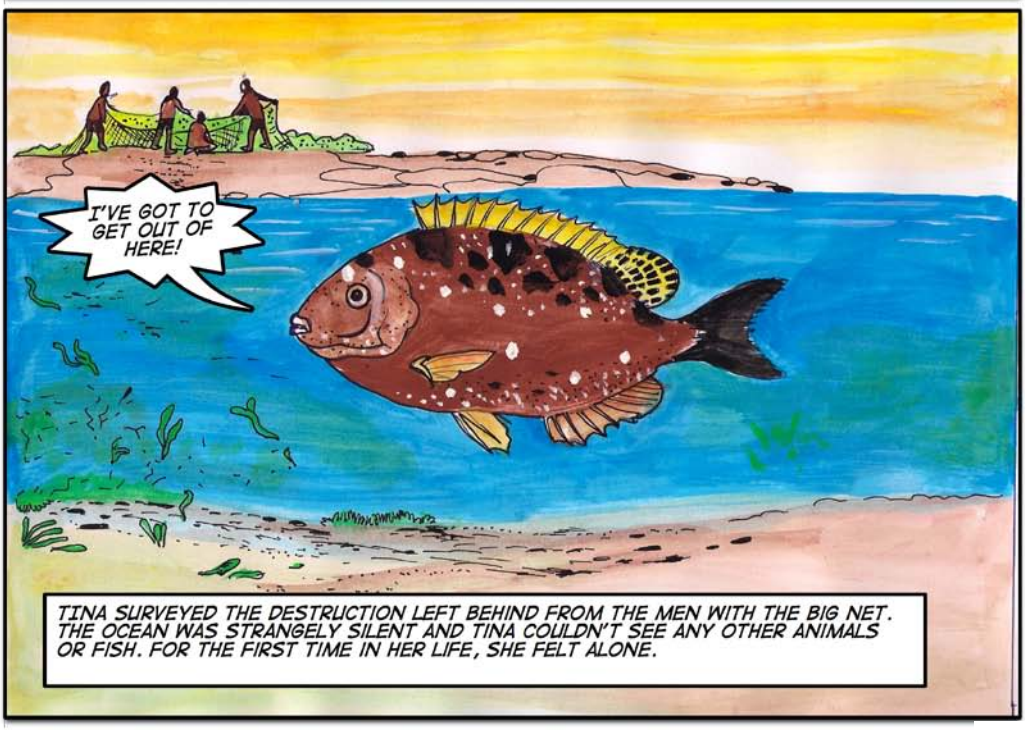

NOW THAT THE BABIES WERE BIGGER, MAMA RABBITFISH TOOK THEM OVER TO THE REEF WHERE THEY WOULD LIVE MOST OF THE REST OF THEIR LIVES, HIDING AMONG THE CORAL AND EATING ALGAE.


GOODNESS I'M STRANGELY HUNGRY FOR SOME CRUNCHY PINK ALGAE
I WONDER IF I'VE GONE TOO FAR FROM HOME. I'VE NEVER BEEN HERE BEFORE
ONE DAY, TINA DECIDED TO LEAVE THE REEF TO SEARCH OUT A SPECIAL KIND OF ALGAE THAT SHE HADN'T SEEN ON THEIR REEF IN A LONG TIME.


SUDDENLY, A BIG NET SPLASHED INTO THE WATER. TINA SWAM FOR HER LIFE.

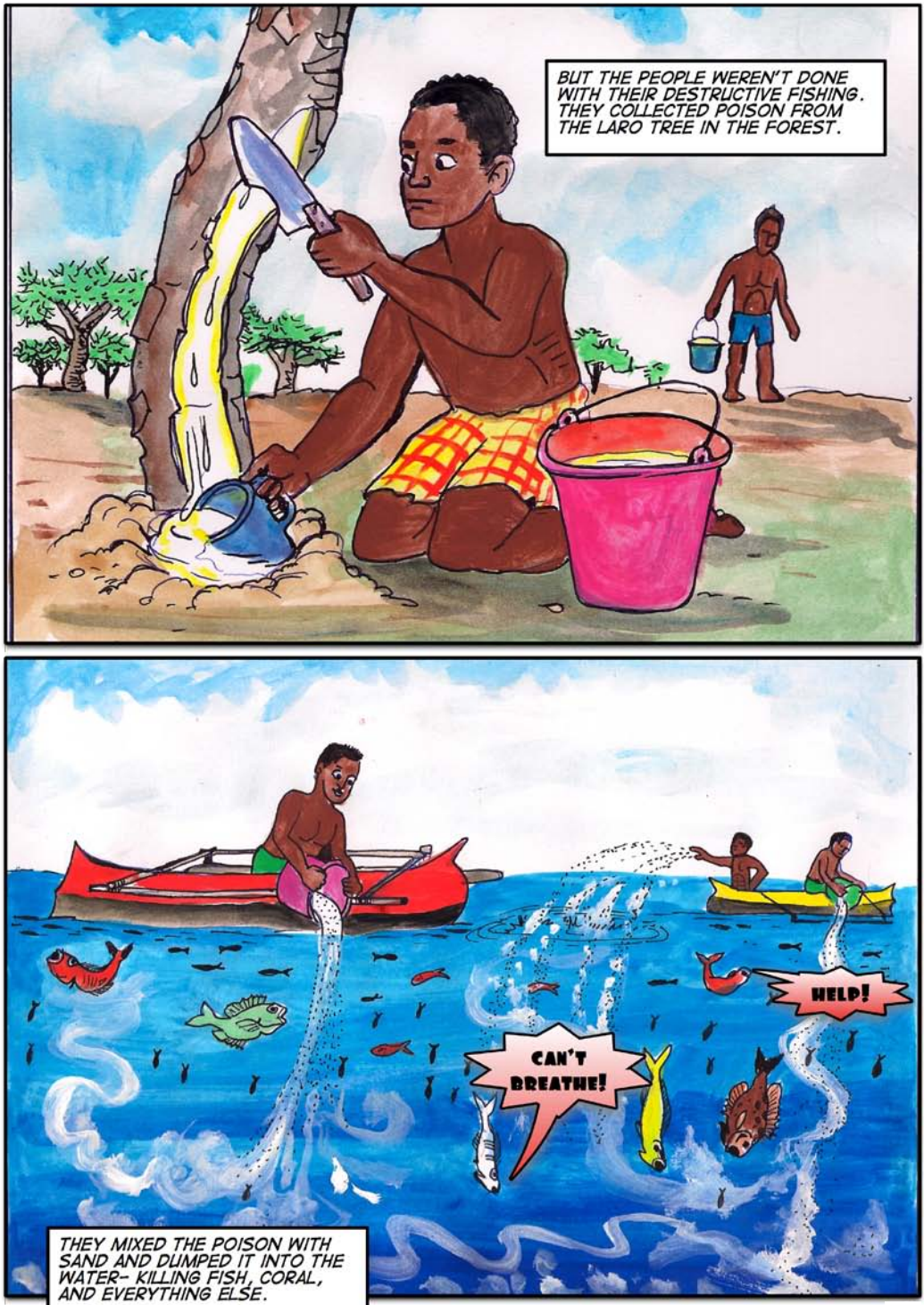

SHE ESCAPED, BUT MANY OTHERS DIDN'T. TINA WEPT TO SEE ALL THE BABY FISH TRAPPED...
I'M TOO SMALL TO DIE!
HELP!
I'M NOT EVEN EDIBLE!

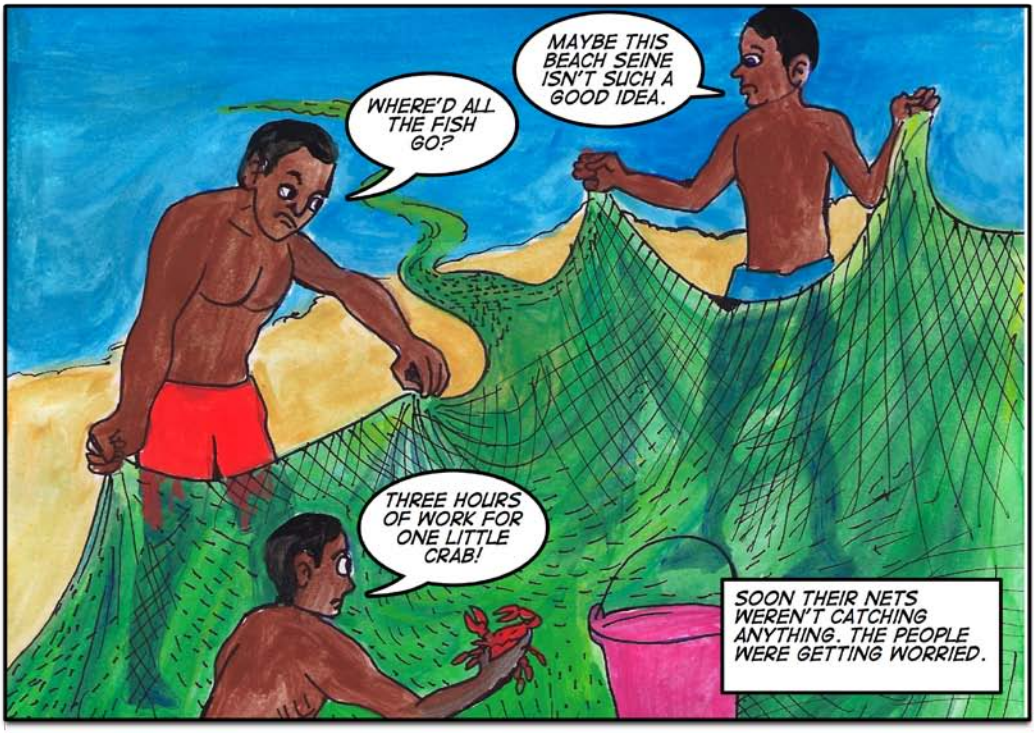

CRUNCH!
SPLAT SPLAT SPLAT!
TEAR!
THE MEN CRUNCHED THE CORAL UNDER THEIR FEET, THE NET BROKE ALL THE EGGS IN THE AREA AND PULLED OUT THE SEAGRASS FROM THE SEAFLOOR.


I'VE GOT TO GET OUT OF HERE!
TINA SURVEYED THE DESTRUCTION LEFT BEHIND FROM THE MEN WITH THE BIG NET. THE OCEAN WAS STRANGELY SILENT AND TINA COULDN'T SEE ANY OTHER ANIMALS OR FISH. FOR THE FIRST TIME IN HER LIFE, SHE FELT ALONE.

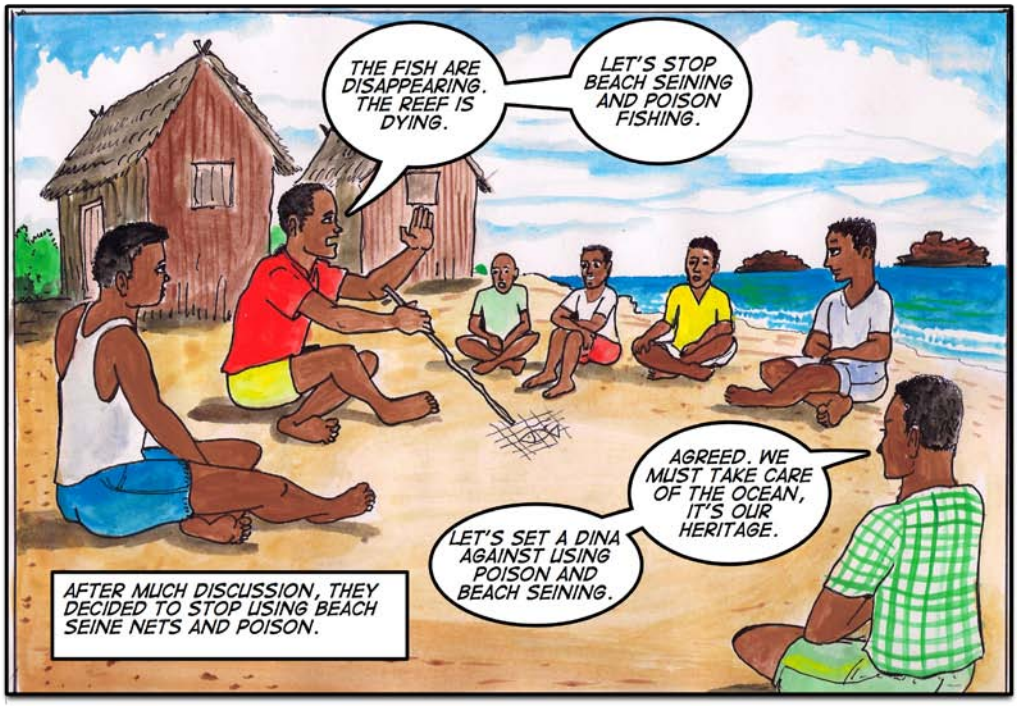

THESE LITTLE THINGS AREN'T MUCH GOOD FOR EATING, BUT AT LEAST WE CAN SELL THEM FOR SOMETHING
HAPPILY, THE PEOPLE SORTED THEIR CATCH OF MOSTLY BABY FISH.

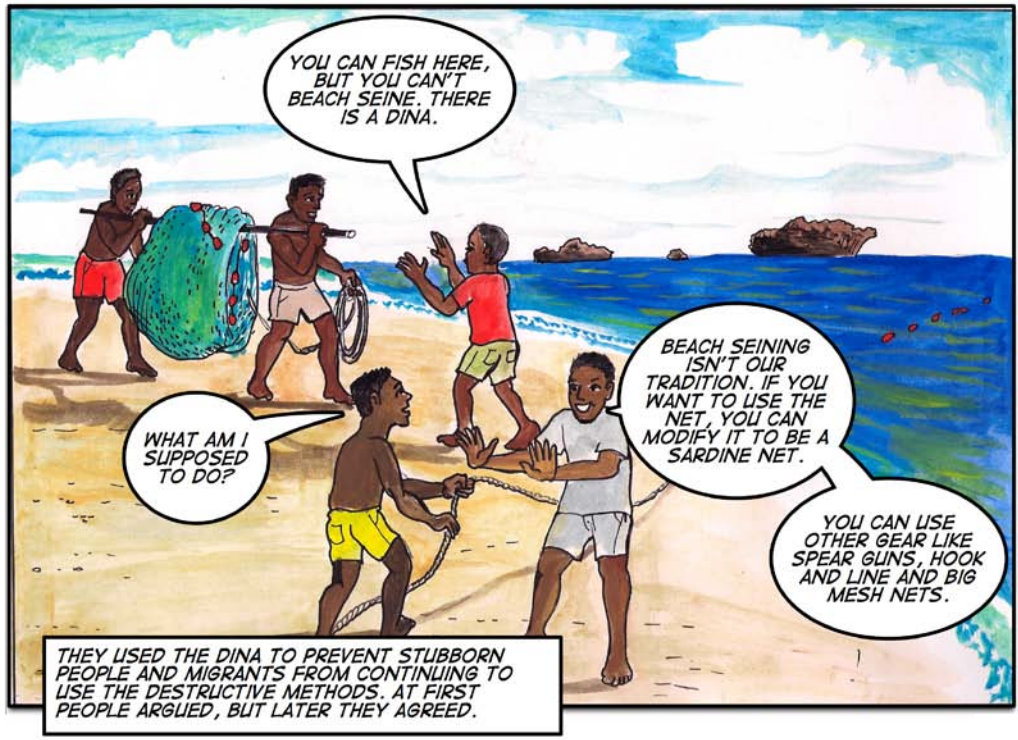

...I WAS SO SCARED THAT I SWAM AWAY AS FAST AS I COULD!
EWW! WHAT IS THAT TERRIBLE SMELL!
TINA WENT HOME AND TOLD HER FRIENDS WHAT SHE'D SEEN. THEY WEREN'T VERY SURPRISED BECAUSE THEY'D HEARD THE SAME STORY FROM THE NEEDLEFISH AND THE SEA TURTLE. EVERYONE WAS NERVOUS.

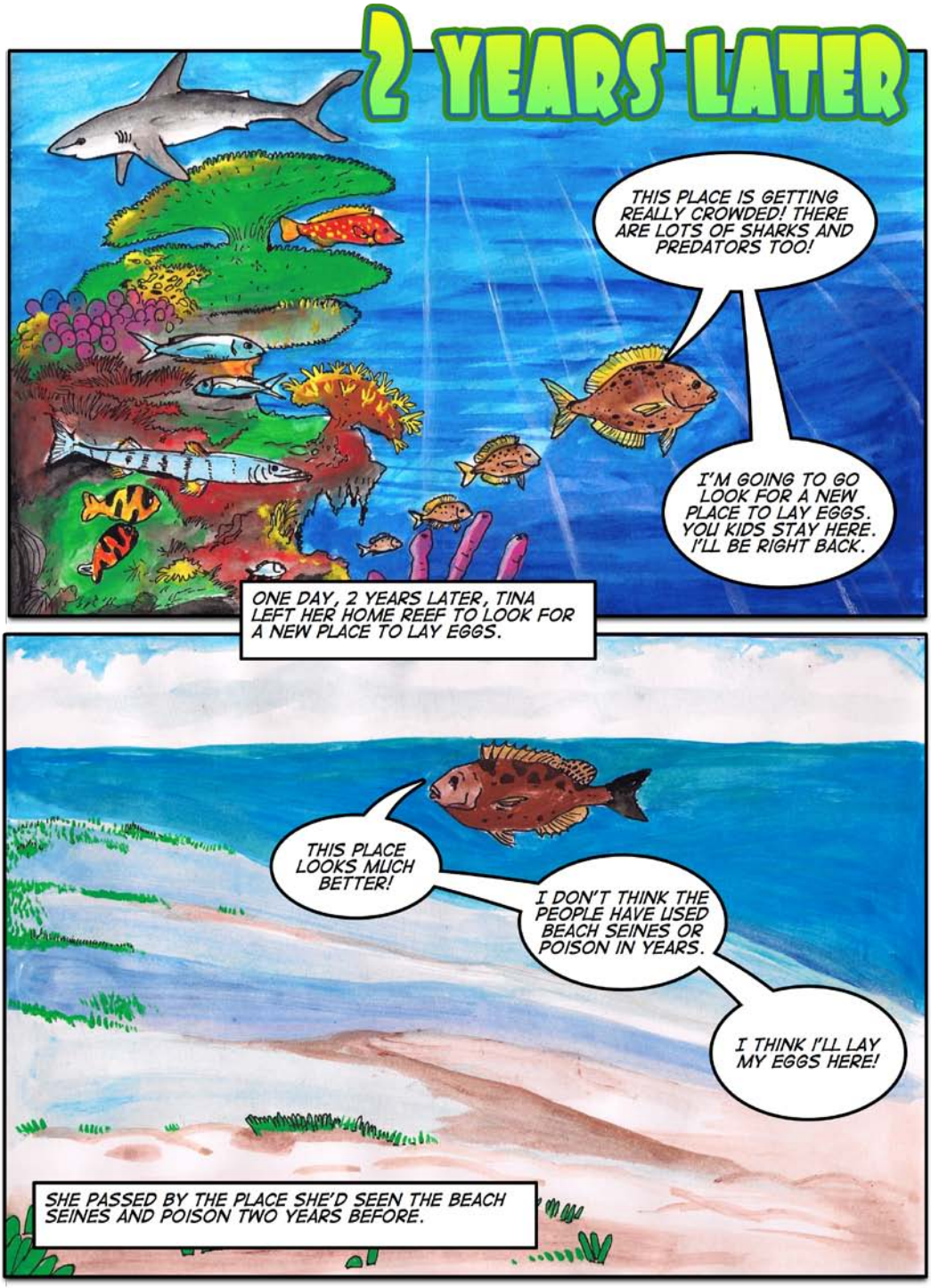

BUT THE PEOPLE WEREN'T DONE WITH THEIR DESTRUCTIVE FISHING. THEY COLLECTED POISON FROM THE LARO TREE IN THE FOREST.
HELP!
CAN'T BREATHE!
THEY MIXED THE POISON WITH SAND AND DUMPED IT INTO THE WATER- KILLING FISH, CORAL, AND EVERYTHING ELSE.


MAYBE THIS BEACH SEINE ISN'T SUCH A GOOD IDEA.
WHERE'D ALL THE FISH GO?
THREE HOURS OF WORK FOR ONE LITTLE CRAB!
SOON THEIR NETS WEREN'T CATCHING ANYTHING. THE PEOPLE WERE GETTING WORRIED.


I'M HUNGRY.
WHERE ARE ALL THE FISH? THIS USED TO WORK REALLY WELL.
MAYBE THIS POISON FISHING ISN'T SUCH A GOOD IDEA.
NEXT, EVEN THE POISON FISHING WASN'T CATCHING MANY FISH. THEY STARTED TO REALISE THAT THERE WAS A BIG PROBLEM.


THE FISH ARE DISAPPEARING. THE REEF IS DYING.
LET'S STOP BEACH SEINING AND POISON FISHING.
AGREED. WE MUST TAKE CARE OF THE OCEAN, IT'S OUR HERITAGE.
LET'S SET A DINA AGAINST USING POISON AND BEACH SEINING.
AFTER MUCH DISCUSSION, THEY DECIDED TO STOP USING BEACH SEINE NETS AND POISON.


YOU CAN FISH HERE, BUT YOU CAN'T BEACH SEINE. THERE IS A DINA.
WHAT AM I SUPPOSED TO DO?
BEACH SEINING ISN'T OUR TRADITION. IF YOU WANT TO USE THE NET, YOU CAN MODIFY IT TO BE A SARDINE NET.
YOU CAN USE OTHER GEAR LIKE SPEAR GUNS, HOOK AND LINE AND BIG MESH NETS.
THEY USED THE DINA TO PREVENT STUBBORN PEOPLE AND MIGRANTS FROM CONTINUING TO USE THE DESTRUCTIVE METHODS. AT FIRST PEOPLE ARGUED, BUT LATER THEY AGREED.

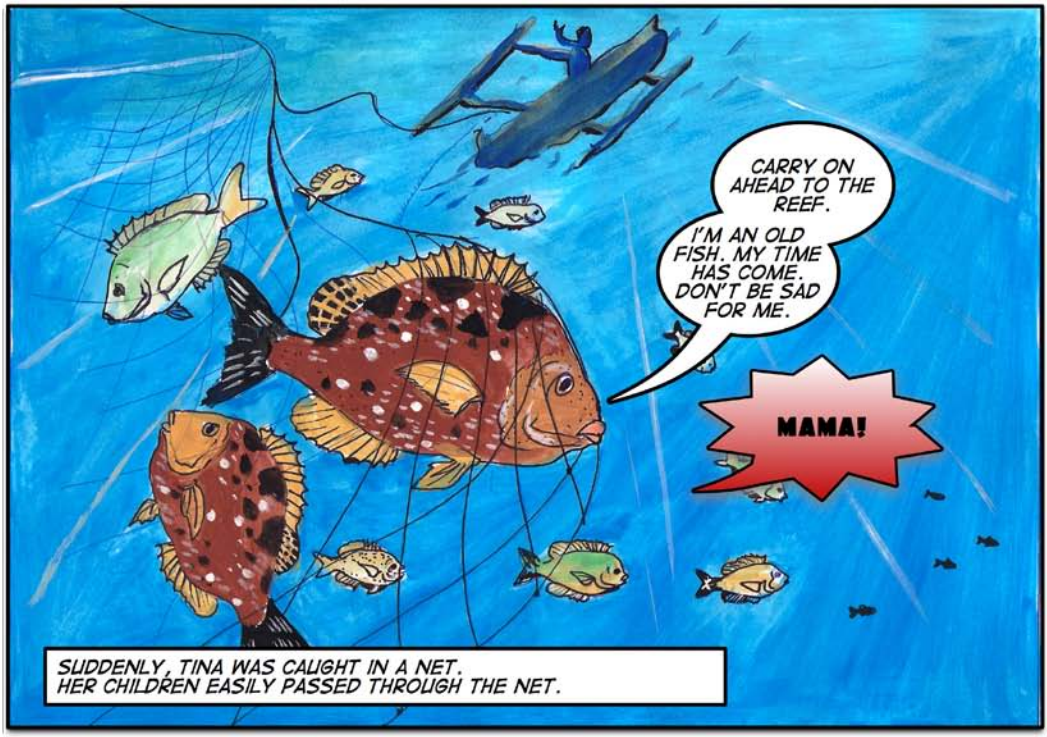

2 YEARS LATER
THIS PLACE IS GETTING REALLY CROWDED! THERE ARE LOTS OF SHARKS AND PREDATORS TOO!
I'M GOING TO GO LOOK FOR A NEW PLACE TO LAY EGGS. YOU KIDS STAY HERE. I'LL BE RIGHT BACK.
ONE DAY, 2 YEARS LATER, TINA LEFT HER HOME REEF TO LOOK FOR A NEW PLACE TO LAY EGGS.
THIS PLACE LOOKS MUCH BETTER!
I DON'T THINK THE PEOPLE HAVE USED BEACH SEINES OR POISON IN YEARS.
I THINK I'LL LAY MY EGGS HERE!
SHE PASSED BY THE PLACE SHE'D SEEN THE BEACH SEINES AND POISON TWO YEARS BEFORE.


I'M SCARED THAT THE PEOPLE WILL COME BACK AND POISON US.
IT DOESN'T SMELL OF POISON AT ALL ANYMORE. I THINK THEY HAVE CHANGED THEIR WAYS.
I HOPE THEY DON'T USE BEACH SEINES ANYMORE. I'M TOO SMALL TO BE EATEN!
TINA AND SOME OF HER FRIENDS DECIDED TO LAY THEIR EGGS IN THE RECOVERING AREA.

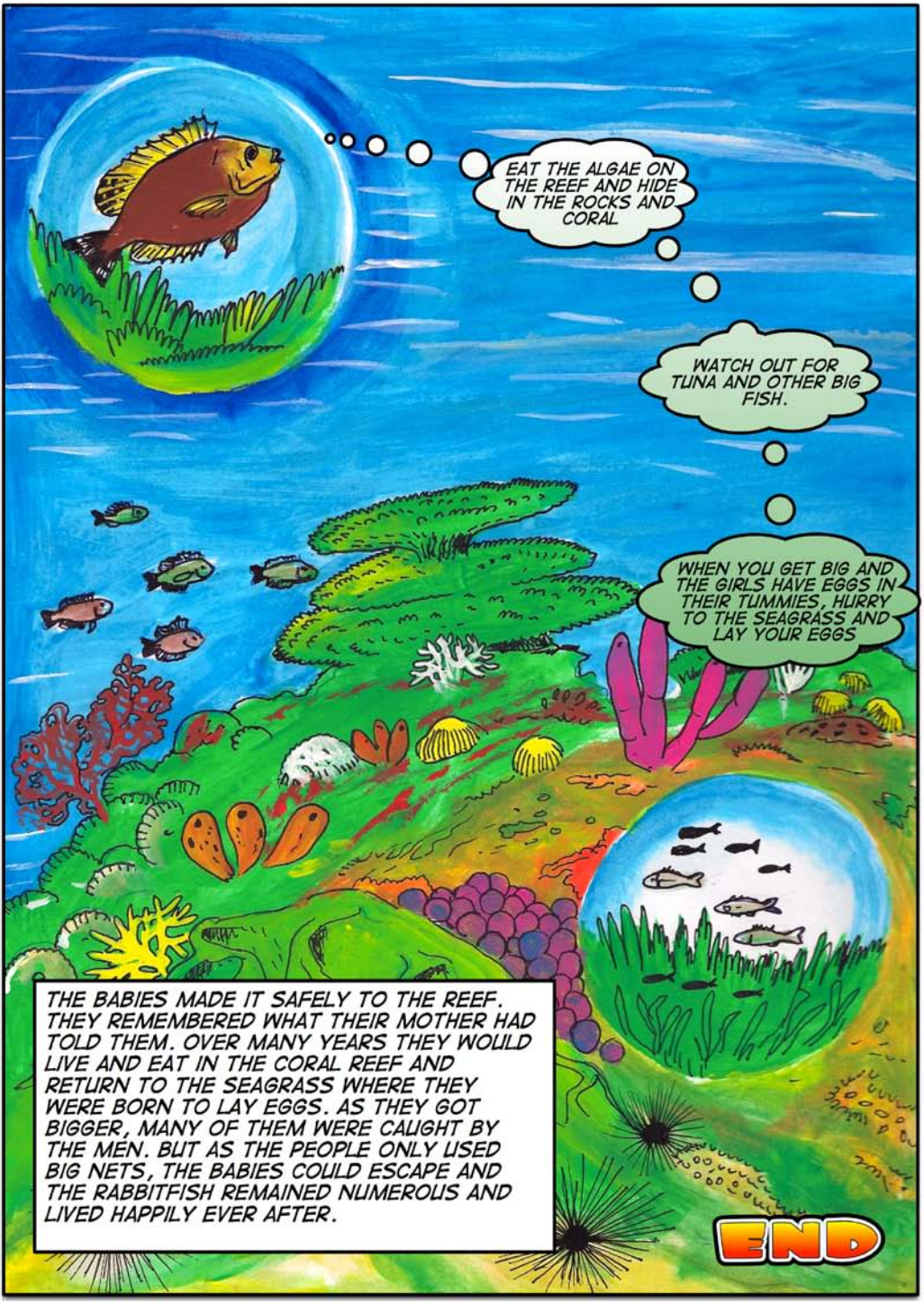

I TOLD YOU GUYS THIS PLACE WAS OK
ALTHOUGH THE PLACE WAS STILL DAMAGED, IT WAS A GOOD PLACE TO LAY EGGS. THEY DIDN'T SEE ANY BEACH SEINES OR SMELL ANY POISON.


AFTER A FEW WEEKS, THE EGGS HATCHED AND TINA'S BABIES PLAYED AND ATE IN THE SEAGRASS, FREE OF ANY WORRIES OTHER THAN THE OCCASIONAL TUNA.


WHEN TINA'S BABIES STARTED TO GET BIG, SHE LED THEM FROM THE SEAGRASS TO THE CORAL REEFS WHERE THEY'D LIVE OUT THE REST OF THEIR LIVES.
TODAY, CHILDREN, IS AN IMPORTANT DAY.
TODAY WE MOVE TO THE REEF TO EAT THE PLENTIFUL ALGAE THAT GROWS THERE.
ARE YOU SURE WE ARE GOING TO LIKE IT THERE?


CARRY ON AHEAD TO THE REEF.
I'M AN OLD FISH. MY TIME HAS COME. DON'T BE SAD FOR ME.
MAMA!
SUDDENLY, TINA WAS CAUGHT IN A NET.
HER CHILDREN EASILY PASSED THROUGH THE NET.


REMEMBER MY INSTRUCTIONS AND YOU'LL BE FINE!
HURRY TO THE REEF, YOU AREN'T SAFE HERE.


EAT THE ALGAE ON THE REEF AND HIDE IN THE ROCKS AND CORAL
WATCH OUT FOR TUNA AND OTHER BIG FISH.
WHEN YOU GET BIG AND THE GIRLS HAVE EGGS IN THEIR TUMMIES, HURRY TO THE SEAGRASS AND LAY YOUR EGGS
THE BABIES MADE IT SAFELY TO THE REEF. THEY REMEMBERED WHAT THEIR MOTHER HAD TOLD THEM. OVER MANY YEARS THEY WOULD LIVE AND EAT IN THE CORAL REEF AND RETURN TO THE SEAGRASS WHERE THEY WERE BORN TO LAY EGGS. AS THEY GOT BIGGER, MANY OF THEM WERE CAUGHT BY THE MEN. BUT AS THE PEOPLE ONLY USED BIG NETS, THE BABIES COULD ESCAPE AND THE RABBITFISH REMAINED NUMEROUS AND LIVED HAPPILY EVER AFTER.
END

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