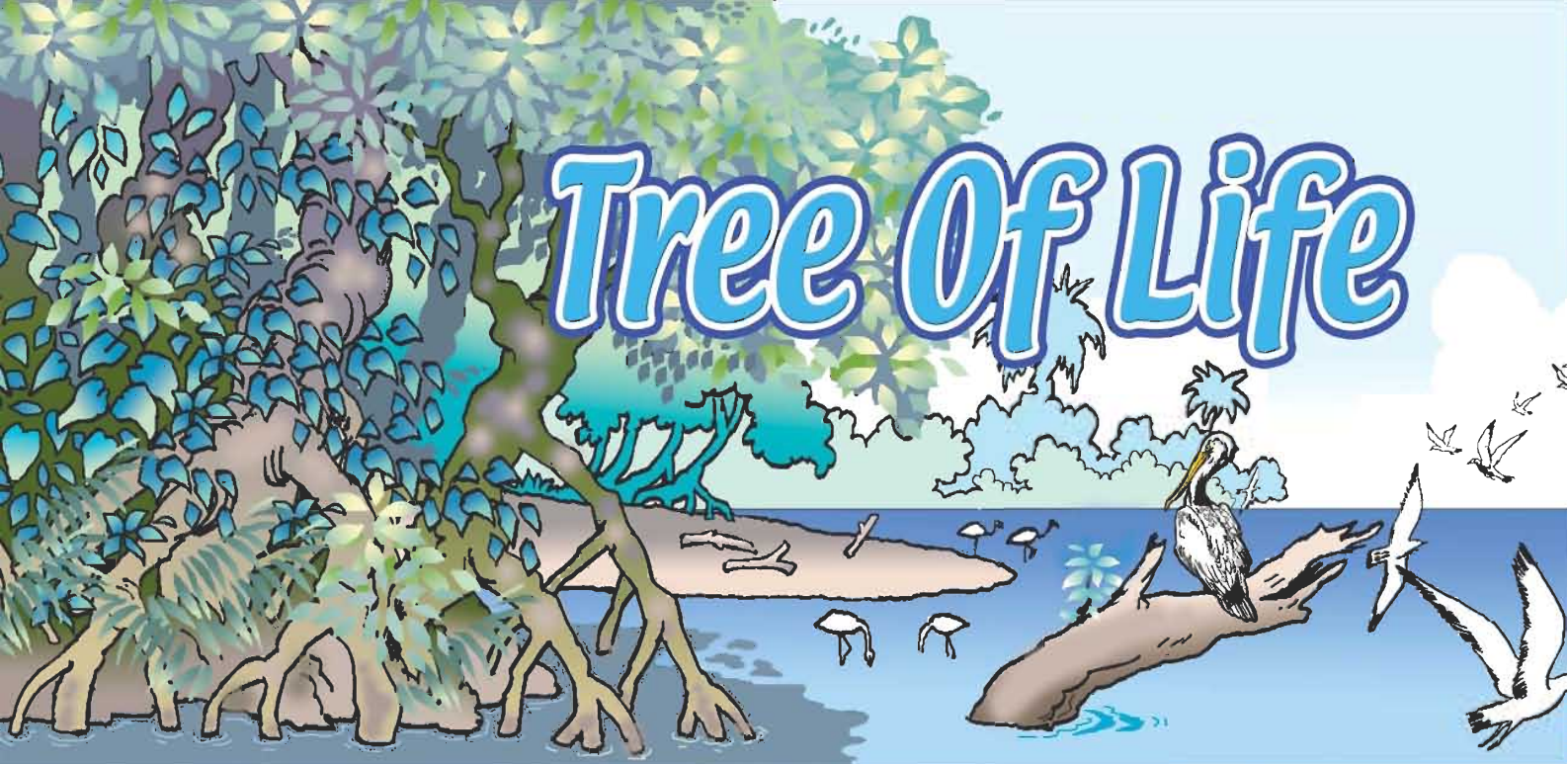


Tree Of Life



TREE OF LIFE



The PNG Coastal Fisheries Management and Development Project is executed by the PNG National Fisheries Authority with loan funding support from the Asian Development Bank. The project promotes and encourages the sustainable use of living marine resources in PNG waters.

This booklet is part of a series of information materials produced by the project to raise awareness about various marine and fisheries related issues. For further information about the project please contact the Public Relations Officer at the National Fisheries Authority 3090444.


Written by: Mary-Clare Ame

Illustrated by: Biliso Osake

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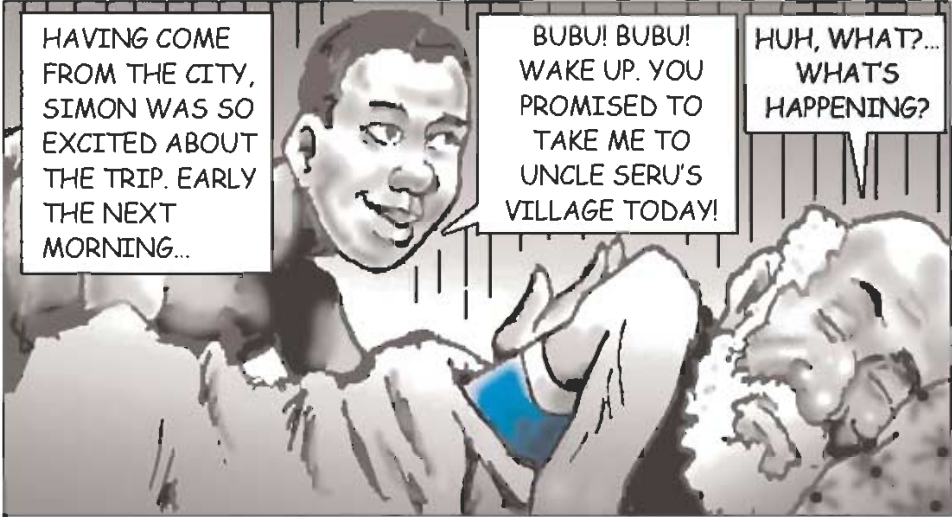
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The author thanks Kim Des Rochers and Garry Presion for their advice and input and acknowledges the other Coastal Fisheries Management and Development Project members for their assistance.



SIMON IS A HIGH SCHOOL STUDENT ON HOLIDAY IN HIS GRANDFATHER TOBI'S COASTAL VILLAGE.


BUBU TOBI HAD PROMISED TO TAKE SIMON WITH HIM TO UNCLE SERU'S VILLAGE TO HELP BUILD SERU'S HOUSE THAT HAD BEEN WASHED AWAY BY THE FLOODS A WEEK AGO.



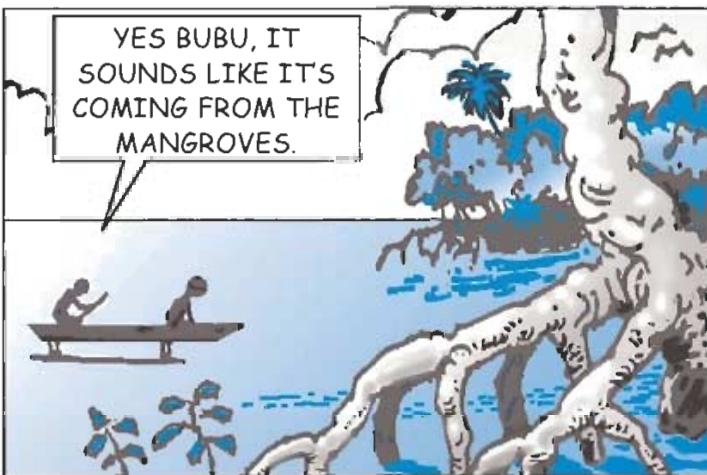
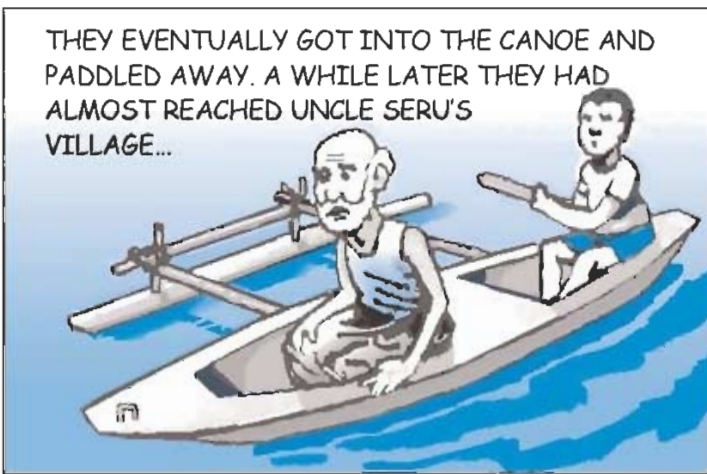
HAVING COME FROM THE CITY, SIMON WAS SO EXCITED ABOUT THE TRIP. EARLY THE NEXT MORNING...

BUBU! BUBU! WAKE UP. YOU PROMISED TO TAKE ME TO UNCLE SERU'S VILLAGE TODAY!

HUH, WHAT?...
WHAT'S HAPPENING?



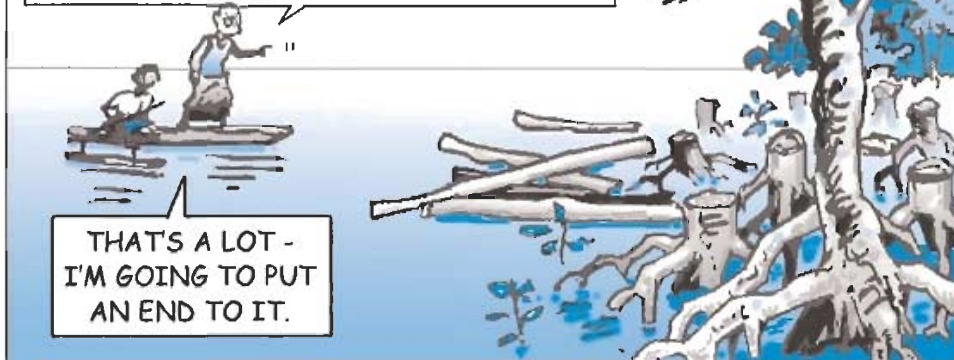
C'MON BUBU, WE'RE SUPPOSED TO HELP UNCLE SERU, PLEASE GET UP!



LET'S PADDLE UP THAT WAY
AND SEE WHAT'S HAPPENING.
OH NO! LOOK OVER THERE!



THOSE IDIOTS ARE CHOPPING DOWN
THE MANGROVE TREES! LOOK! SEE HOW
MANY THEY'VE ALREADY CHOPPED DOWN!



THAT'S A LOT -
I'M GOING TO PUT
AN END TO IT.

OH! COME ON BUBU, THEY'RE PROBABLY
TRYING TO BUILD HOUSES OR SOMETHING.
LET'S MIND OUR OWN BUSINESS



TOBI YELLS
ANGRILY AT
THE MAN
WHO IS
BUSY
CHOPPING
DOWN THE
TREE.

HEY YOU! STOP
DESTROYING THE
MANGROVES! WHAT
IN THE WORLD DO
YOU THINK YOU'RE
DOING! STOP IT
RIGHT NOW!



HEY, WHAT'S
WRONG WITH
YOU? MIND
YOUR OWN
BUSINESS!

MANGROVES ARE
MY BUSINESS! I'LL
REPORT YOU TO THE
VILLAGE COMMITTEE
FOR DESTROYING
THE TREES.

COME ON BUBU, IT
REALLY IS NONE OF OUR
BUSINESS. LET'S GO. WHY
ARE YOU SO ANGRY?

IT'S JUST SOME
OLD TREES. LET'S
GO ON OUR WAY.

GRANDSON, THEY'RE
IMPORTANT TREES
THAT PLAY A VERY
IMPORTANT ROLE IN
THE LIVES OF THE
PEOPLE, AND THE SEA
ANIMALS THAT WE
DEPEND ON.



SUCH AS?

FOR STARTERS
THEY PROVIDE FOOD
FOR US.



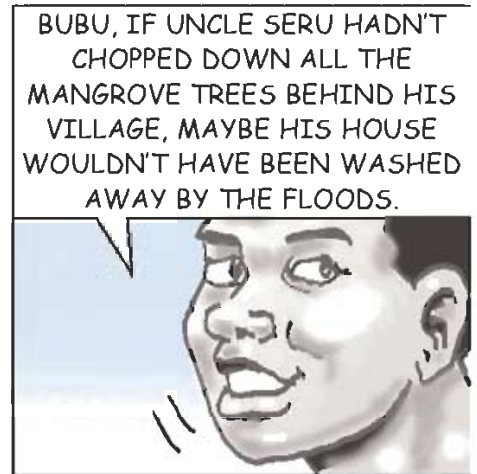
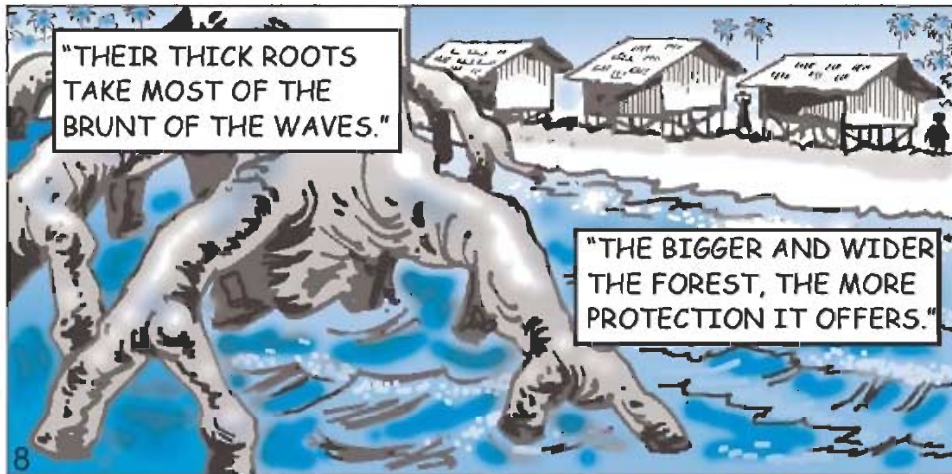
THE MANGROVES ARE
WHERE WE GET CRABS,
SHELLFISH AND
MULLET.

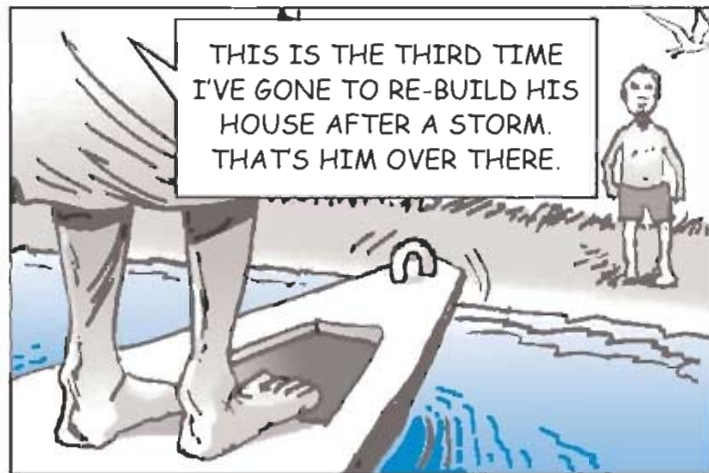


MANGROVES ARE ALSO WHERE WE
GET OUR BUILDING MATERIALS
AND FIREWOOD.



SO, IF WE CUT DOWN ALL
THOSE MANGROVE
FORESTS, WE'RE
PUTTING AN END
TO OUR FOOD AND
BUILDING SUPPLIES.
OK! I GET IT!





I TOLD YOU TO STOP CHOPPING DOWN THE MANGROVES. THEY HELP PREVENT YOUR HOUSE FROM GETTING WASHED AWAY



OKAY, OKAY - I KNOW. LET'S HAVE SOMETHING TO EAT FIRST.

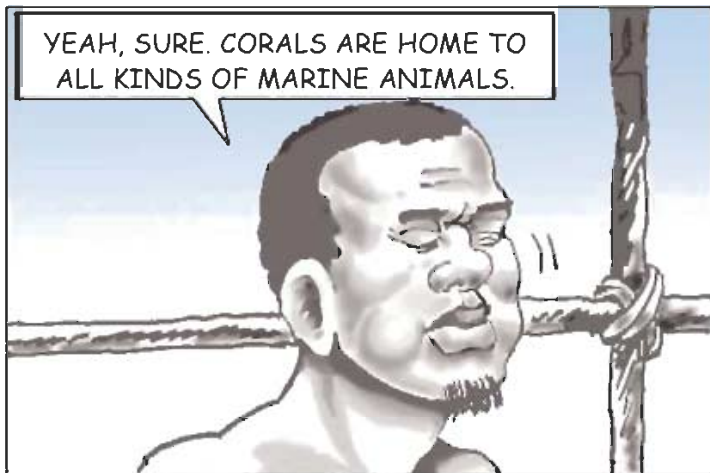


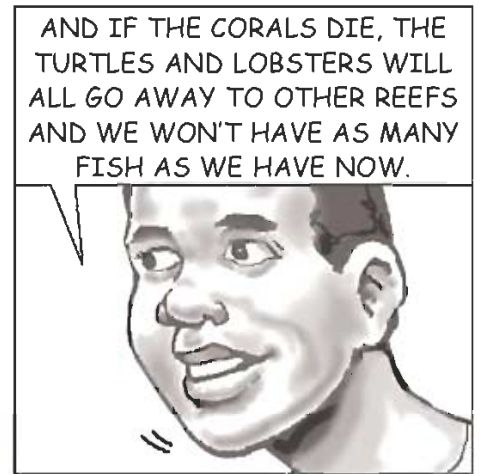
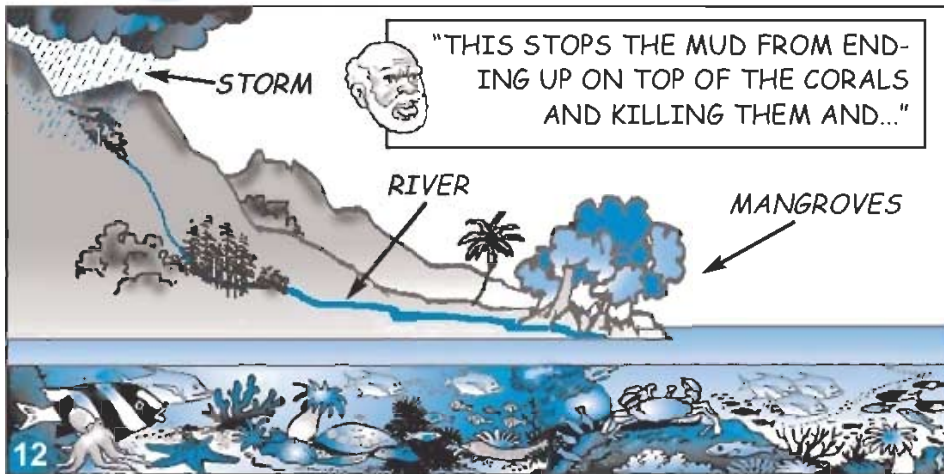
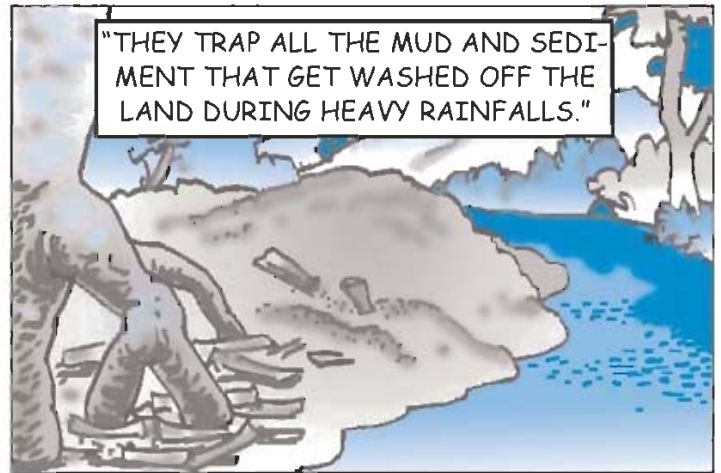
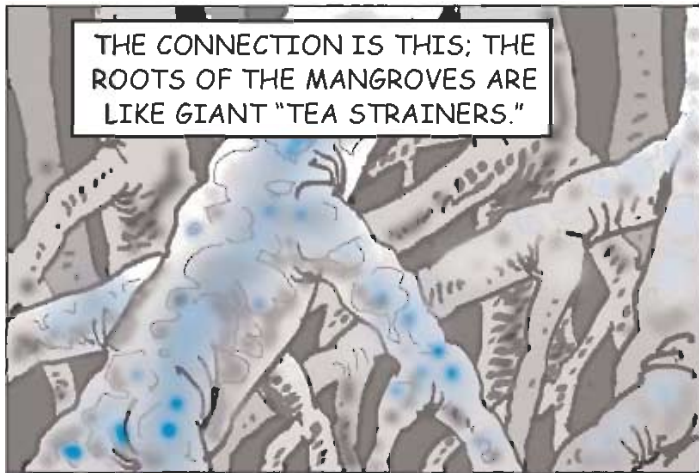
SORRY, BUT WE DON'T HAVE FRESH FISH SO I CAN ONLY OFFER TINNED FISH.



I DON'T KNOW WHAT'S WRONG WITH THE STUPID REEFS! THEY DON'T HAVE ANY MORE FISH IN THEM

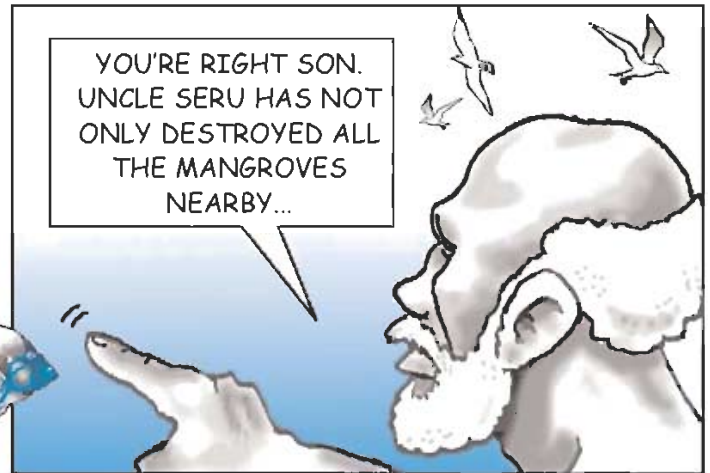








I GET IT ... SO WE NOT ONLY LOSE OUR SUPPLY OF CRABS AND SHELLFISH IN THE MANGROVES, BUT WE ALSO LOSE OUR SUPPLY OF FISH ON THE REEFS!



YOU'RE RIGHT SON. UNCLE SERU HAS NOT ONLY DESTROYED ALL THE MANGROVES NEARBY...



"BUT HE'S ALSO DESTROYED THE PLACES WHERE HE CAN GET FRESH FISH."



HEY UNCLE, THE LAST TIME I CAME HERE, UMMM 5 YEARS AGO, I THOUGHT YOU HAD YOUR HOUSE OVER THERE.

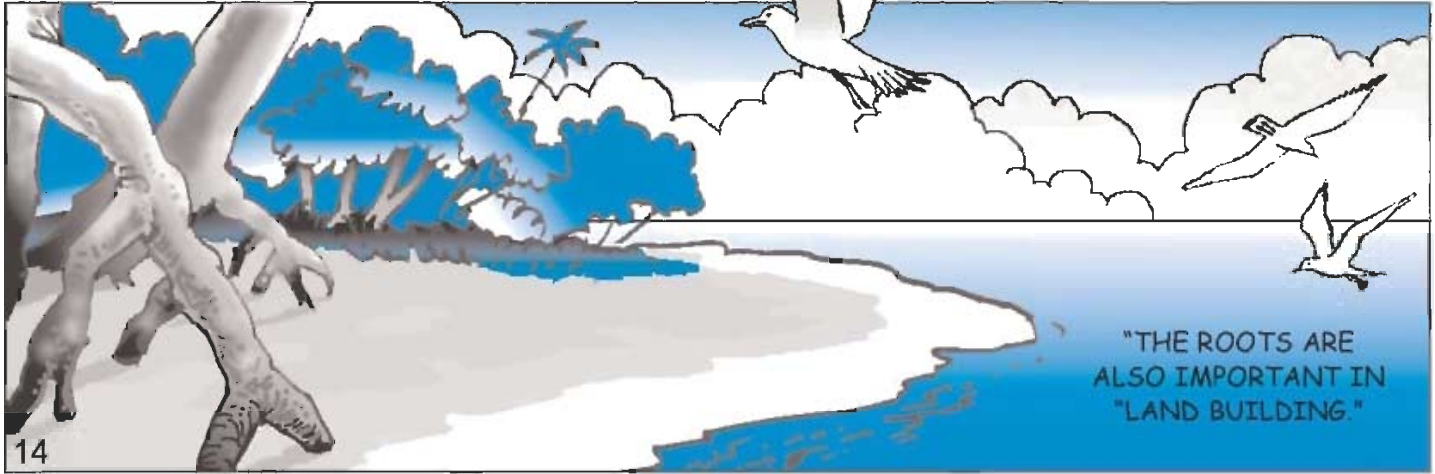
AM I
IMAGINING
THINGS OR IS
THE SHORLINE
MOVING?



YOU'RE RIGHT
KIDDO. SOME OF MY
LAND HAS GONE
UNDER WATER.



SIMON AND SERU, MANGROVE
ROOTS PREVENT THE SHORLINE
FROM BEING WASHED AWAY.



"THE ROOTS ARE
ALSO IMPORTANT IN
"LAND BUILDING."

WHAT DO YOU MEAN BY
"LAND BUILDING"?



"YOU SEE GRANDSON, THEIR ROOTS
TRAP SILT AND OTHER MATERIAL
THAT GETS CARRIED BY THE TIDES."



"THE MORE SILT THAT
GETS TRAPPED, THE
MORE LAND THAT GETS
BUILT."



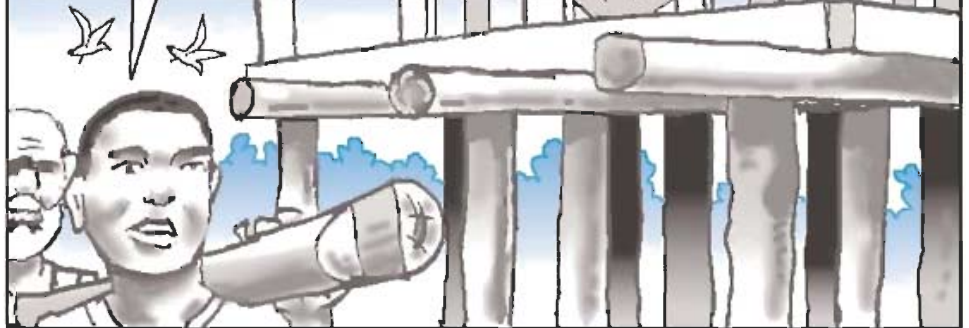
EVENTUALLY OTHER
PLANTS WILL START
GROWING ON THE SILT.
SLOWLY YOU START SEEING
LAND WHERE PREVIOUSLY
THERE WAS ONLY WATER.



MAN! THAT'S IMPORTANT.
WE'VE GOT MORE AND MORE
PEOPLE AND LESS AND LESS
LAND FOR EVERYONE.



WE COULD DO WITH SOME MORE.
UNCLE SERU YOU DEFINITELY COULD
DO WITH MORE LAND!



UNCLE, WHAT'S IT GONNA TAKE TO MAKE
YOU UNDERSTAND THE IMPORTANCE OF
LOOKING AFTER YOUR MANGROVES?



16

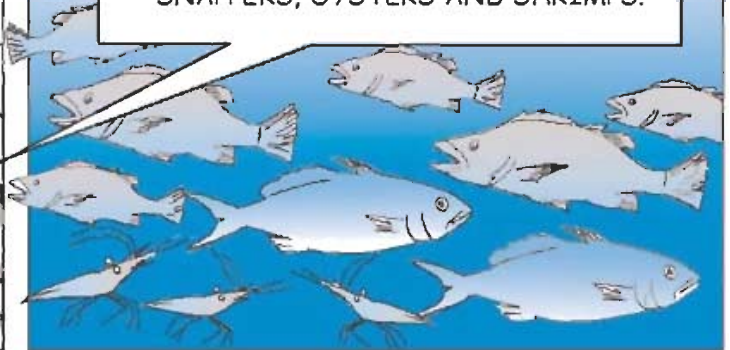
AFTER THEY HELPED UNCLE
SERU RE-BUILD HIS HOUSE,
THEY HEADED BACK TO
TOBI'S VILLAGE.



BUBU, I READ IN A BOOK THAT LOTS OF FISH SPEND THE EARLY PARTS OF THEIR LIVES IN MANGROVES. IS THAT TRUE?



"YEAH. THE MANGROVES PROVIDE FOOD FOR MANY MARINE ANIMALS, LIKE SNAPPERS, OYSTERS AND SHRIMPS."

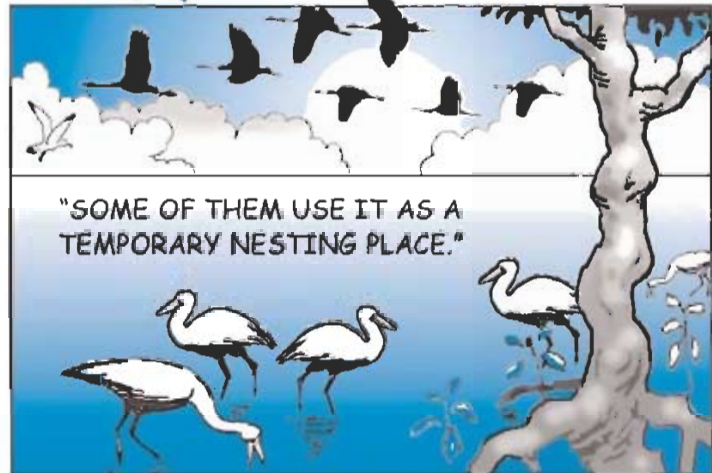
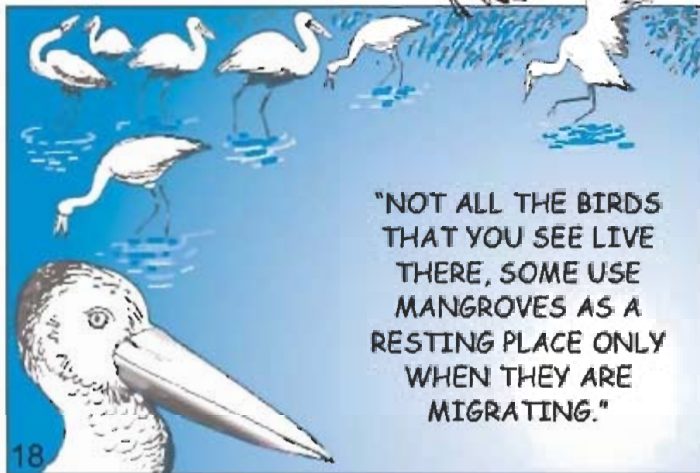
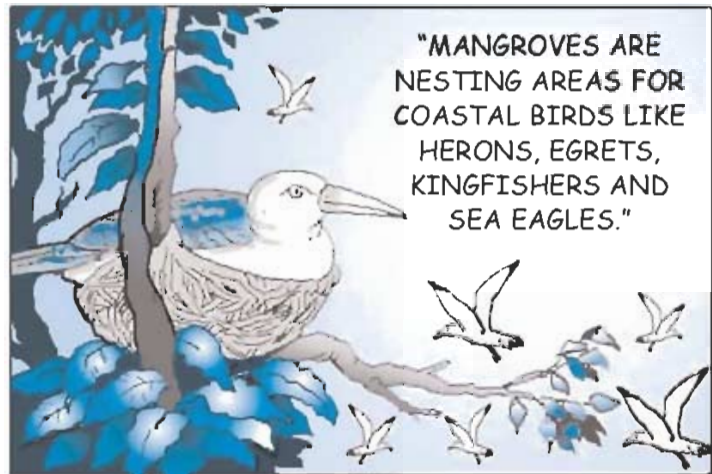
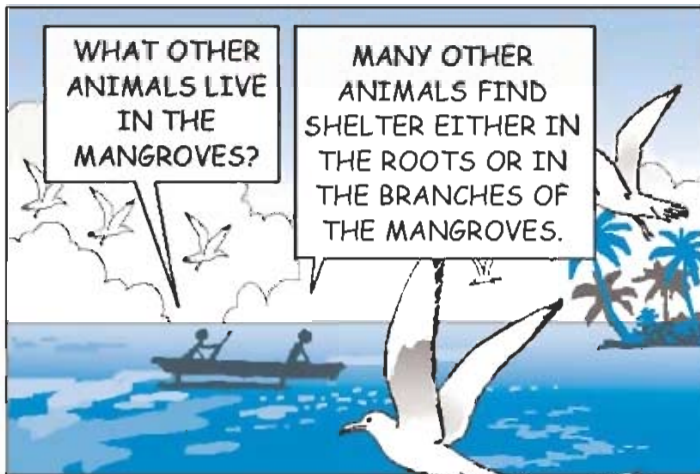


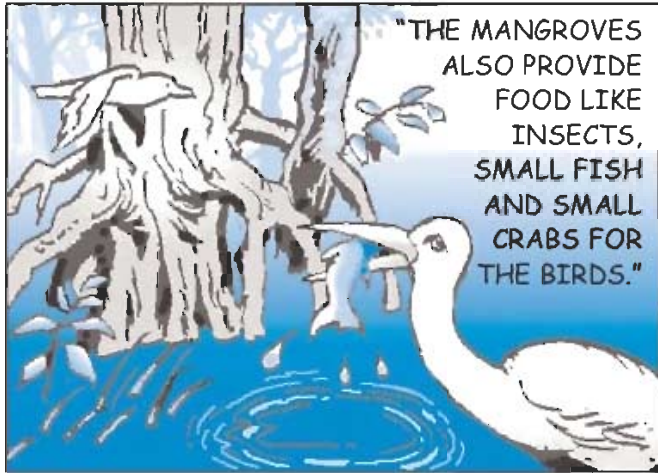
"BESIDES THAT, THE ROOTS PROTECT THE YOUNG ONES FROM PREDATORS."



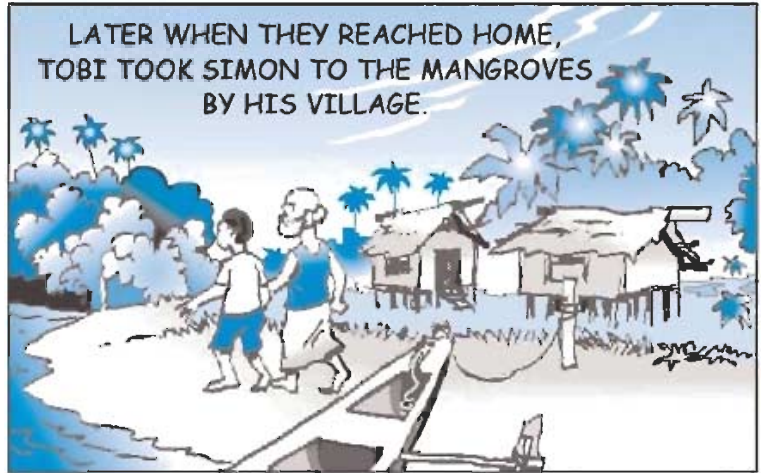
THEY LIVE THERE UNTIL THEY'RE OLD ENOUGH TO GO OUT ONTO THE REEFS OR INTO THE OPEN SEA.



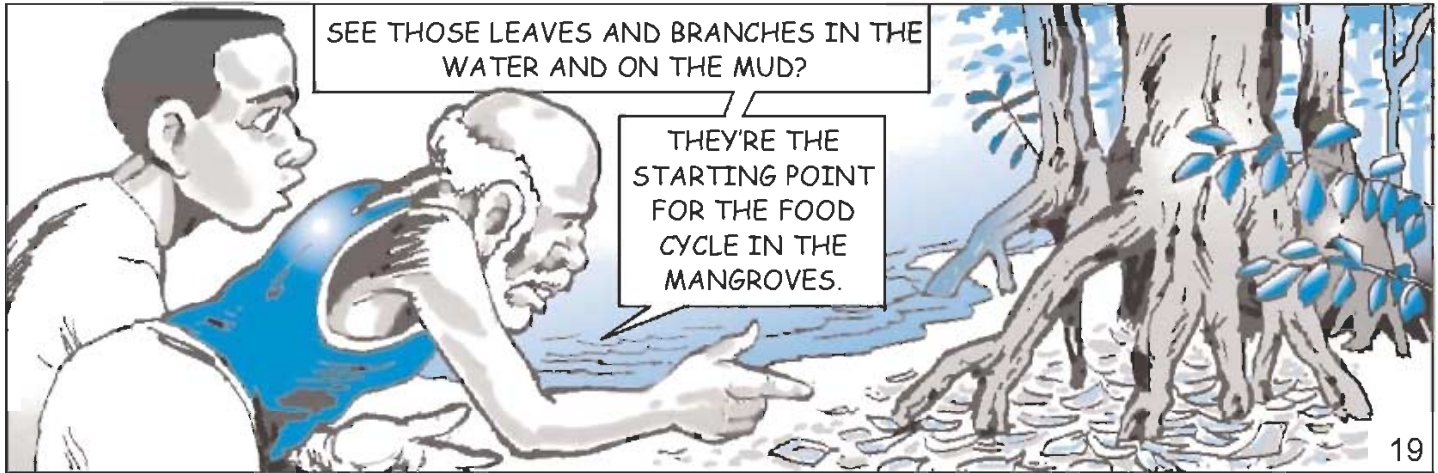




"THE MANGROVES ALSO PROVIDE FOOD LIKE INSECTS, SMALL FISH AND SMALL CRABS FOR THE BIRDS."



LATER WHEN THEY REACHED HOME, TOBI TOOK SIMON TO THE MANGROVES BY HIS VILLAGE.



SEE THOSE LEAVES AND BRANCHES IN THE WATER AND ON THE MUD?

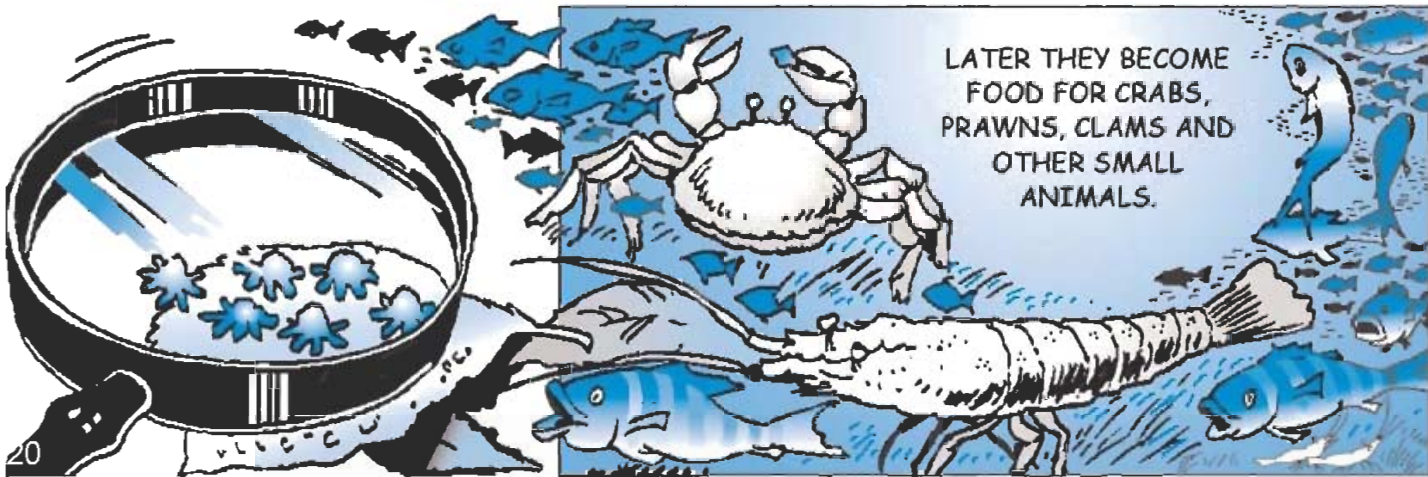
THEY'RE THE STARTING POINT FOR THE FOOD CYCLE IN THE MANGROVES.



HEY, I KNOW ABOUT THAT



BACTERIA GROWS ON THE LEAVES AND BARK OF TREES AND WHEN THEY FALL OFF, THEY START TO DECAY.

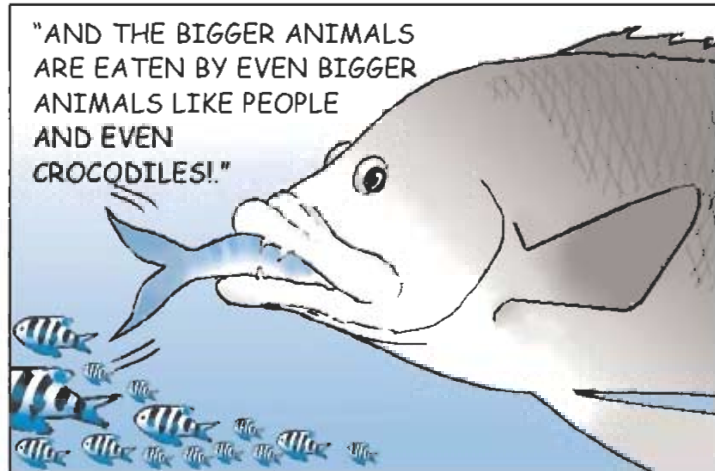


LATER THEY BECOME FOOD FOR CRABS, PRAWNS, CLAMS AND OTHER SMALL ANIMALS.

"THEN, THOSE SMALL ANIMALS ARE EATEN BY BIGGER ANIMALS LIKE FISH."



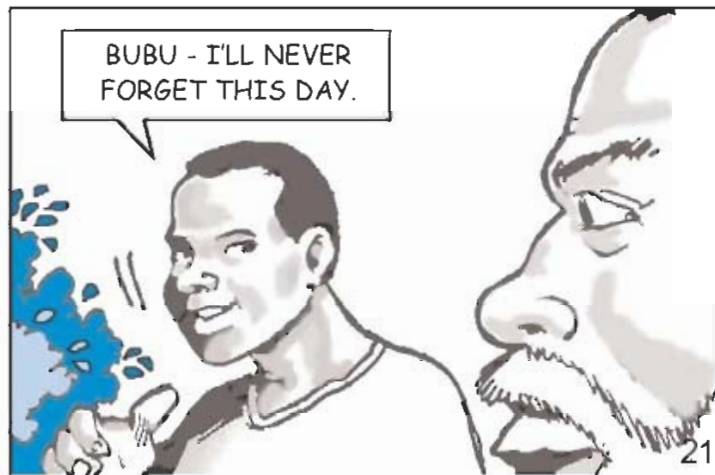
"AND THE BIGGER ANIMALS ARE EATEN BY EVEN BIGGER ANIMALS LIKE PEOPLE AND EVEN CROCODILES!"



I HOPE YOU LEARNED SOMETHING VALUABLE TODAY GRANDSON AND WILL GROW UP TO RESPECT YOUR ENVIRONMENT LIKE ME.



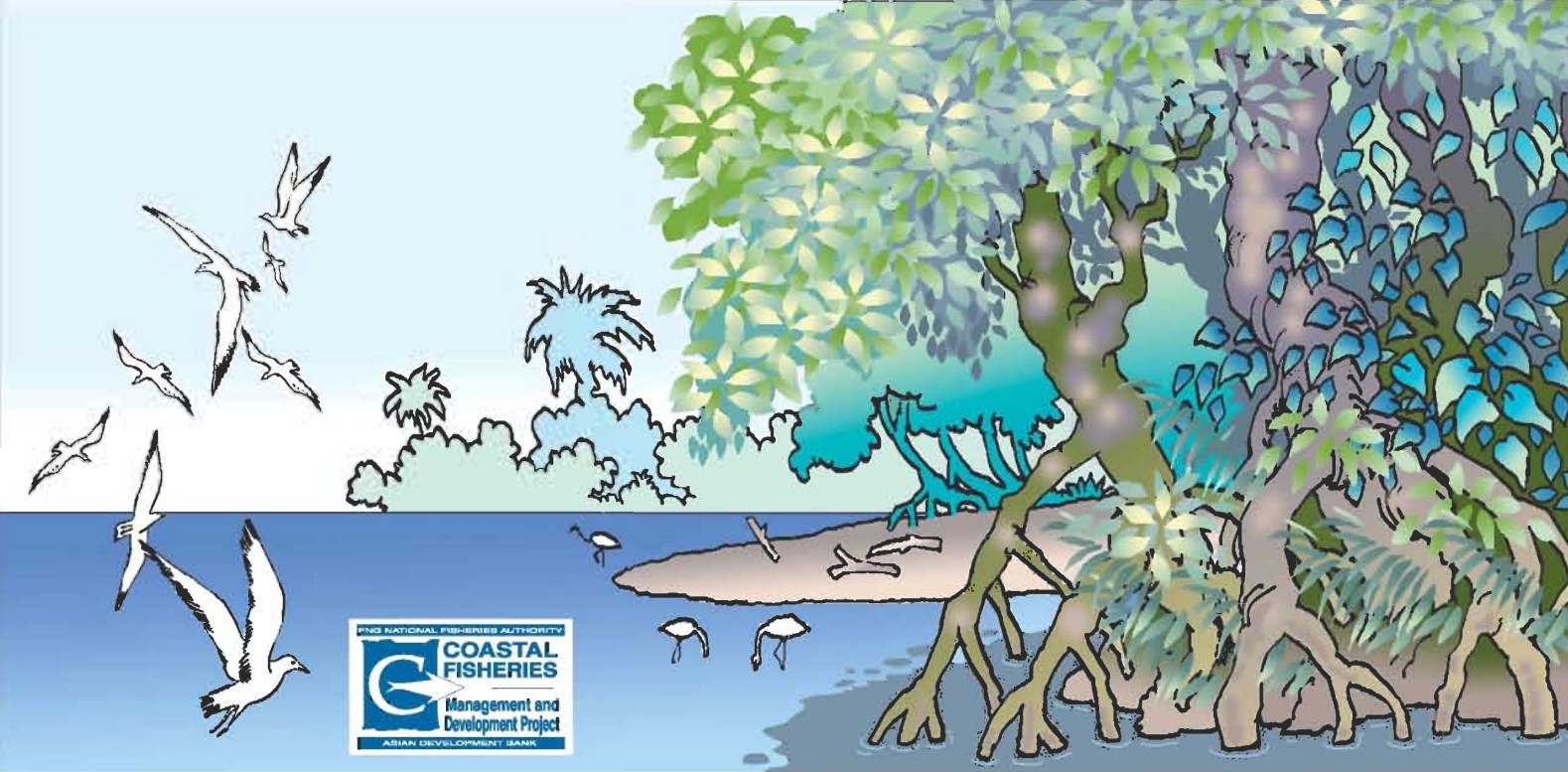
BUBU - I'LL NEVER FORGET THIS DAY.





WHY ARE MANGROVES IMPORTANT?

- Mangroves provide fish, crabs, wood and medicine for people.
- Many kinds of birds make their nests in the protective branches of mangrove trees.
- Mangroves protect coastal areas from erosion and damage from wind and storm waves with their thick, extensive root systems.
- Baby fish use the maze of arched mangrove roots to hide from their enemies until they are big enough to venture out onto the reefs.
- Mangrove roots stop mud and sediments that wash off the land during heavy rainfalls. This stops mud from ending up on top of the coral reefs and killing them.
- Mangroves are nurseries and breeding areas for many kinds of fish, crabs, lobsters and prawns.
- Dead leaves and animals that fall into the water are food for crabs, prawns and shellfish.
- Mangroves are important places for herons and other birds to hunt for insects, crabs, and other food.
- Mangrove trees rely on bats and insects to pollinate their flowers.
- Sea eagles make their nests from mangrove sticks and branches, and depend on the fish that live in the shallow water.



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