

# Unit 8

## Environment and Nature

### Objectives

After the completion of this unit, you will–

- read and understand texts through silent reading.
- ask and answer questions.
- describe the elements of nature and environment.

### Overview

Lesson 1: Water, Water Everywhere ...

Lesson 2: The Hakaluki Haor

Lesson 3: The Giant Panda

Lesson 4: Threats to Tigers of Mangrove Forest

Lesson 5: Kuakata: Daughter of the Sea

### Answer Key

## Lesson 1 : Water, Water Everywhere ...



### 1. Warm-up activity:

- Ask an elderly villager or relative how the river nearly was in his or her youth. Then compare the state of the river at present and write down the differences. Make a presentation in a group.
- With a group of friends, make a survey of ponds/water bodies in your locality. Then ask an elderly person living in the area if there were more of them in his younger days. Imagine the reasons why the water bodies/ponds had been filled up and write them down.



### 2. Now read the four lines from Samuel Taylor Coleridge's poem *The Rime of the Ancient Mariner* and answer the questions that follow:

Water, water, everywhere  
And all the boards did shrink;  
Water, water, everywhere,  
Nor any drop to drink

Coleridge' poem, a balled, narrates the harrowing sea-voyage of an old mariner who at one point of his journey didn't have any water to drink because of a curse. Cursed or not, we know how important drinking water is in our life. We know we cannot survive without it, In fact two-thirds of our body is made up of water. Not for nothing is it said that the other name of water? The United Nations in a meeting on the eve of the new millennium identified the drinking water problem as one of the challenges for the future. But do we need to worry about the problem as ours is a land of rivers and we have plenty of rainfall? Besides, we have a sea in our backyard too.

One of the sources of water in our country are the rivers. Rivers are everywhere in our life, literature, economy and culture. But are the rivers in good shape? Unfortunately, they are not. A few already dead and several are going through the pangs of death. The river Buriganga is an example of a example of a dying river. A report published in the Daily Sun describes what has happened to the river Buriganga and why. Its water is polluted and a perpetual stench fills the air around it. But that is not what it was like before.

The report says that the river had a glorious past. Once it was a tributary of the mighty Ganges and flowed into the Bay of Bengal through the river Dhaleshwari. Gradually, it lost its link with the Ganges and got the name Buriganga. The Mughals marveled at the tide level of the Buriganga and founded their capital Jahangirnagar on its banks in 1610. The river supplied drinking water and supported trade and commerce. Jahangirnagar was renamed Dhaka which grew into a heavily populated city with a chronic shortage of space.

The city paid back the bounty of the river by sucking life out of it! According to newspaper report, the Buriganga is dying because of pollution. Huge quantities of toxic chemicals and wastes from mills and factories, hospitals and clinics and households and other establishments are dumped into the river every day. The city of Dhaka discharges about 4500 tons of solid waste every day and most of it is directly released into the Buriganga. According to the Department of the Environment (DoE), 20,000 tons of tannery wastes, including some highly toxic materials, are released into the river every day. Experts identified nine industrial areas in and around the capital city as the primary sources of river pollution: Tongi, Tejgaon, Hazaribagh, Tarabo, Narayanganj, Saver, Gazipur, Dhaka Export Processing Zone and Ghorashal.

The river would need a monster's stomach to digest all the wastes mentioned above. There is a limit up to which it can put up with its cruel and thoughtless treatment. We the humans have successfully killed one of our rivers. There are other rivers in the country that are being subjected to similar thoughtless treatment. Unless we take care of our rivers there may come a time when we will cry 'water, water' and find it nowhere.

### **Vocabulary:**

Source (n) – the place something comes from or starts at

Perpetual (adj.) – never ending or changing

Link (n) – a connection between two people, things, or ideas

Heavily (adv) – in large amounts

Bounty (n) – a reward

Chronic (adj.) – persisting for a long time

Discharge (v) – to release something

Tide (n) – the rise and fall of the sea or river

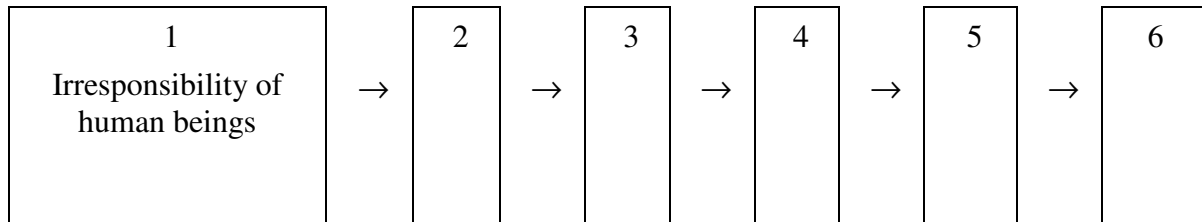
Stench (n) – a strong and very unpleasant smell

### **Do the following activities:**

3. Collect some reports on the dying rivers in Bangladesh from newspapers and magazines. Write a paragraph summarizing the main points.
4. Make a survey of the water bodies in your locality and write a report on whether they are being properly protected or not.
5. In a group, collect the data on the average rainfall of the last three years and write a report on any changes in our rainfall pattern.
6. The following words can be used both as verbs and nouns. Make sentences of your own to show the differences:
  - a. waste

- b. subject
- c. release
- d. marvel
- e. shape

7. Based on your reading of the passage, make short notes in each of the boxes in the flow chart showing the reasons behind the death of our rivers. (No. 1 has been done for you.)



8. Write a brief summary of the passage in your words.

## Lesson 2 : The Hakaluki Haor



### 1. Warm-up activity:

- Read the title of the article and look at the picture. Do not read the text yet. Guess what kind of Information you are likely to get from the article.
- In pairs, discuss whether the article may contain the following information-
- Location and surrounding areas of Hakaluki Haor
- Kinds of fish available in Hakaluki Haor
- Kinds of migratory birds that visit the Haor in winter
- The economic importance of the Haor



it.

## 2. Now read the article and see how much of the above information you can find in

### Hakaluki: A rich hub of biodiversity and livelihood

Bangladesh is blessed with huge inland open water resources. It has numerous river canals, beels, lakes and vast areas of floodplains. Hakaluki haor is one of the major wetlands of Bangladesh. With a land area of 18,386 hectares, it supports a rich biodiversity and provides direct and indirect livelihood benefits to nearly 190,000 people. This haor was declared an Ecologically Critical Area in April 1999 by the government of Bangladesh.

Hakaluki is a complex ecosystem, containing more than 238 interconnecting beels and jalmahals. The most important beels are Chatle, Pinlarkona, DullaSakua, Barajalla, Balijhuri, Lamba, Tekonia, Haorkhal, Tural, Baghalkuri and Chinaura.

Hakaluki Haor is bounded by the Kushiara river as well as a part of the Sonai-Bardal river to the north, by the Fenchuganj-Kulaura railway to the west and to the south, and by the Kulaura-Beanibazar road to the east. The haor falls under two administrative districts, Maulvubazar and Sylhet. Some 190,000 people live in the area surrounding the haor.



Hakaluki Haor is an important source of fisheries resources for Bangladesh. Kalibaus, Boal, Rui, Ghagot, Pabda and Chapila are the main fish species found here. From the Kushiara there are frequent upstream movement of fish towards the beels and tributaries of Hakaluki. The beels in Hakaluki haor provide winter shelter for the mother fisheries. In early monsoon these mother fisheries produce millions of fries for the entire downstream fishing communities. Floodplains are also an important source of fisheries resources within the area. However, many of the beels

have lost their capacity to provide shelter for mother fisheries because of sand deposits from upstream rivers and canals, use of complete dewatering technique for fishing and lack of aquatic plants to provide feed and shelter for parent fish. The haor is very important resting place for migratory waterfowls flying in from the north. The most interesting species is the Barheaded Goose, which is now hardly seen in fresh water wetlands. Many other important species of waterfowls make the Haor their temporary home. Unfortunately, illegal poaching has been a threat to the waterfowl population in these vast wetlands. Hakaluki haor is known as a good grazing land in winter. People from villages around the Haor and also from distant areas send their herds for grazing. During this time, herders make temporary shelters near the beels and graze their animals for a period of 4-5 months. The Haor had very dense swamp forests in the past, but deforestation and a lack of conservation practices have virtually destroyed this unique forest in the last two decades.



Two small patches of swamp forests still exist in the area of which one is in Chatlabeel and the other near the village of Kalikrishnapur. With the exception of these two swamp forest patches, the vegetation surrounding Hakalukihaor is unique. It includes both swamp forest as well as mixed evergreen rain forest. Thatching material is the most useful natural wetland product of the area.

The haor system provides a wide range of economic and non-economic benefits to the local people as well as to the people of Bangladesh. These include fish production, rice production, cattle and buffalo rearing, duck rearing, collection of reeds and grasses, and collection of aquatic and other plants. The haor system also protects the lower floodplains from flash floods occurring in the months of April-May, maintains the supply of fish in other lower water bodies and provides habitat for migratory and local waterfowls.

The unique haor system contributes to the beauty of the landscape both during the monsoon and the dry season. In monsoon, its unique scenic beauty makes it a hugenatural bowl of water and in the dry season it becomes vast green grassland with pockets of beels serving as resting places for migratory birds. This unique natural system can be a major attraction for tourists.

**Vocabulary:**

Numerous (adj.) – great in number

Inland (n) – the interior part of a country

Complex (adj.) not easy to analyze or understand

Bound (v) – to mark or form the limits of

Fry (n) – small fish

Distant (adj.) – far away

Unique (adj.) being the only one of its kind

Rear (v) – raising animals

Flash flood (n) – a sudden and severe flood

Scenic (adj.) – of relating to natural scenery

Rain forest (n) –forest with heavy rainfall

Reed (n) – a tall, thin grass that grows in wet areas

**3. Answer the following questions:**

- Why is Hakaluki Haor an important source of fisheries?
- What are ‘mother fisheries’? What do they do?
- What bird species are seen in Hakaluki Haor in winter?
- What economic benefits does the Haor provide to locals?
- Describe the natural beauty of Hakaluki Haor.

**4. Do you know any wetland (beel, jalmahal, haor etc.) in your area? Write a short article in 150 words about the wetland. Your article should contain some or all of the following points:**

- the name, location and area of the wetland
- the kinds of fishes available
- the kinds of vegetation that grow in and around
- benefits it provides
- its natural beauty

**5. Match the words in Column A with their meanings in Column B.**

i. floodplains	a. water birds such as ducks and geese
ii. ecosystem	b. a stream or river that flows into a large river or a lake
iii. tributary	c. all the plants or plant life of a place, taken as a whole
iv. fry	d. common name for several tall, grass-like plants of wetlands
v. aquatic	e. a sudden and rapid rise in river or lake water overflowing banks, typically due to heavy rain
vi. waterfowls	f. the young of various species of fish
vii. swamp forests	g. low, flat, periodically flooded lands adjacent to rivers, lakes etc.
viii. vegetation	h. a community of living and non-living things that work together
ix. reed	i. living or growing in, on, or near the water
x. flash flood	j. forest which are inundated with fresh water, either permanently or seasonally

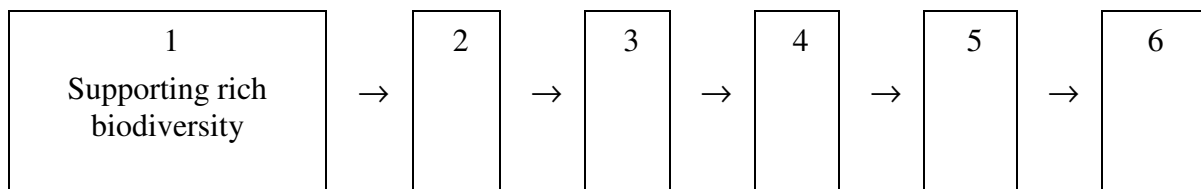
6. Find English equivalents of the following water-bodies and give a brief description of each:

- a. beel
- b. haor
- c. jalmahal

7. Give antonyms of the following words:

- a. complex
- b. numerous
- c. major
- d. downstream
- e. mixed
- f. distant

8. Based on your reading of the passage, make short notes in each of the boxes in the flow chart showing the blessing of Hakaluki Haor. (No. 1 has been done for you.)



9. Write a brief summary of the passage in your words.

### Lesson 3 : The Giant Panda

1. Warm-up activity:

Look at the picture of a panda below. Discuss the following questions in pairs.

- Have you ever seen a panda? If yes, where did you see it-in a zoo or on television?
- What does a panda look like? Does it look like any other animal that you know?
- Which country has the largest number of pandas?



2. Now read the text and answer the questions that follow:

#### Panda's bamboo food may be lost to climate change

Though they are one of the most beloved animal species on Earth, pandas aren't safe from the devastating effects of climate change. According to a new study, projected temperature increases in China over the next century will likely seriously hinder bamboo, almost the sole source of food for endangered pandas. Ninety-nine percent of a panda's diet is bamboo and an adult panda



needs around 38 kilograms of bamboo every day. Only if bamboo can move to new habitats at higher elevations will pandas stand a chance of survival, the researchers said.

However, if conservation programs wait too long, human inhabitants and activities could claim all of the new habitats capable of supporting bamboo in a warming world.

“It is tough, but I think there’s still hope, if we take action now,” said research team member Jianguo Liu.... “If we wait, then we could be too late.”

The researchers used various climate-change models to project the future for three bamboo species relied on by pandas in the Qinling Mountain region of China, which represents about a quarter of the total remaining panda habitat. These models varied in their specific predictions, but each forecasted some level of temperature rise within the coming century.



The results suggest that if the bamboo is restricted to its current distribution area, between 80 and 100 percent of it will disappear by the end of the 21<sup>st</sup> century, because it won’t be able to grow under the increased temperatures.

If however, bamboo can move into new, cooler areas (which will reach the same temperatures as current bamboo habitats due to warming), then there is hope. However, all depend on the extent to which humans can curtail climate change by limiting greenhouse-gas emissions in the future.

Many pandas in the wild currently live in nature reserves protected from human encroachment. However, almost all of the land encompassed by those reserves will be unsuitable for the bamboo if the temperatures rise as predicted. But if conservationists plan ahead now to move those reserves in line with changing bamboo habitats, then it may be possible to preserve the land the pandas will need.

And climate change is not the only challenge facing giant pandas, one of the most endangered species in the world, researchers say. Human activities have already severely limited the animals’ habitats, and their dependence on a single source of food, one that is not that nutrient – or energy- rich, doesn’t help.

In addition to their native habitats in China, pandas live around the world in zoos and breeding centers. But Liu doesn’t predict a bright future for the bears if they lose their wild habitats. “To really protect pandas, you cannot just stick [them] into a breeding center or a zoo,” he said, noting that the animals’ genetic diversity would suffer, among other issues. “That’s not a long-term solution.”

[Clara Moskowitz:<http://www.livescience.com/24697-giant-panda-climate-change-bamboo-impact.html>]

**Vocabulary:**

- Beloved (adj.) – very much loved
- Devastating (adj.) –highly destructive or damaging
- Sole (adj.) – being the only one
- Effect (n) – the result of a particular influence
- Vary (v) – to be different from each other
- Prediction (n) – a thin predicted; a forecast
- Restrict (v) – put a limit on; keep under control
- Emission (n) an amount of gas, heat, light, etc. that is sent out
- Rely (v) – depend on with full trust or confidence
- Current (adj.) – present; most recent
- Encompass (v) – surround and have or hold within
- Unsuitable (adj.) – not acceptable or right for someone or something
- Preserve (v) – to protect or maintain
- Native (adj.) – belonging to a place by birth
- Breed (v) – to produce or offspring
- Genetic (adj.) – of relating to origin



**3. From your reading of the text, answer the following questions:**

- a. Why have the pandas forests disappeared?
- b. How much does an adult panda eat a day?
- c. When might the Qinling Mountains bamboo disappear?
- d. How would you define the scientist Jianguo Liu’s attitude? Is he an/a optimist/pessimist? Why do you think so?

**4. Match the words in *Column A* with their synonyms in *Column B*:**

<i>Column A</i>	<i>Column B</i>
1. endangered	a. danger
2. several	b. difficult
3. gone	c. a number of
4. threat	d. food
5. diet	e. threatened
6. predict	f. likelihood
7. entire	g. specialist
8. change	h. whole
9. tough	i. disappeared
10. expert	j. forecast

**5. From your reading of the text, discuss whether the statements (a-h) below are true or false. Then compare your answers with those of a friend:**

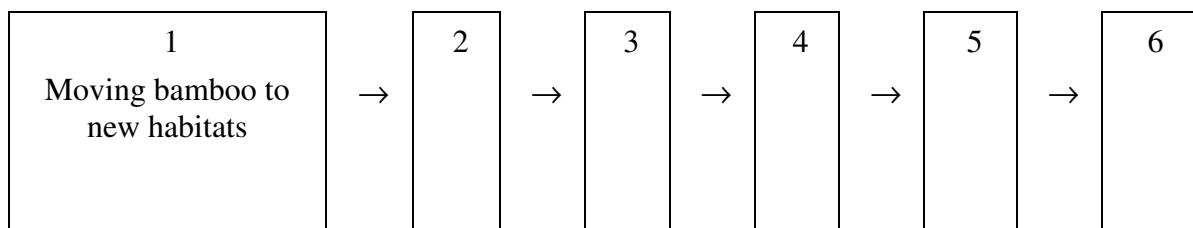
- |   |     |
|---|-----|
| a. The giant panda will soon be put on the endangered list        | T/F |
| b. The article gives seven reasons for the fall in panda numbers. | T/F |
| c. Bamboo is disappearing because of a bug that is eating it.     | T/F |

- d. Around 99% of a panda’s diet is bamboo. T/F
- e. A report said the bamboo in a Chinese mountain range may disappear. T/F
- f. The report says bamboo could disappear in the next two decades. T/F
- g. Pandas may survive if there is bamboo higher up the mountains. T/F
- h. A panda expert said the world should wake up and help the panda. T/F

**6. Role play:** Student A strongly believes that the panda will survive in the wild; Student B strongly believes that the panda has no chance of survival. Have a conversation in pairs on the issue. Use as much information as you can get from the text above. You may also add your own views and knowledge to support your stand.

**7. Poster making:** Look at the posters below for raising awareness among people to save pandas. Think of an animal in Bangladesh that is also in the list of endangered species. Make a poster with a slogan to create awareness among people to save that animal.

**8. Based on your reading of the passage, make short notes in each of the boxes in the flow chart showing steps that should be taken to save pandas. (No. 1 has been done for you.)**



**9. Write a brief summary of the passage in your words.**

**10. Fill in the blanks with suitable words from the box, (make any grammatical changes if necessary). There are more words in the box than you need.**

chase	row	distance	watch	notice	ride
real	false	races	most	struggle	run

Animals do not race unless they are made to (a) — in some way, though it often seems as if little lambs are running (b) — with each other in the fields in spring. Horses are (c) —, of course. Dogs won’t race unless they have something to (d) —and so they are given a hare to run after, either a (e) — one or an imitation one. The (f) — famous boat race in England is between Oxford and Cambridge. It is (g) — over a course on the river Thames, and thousands of people (h) — it. The eight rowers in each boat have a great (i) — and at the end there is usually only a short (j) — between the winners and the losers.

## Lesson 4 : Threats to Tigers of Mangrove Forest



### 1. Warm-up activity:

- Spend a few minutes writing down all the different words you associate with tigers. Share your words with your friend (s) and talk about them. Together, put the words into different categories.
- Share your notes with those of your friend and tell the class about your thoughts/points



**2. Read the report on the alarming fate of the Royal Bengal Tigers and answer the questions below. The report was published in the online version of *The Guardian newspaper*.**

A vast mangrove forest shared by Bangladesh and India that is home to possibly 500 Bengal tigers is being rapidly destroyed by erosion, rising sea levels and storm surges, according to a major study researcher at the Zoological Society of London (ZSL) and other.

The sundarbans forest took the brunt of super cyclone Sidr in 2007, but new satellite studies show that 71% of the forested coastline is retreating by as much as 200 metres a year. If erosion continues at this pace, already threatened tiger populations living in the forests will be put further at risk.

Natalie Pettorelli, one of the report's authors said: "Coastline retreat is evident everywhere. A continuing rate of retreat would see these parts of the mangrove disappear within 50 years. On the Indian side of the Sundarbans, the island which extends most into the Bay of Bengal has receded by an average of 150 metres a year, with a maximum of just over 200 metres; this would see the disappearance of the island in about 20 years."



The Sundarbans is known for vanishing islands but the scientists said the current retreat of the mangrove forests on the southern coastline is not normal. “The causes for increasing coastline retreat, other than direct anthropogenic ones, include increased frequency of storm surges and other extreme natural events, rises in sea-level and increased salinity which increases the vulnerability of mangroves,” said Pettorelli.

“Our results indicate a rapidly retreating coastline that cannot be accounted for by the regular dynamics of the Sundarbans. Degradation is happening fast, weakening this natural shield for India and Bangladesh.”

“As human development thrives, and global temperature continues to rise, natural protection from tidal waves and cyclones is being degraded at alarming rates. This will inevitably lead to species loss in this richly biodiversity part of the world, if nothing is done to stop it.”

“The Sundarbans is a critical tiger habitat; one of only a handful of remaining forests big enough to hold several hundred tigers. To lose the Sundarbans would be to move a step closer to the extinction of these majestic animals,” said ZSL tiger expert Sarah Christie.

[Source: <http://www.theguardian.com/environment/2013/jan/29/sunderbans-disappearing-mangrove-india-bangladesh> By: John Vidal, Tuesday 29 January 2013]

### **Vocabulary:**

Brunt (n) – the main force of something

Coastline (n) – the land along a coast

Threatened (adj.) – a danger or at risk

Evident (adj.) – clearly seen or understood; obvious

Disappear (v) to no longer exist

Degrade (v) – to make something become worse

Inevitably (adv.) – certain to happen; unavoidably

Extreme (adj.) – reaching a high or the highest degree; very great

Weaken (v) – make or become weaker in power, resolve

Thrive (v) – to prosper; be fortunate or successful

### **3. Read the statements below and say if they are true (T) or (F):**

a. There are about 500 tigers in the Sundorbans.

- b. Researchers forecast that some parts of the Sundarbans might cease to exist in the next 50 years.
- c. Natural calamities are the only reasons for the increase in coastline retreats.
- d. There has been less natural protection from storms and tidal waves.
- e. The Sundorbans is a world famous site for its biodiversity

**4. Match the words from the report in *Column A* with their meanings in *Column B*:**

<i>(Column A) Words</i>	<i>(Column B) Meanings</i>
1. erosion	i. (noun) the natural environment in which a species or group of species lives
2. to retreat	ii. (adjective) of, relating to, or resulting from the influence of human beings on nature
3. mangrove	iii. (mangrove) a tropical tree that has roots which grow from its branches and that grows in swamps or shallow salt water
4. coastline	iv. (noun) the state or situation that results when something (such as a plant or animal species) has died out completely
5. storm surge	v. (verb) a process by which the surface of the earth is worn away by the action of water, winds, waves, etc.
6. to account for	vi. (verb) to move back from a position of advancement or become smaller
7. anthropogenic	vii. (verb) to grow vigorously, flourish
8. to thrive	viii. (noun) the outline of a coast, esp. when seen from the sea, or the land adjacent to it
9. habitat	ix. (noun) an abnormal rise in the level of the sea along a coast caused by the onshore winds of a severe cyclone
10. extinction	x. (phrasal verb) to be there as an explanation for something

**5. Talk in pairs about tigers. Use the questions cards below to guide your discussion. Student A and B will have separate questions cards. Make sure you don't show your questions to your friend.**

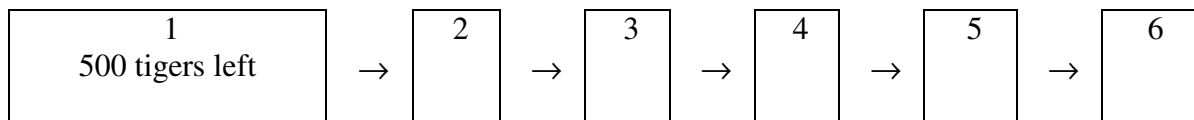
<u>Student A's Questions</u>
<ul style="list-style-type: none"> <li>a. Do you like tigers?</li> <li>b. How interested are you in animal conservation?</li> <li>c. If the tiger disappears, what will this say about mankind?</li> <li>d. Are there any animals besides the tigers that are endangered in Bangladesh?</li> <li>e. What do you think of the fact there are only 300 tigers in the whole of Bangladesh?</li> <li>f. Whose responsibility do you think it is to save the tiger?</li> </ul>

<u>Student B's Questions</u>
<ul style="list-style-type: none"> <li>a. Do you think it is possible for all big cats to become extinct?</li> <li>b. Do you think it is possible to breed enough tigers and introduce them in the wild?</li> <li>c. What do you think of poaching?</li> <li>d. What punishment should be given to people who trade in products made from endangered species?</li> <li>e. If you saw tiger products for sale, what would you do?</li> <li>f. How can the world stop the trade in tiger products?</li> </ul>

**6. TIGERS' SURVEY: In pairs / groups, make questions about saving tigers and other animals from extinction and do the following:**

- Ask other classmates your questions and note down their answers.
- Go back to your original friend/group and compare your findings.
- Make mini-presentations to other groups on your findings.

**7. Based on your reading of the passage, make short notes in each of the boxes in the flow chart showing the condition of Sundarbans. (No. 1 has been done for you.)**



**8. Write a brief summary of the passage in your words.**

## Lesson 5 : Kuakata: Daughter of the Sea

### 1. Warm-up activity:



Discuss the following questions in pairs.

- What do you know about Kuakata?
- What does the phrase 'Daughter of the Sea' in the title means?
- Tell your friend what you wish to know about Kuakata.



**2. Now read the passage below and answer the questions that follow:**

Kuakata, locally known as *Sagar Kannya* (Daughter of the Sea) is a rare scenic spot located on the southernmost tip of Bangladesh. Kuakata in Latachapli union under Kalapara Police Station of Patuakhali district is about 30 km in length and 6 km in breadth. It is 70 km from Patuakhali district headquarters and 320 km from Dhaka. An excellent combination of the picturesque

natural beauty, sandy beaches, blue sky and the shimmering expanse of water of the Bay of Bengal and the evergreen forest makes Kuakata a much sought after tourist destination.

The name Kuakata takes its origin from the story of a 'Kua' – or well – dug on the sea shore by the early Rakhaine settlers for collecting drinking water. The Rakhaines had landed on Kuakata coast after being expelled from Arakan by the Mughals. Following the first well, it became a tradition to dig wells in the neighborhood of Rakhaine homesteads for fresh water supply.

Kuakata is one of the unique spots which allow a visitor to watch both the sunrise and the sunset from the beach. That perhaps makes Kuakata one of the world's most attractive beaches. The long and wide beach at Kuakata has a typical natural setting. This sandy beach slopes gently into the Bay and bathing there is as pleasant as is swimming or driving.



Kuakata is truly a virgin beach and a sanctuary for migratory winter birds. Fishing boats plying in the Bay of Bengal with colorful sails, surfing waves and the lines of coconut trees add to the vibrant colors Kuakata. The indigenous culture of the Rakhaine community and hundred year old Buddhist temples indicate the age- old tradition and cultural heritage of this area.





Kuakata is also a holy land for the Hindus and Buddhists. Each year thousands of devotees come here to attend the festivals *Rash Purnima* and *Maghi Purnima*. On these two days, pilgrims take holy bath and enjoy going to the traditional fairs.

**Vocabulary:**

Rare (adj.) – very unusual

Picturesque (adj.) – visually attractive

Expanse (n) – a large, open area of water

Origin (n) – the point or place where something begins

Shore (n) – the land along the edge of the sea

Expel (v) – force someone to leave a place

Homestead (n) – a house and the surrounding area of land

Sandy (adj.) – covered with sand or containing sand

Sanctuary (n) a safe place

Heritage (n) – property that is or may be inherited

Traditional (adj.) existing in or as part of a tradition

Vibrant (adj.) – pulsating with vigor and energy

Ply (v) – travel regularly over a route

Typical (adj.) – characteristic of a particular person or thing

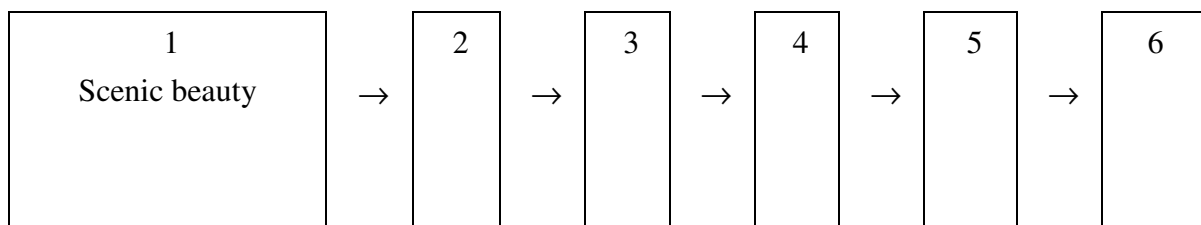


- 3. Answer the following questions:**
- Where is Kuakata located?
  - Where does the name 'Kuakata' come from?
  - What is the most unique feature of Kuakata beach?
  - What are some traditional events that take place in Kuakata?
  - Would you like to visit Kuakata? Make a list of 3 things that you'd like to do while in Kuakata.
- 4. Find the noun forms of the followings adjectives:**
- attractive
  - typical
  - migratory
  - wide
  - long
- 5. What do these words mean in the context they have been used in the text:**
- expanse
  - unique
  - virgin
  - indigenous
  - devotee
  - heritage
- 6. Project: Imagine that you work in a tourist agency. You are going to make a leaflet on Kuakata to attract potential tourists. Make a draft of 100 words for the leaflet highlighting all the attractions of the place.**

Look at the sample of the leaflets given below. Think about how to design the leaflet. Try to use some attractive pictures of Kuakata sea beach.

Finally, make a leaflet on Kuakata and display it in your college common room.

- 7. Based on your reading of the passage, make short notes in each of the boxes in the flow chart showing the charm and significance of Kuakata. (No. 1 has been done for you.)**



- 8. Write a brief summary of the passage in your words.**
- 9. Fill in the gaps with a suitable word from the box {make any grammatical changes necessary}. There are more words in the box than you need.**

plenty of	expanse	collect	touch	originate	mild	nature
sandy	dominates	colourful	having	tourism	birds	

Kuakata, locally known as *Sagor Kannya* (daughter of the sea) is a rare scenic beauty. Their name Kuakata have (a) — from kua (well) dug on the sea shore by the early Rakhine settlers

in quest of (b) — drinking water. It (c) — the unending expanse of (d) — beauty (e) — excellent combination of (f) — waves of the Bay of Bengal. It has (g) — beach, blue sky and unending rows of plantation. Forest, boat plying in the Bay of Bengal with (h) — sails, fishing, towering cliffs, everything here (i) — visitors heart. A comprehensive plan may make it a nice (j) — spot.

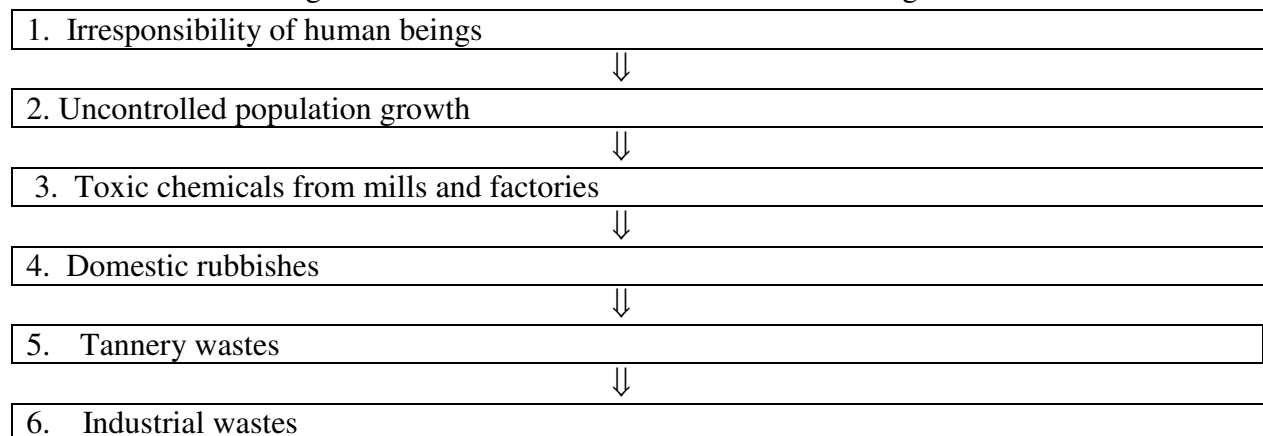
## Answer Key

### Lesson 1

3. Prepare the answers by yourself and show your tutor.
4. Prepare the answers by yourself and show your tutor.
5. Prepare the answers by yourself and show your tutor.
- 6.

Word	As verb	As noun
Waste	Do not waste your time.	It is a bad habit to throw waste into water.
Subject	He had subjected her to an intolerable suffering.	Our subject for discussion is the dying rivers
Release	The police released the thief.	The movie will be on release from Friday.
Marvel	We stopped to marvel at the view.	It's a marvel how they have managed to build the flyover so quickly.
Shape	You should shape your life with honesty, integrity and sincerity.	Clay can be molded into any shape.

7. A flow chart showing the characteristics of Antonis Pikrocholos is given below:



8. Prepare the answers by yourself and show your tutor.

### Lesson 2

3. Prepare the answers by yourself and show your tutor.
4. Prepare the answers by yourself and show your tutor.
5. (i+g); (ii+h); (iii+b); (iv+f); (v+i); (vi+a); (vii+j); (viii+c); (ix+d); (x+e).

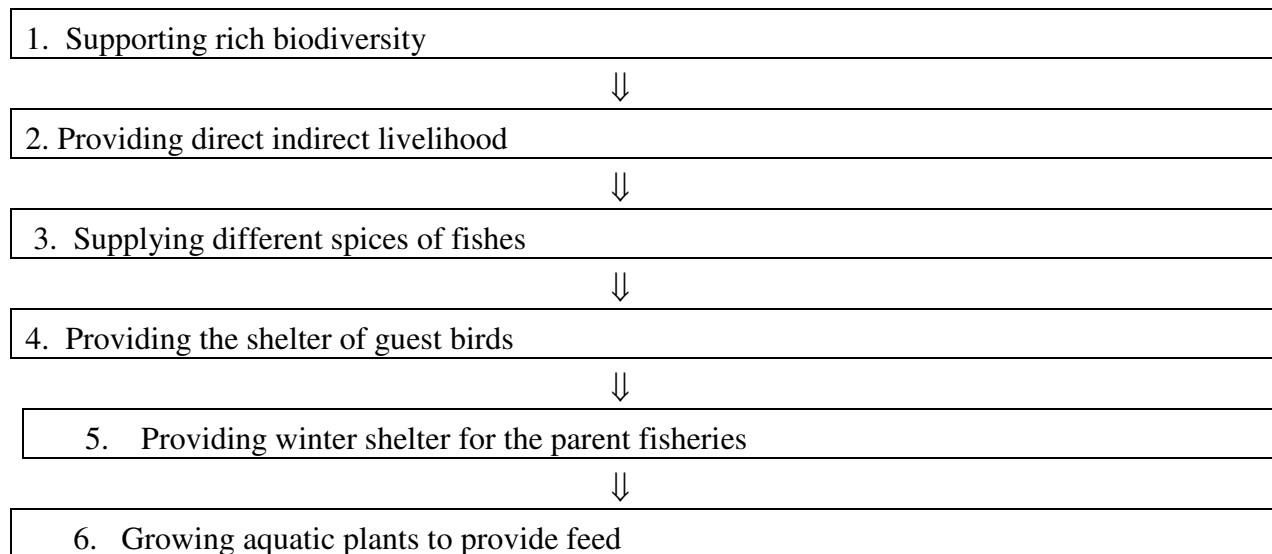
6.

a. Beel	Marsh	A beel is a term for billabong or a lake-like wetland with static water, in the Ganges- Brahmaputra flood plains of the Eastern Indian states of West Bengal, and Assam and in Bangladesh.
b. Haor	Depression	A haor is a wetland ecosystem in the north eastern part of Bangladesh which physically is a bowl or saucer shaped shallow depression, also known as a backswamp.
c. Jalmahal	Water body	Jal Mahal is a place of water body like a lake.

7.

a. Complex	simple
b. numerous	few
c. major	minor
d. downstream	upstream
e mixed	unmixed
f distant	close

8. A flow chart showing the blessing of Hakaluki Haor is given below:



9. Prepare the answers by yourself and show your tutor.

**Lesson 3**

3. Prepare the answers by yourself and show your tutor.

4.

1. endangered	e) threatened
2. several	c) a number of
3. gone	i) disappeared

4. threat	a ) danger
5. diet	d) food
6. predict	j) forecast
7. entire	h) whole
8. chance	f) likelihood
9. tough	b) difficult
10. expert	g) specialist

5.

- a. A: I think the statement is true. The reason is, by the end of the 21<sup>st</sup> century the area of growing bamboo will be disappeared between 80 to 100 percent. For this reason pandas will be in crisis of food.
- b. A: Yes, this statement is true. The article demonstrates seven reason for the pandas' fall in numbered.
- c. A: No, the statement is false. Bamboo is disappearing due to increasing global temperature. The increased temperature is an huge embargo to grow bamboo.
- d. A: Yes, this statement is true according to the article showed.
- e. A: True, If the temperature increases at the same rate, bamboo in the Qinling Mountain range might be disappeared.
- f. A: False, According to the report the bamboo could be disappeared by the end of the 21<sup>st</sup> century.
- g. A: False, The survival situation of pandas depends on how much favourable environment is being created for them, not only in mountain areas.
- h. A: True, Pandas can be saved if we do not waste time and start immediately.

6.Prepare the answers by yourself and show your tutor.

7.Prepare the answers by yourself and show your tutor.

#### Lesson 4

3.

- a. True
- b. True
- c. False
- d. True
- e. True

4. Ans:

(1+v); (2+vi), (3+iii), (4+viii); (5+ix); (6+x); (7+ii); (8+vii); (9+i); (10+iv).

5. Prepare the answers by yourself and show your tutor.

6. Prepare the answers by yourself and show your tutor.

#### Lesson 5

3.

- a. Kuakata is located in Latachipi union under Kalapara Police Station of Patuakhali district. It is 70 km from Patuakhali district headquarters and 320 km from Dhaka.

- b. The name Kuakata comes from ‘Kua’- a well dug on the sea shore by the early Rakhaine settlers in quest of collectiong drinking water, who landed on Kuakata coast after being expelled from Arakan by the Moughals.
- c. The most unique feature of the Kuakata beach is that it has the advantages of offering the full view of the rising and setting of the sun.
- d. The traditional events that take place in Kuakata are festivals of Rash Purnima and MaghiPurnima. Thousands of people come here to take holy bath on these days. The traditional fairs also attract them.
- e. Yes, I would like to visit Kuakata. The following is the list of three things that I would like to do while in Kuakata:
  - The full view of rising and setting sun
  - The bathing in the sea
  - The traditional events

4.

Adjective	Noun
Attractive	Attraction
Typical	Typicality
Migratory	Migration
Wide	Width
Long	Length

5.

- a. Expanse: A large, open area of water.
  - b. Unique: Being the only one of its kind
  - c. Virgin: Not yet used, exploited, or processed
  - d. Indigenous: Naturally existing in a place or country rather than arriving from another place.
  - e. Devotee: A strong believer in a particular religion.
  - f. Heritage: Features belonging to the culture of a particular society.
6. Prepare the answers by yourself and show your tutor.