

## Chapter 20: Whose Forests?

### Discuss

#### Question 1:

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What do you think is a forest?

#### Answer:

An area covered with different plants including trees, shrubs and bushes is called a forest. One can see various types of plants, birds, insects, and animals in a forest.

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#### Question 2:

If someone grew lots of trees close to each other, would this become a forest?

#### Answer:

No, growing many trees close to each other does not make a forest. A forest is a thick cover of plants that takes many years to form.

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### Find Out and Write

#### Question 1:

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Other than trees what all is there in a forest?

#### Answer:

Other than trees, the forest is home to various animals, insects, birds and microorganisms.

### Question 2:

Do all forests have similar types of trees? How many trees can you identify?

#### Answer:

The environmental factors of the region impact the type of trees that grow in the forests of those regions. Hence, one can find different kinds of trees in different forests. I can identify the following trees—

i) Mango, ii) Coconut, iii) *Gulmohar*, iv) Neem, v) *Sheesham*, vi) Banyan, vii) Teak, viii) Eucalyptus.

*[Students should mention their experience based on the above lines.]*

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### Question 3:

Suryamani says, “If the forests are not there, we too will not remain”. Why so?

#### Answer:

Humans depend on forests for various reasons because of the following reasons—

i) Plants give off oxygen and absorb carbon dioxide. We know oxygen is essential for the sustenance of life. Thus, forests act as a balancing agent of the environment and also plays the role of a natural air purifier.

ii) Forests are the sources of food, medicinal herbs, different raw materials like wood that humans use in different ways.

iii) Forests provide a source of livelihood for the people residing near them.

iv) Forests are the natural habitat of many animals, birds and insects. Without forests, they will not have a place to stay and will start to encroach on human settlements for their survival.

So based on the above points, we can say that forests play a significant role in the existence of human life.

## Think and Write

### Question 1:

(Page 184)

Do you know anyone who loves the forest?

#### Answer:

Yes, I and my father are fond of forests. We go to different forests and enjoy jungle safaris during our vacations.

*[Students should mention their experience based on the above lines.]*

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### Question 2:

The contractor did not allow Suryamani's people to go into the forest. Why?

#### Answer:

The contractor cut wood from the forest for commercial purposes, so he did not allow Suryamani to go into the forest.

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### Question 3:

Is there any place around your area which you feel should be open to everyone, but where people are not allowed to go?

#### Answer:

There is an old palace in my town. It is neither open for common people nor maintained well by the authorities. I feel it should be renovated by the authorities and should be open to the common people.

*[Students should mention their experience based on the above lines.]*

## Discuss

### Question 1:

(Page 184)

Who do you think the forest belongs to?

#### Answer:

Forests belong to everyone, including man, animals, birds, insects, because these are not anyone's personal property.

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### Question 2:

Bhudhiyamai said— “Forest is our ‘collective bank’—not yours or mine alone”. Are there other things which are our collective wealth? So, if someone uses more, everyone would suffer?

#### Answer:

All natural resources available are for everyone and must be used judiciously. Exploiting natural resources would affect everyone's lives, including our future generations. Some examples of collective wealth are—

- i) Coal and petroleum, ii) Seafoods like fish, crabs, and prawns, iii) Groundwater, iv) Minerals.
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## Think and Write

### Question 1:

Do you have a friend with whom you can share everything?

#### Answer:

Yes, Avantika is my best friend with whom I share everything.

*[Students should mention their experience based on the above lines.]*

### Question 2:

Some people have moved so far away from the forest that they cannot understand the lives of forest people. Some even call them '*jungli*'. Why is it not correct to say this?

#### Answer:

Using the word *jungli* seems disrespectful. The choices, habits, rituals, festivals, and lifestyles of people depend on the geographical location. Dwelling near forests does not make people *jungli*. Instead, they respect forests and take care of them. They work hard and honestly earn their living.

### Question 3:

What do you know about how *adivasis* live? Write and draw a picture.

#### Answer:

*Adivasis* are simple people who depend on forests for their food. They have simple style of wearing clothes. In some areas, one can find them wearing animal skins. They have different festivals, languages and cultures. They do not like the interference of outsiders in their living places or lives. They worship different elements of nature as they value the importance of natural resources.



**Question 4:**

Do you have an *adivasi* friend? What have you learnt about the forest from her?

**Answer:**

Yes, I have an adivasi friend in school, and her name is Jamuna. Since she has spent a long time in the forests, she knows many things about them. She can identify plants by looking at their leaves and understands the benefits of medicinal plants. I have learnt the use of natural herbs in daily life from her. For example, using neem in hot water keeps our skin clean, and *harshringar* is used to relieve joint pains.

*[Students should mention their experience based on the above lines.]*

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**Think**

**Question 1:**

(Page 187)

Do you know of anyone who works to save forests?

**Answer:**

Yes, there is a small group in our locality, and they work to maintain a small patch of forest near our city. They organise awareness camps, tree plantation drives and forest cleaning programmes.

*[Students should mention their experience based on the above lines.]*

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**Question 2:**

What is your dream? What will you do to make your dream come true?

**Answer:**

I want to become a pilot. I will study hard to make my dream come true.

### Question 3:

Collect reports about forests from newspapers. Did you find any news about cutting down of forests affects the weather? How?

### Answer:



**Tree Authority says yes to cutting 2,702 trees in Aarey**  
**BJP and NCP vote for Metro 3 car shed, Cong stages walkout; activists and Sena members left shocked over development**

Chaitanya Marudkar  
 @chaitanyamr  
 TWEETS @chaitanyamr

**Those who voted in favour of cutting trees**

- BJP-4 members
  - Abhishek Samant
  - Akshay Kulkarni
  - Harish Kulkarni
  - Akshay Purkoti
- NCP-1 member
  - Jagdish Kulkarni
- Expert members-1
  - Subhash Patil
  - Chandrashekhar Sutarbhai
  - Shridharam Sutarbhai
- Congress members walked out and didn't vote
  - Jagdish Kulkarni
  - Subhash Patil



**Centre diverts 120ha of biodiversity hotspot at Mollem for rail project**

**'Trees To Be Cut Under Supervision Of Forest Dept'**

Govind Maad @timesgroup.com

**Margao:** The Centre has sounded a devastating blow to the Mollem ecosystem as it approved the diversion of 140 hectares of forest for South Western Railway's double-tracking project.

What has raised the hackles of environmentalists and nature lovers is that around 120 hectares — almost 65% — lies within the Bhagwan Mahavir National Park, and this move is likely to drastically impact the biodiversity hotspot of Mollem in the ecologically fragile Western Ghats.

The in-principle approval, issued by the Union ministry of environment, forest and climate change (MoEFCC), paves the way for diversion of 120,95a of the biodiversity hotspot that lies within the Bhagwan Mahavir National Park and Mollem Sanctuary for the Castlerock to Collem stretch, while another 19ha and 15.6ha of forest land has been cleared for the Collem to Margao section.

In a series of reports, TOI has highlighted that biodiversity and wildlife experts believe that the three Centre-sponsored infrastructure projects — the Panaji-Belagavi NH expansion and the Tannar power transmission project, apart from the double-tracking — have the potential to exacerbate Goa's water woes turning it into a parched state while posing a mighty threat to the endemism and the flora and fauna of the region.

► '1,000 plants', P 3

## 'Global warming alters rainfall pattern'

Scientists say that a shift in a key weather system is stimulating cyclones in the Bay of Bengal

**JACOB KOSHY**  
 NEW DELHI

Global warming has altered a key weather system and that may be whetting cyclones in the Bay of Bengal, decreasing winter rain in north India and altering global rainfall patterns, a study by a team of Indian and U.S. researchers has found.

The Madden-Julian Oscillation (MJO), as it's called, is a moving band of rain clouds that travels around the globe spanning 12,000-20,000 km across the tropical oceans. In its journey, it interacts with surface waters of the Indo-Pacific ocean, the largest pool of warm water in the globe, and due to this — the authors say — the lifecycle of the MJO gets affected.

The MJO clouds on average are spending only 15 days, instead of 19, over the Indian Ocean.

Over the west Pacific, it increased by five days (from an



**After the gale:** In this photo dated November 19, 2019, men are clearing debris from their damaged house after cyclone Bulbul hit the area in Namkhana, West Bengal. • REUTERS

average 16 days to 23 days). "It is this change in the residence time of MJO clouds that has altered the weather patterns across the globe," according to the research paper that appears in the latest edition of the journal *Nature*.

When the MJO appears in the Indian Ocean during the

monsoon months of June-September, it can increase rains over India. This year, India was poised to receive below normal monsoon rainfall in April but ended up with excessive rain partly due to the MJO.

The study, led by Roxy Mathew Koll, a researcher at the Indian Institute of Tropi-

cal Meteorology, Pune doesn't delve into the impact of the MJO during the monsoon months. However, Mr. Koll told *The Hindu*, the change in the MJO could drift warmer surface water towards the Bay of Bengal and increase cyclones. "The MJOs haven't been as extensively studied as say the El Nino. This study shows that we need better observation of the Indian Ocean and improve forecasts that can warn us about a cyclone."

#### Ocean temperatures

To compute the reduction in the number of MJO days over the Indian Ocean, the researchers — they included scientists from the U.S. National Oceanic and Atmospheric Administration (NOAA), the University of Washington and the University of Tokyo — compared changes from 1981-2018 to compute the

changes. Global warming has been expanding the size of the warm pool on average by 2,300 sq. km. annually from 1900-2018 and at an accelerated average rate of 4,000 sq. km. per year during 1981-2018.

The changes in MJO behaviour have increased the rainfall over northern Australia, west Pacific, Amazon basin, southwest Africa and southeast Asia (Indonesia, Philippines and Papua New Guinea).

At the same time these changes have brought a decline in rainfall over central Pacific, along the west and east coast of U.S. (e.g., California), north India, east Africa and the Yangtze basin in China. The frequent California fires, droughts in Africa and East Asian floods and cyclones in the Bay of Bengal may be linked to these changes in global weather, the study noted.

I have come across news articles that state that how global warming has led to climate change. Deforestation i.e., cutting down forests is one of the major causes of global warming. Extensive deforestation causes an increase in carbon dioxide concentration in the atmosphere, facilitating global warming, thereby affecting the weather patterns.

- i) The rainfall pattern is becoming erratic.
- ii) Frequent occurrence of cyclones.
- iii) Extreme hot summers.
- iv) Occurrence of droughts.

*[Students should mention their experience based on the above lines.]*

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#### Question 4:

In 'Torang' Suryamani does a lot to keep the Kuduk music, dance and traditions alive. Would you like to do something like this for your community? What would you like to keep alive?

#### Answer:

Yes, I would like to keep the following things alive in my culture—

- i) Rajasthani folk music and dance.
- ii) The traditional Rajasthani attire of *ghagra*, *choli* and *odhni*.

*[Students should mention their experience based on the above lines.]*

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### Read and Tell

Sikhya, a Class X girl in Odisha, wrote a letter to the Chief Minister. Read a part of the letter.

A forest is everything for us adivasis. We can't live away from the forests even for a day. Government has started many projects in the name of development – dams and factories are being built. Forests, which are ours are being taken away from us. Because of these projects, we need to think where the forest people will go and what will happen to their livelihood? Where will the lakhs of animals living in the forests go? If there are no forests, and we dig out our lands for minerals like aluminium, what will be left? Only polluted air, water, and miles and miles of barren land...

**Question 1:**

(Page 187)

Is there any factory or some construction work going on in and around your area? What type of work?

**Answer:**

An industrial complex is being built on the outskirts of my city. A lot of construction work is going on for this reason.

*[Students should mention their experience based on the above lines.]*

**Question 2:**

Due to the factory is there any effect on the trees and the land? Have the people in that area raised this issue?

**Answer:**

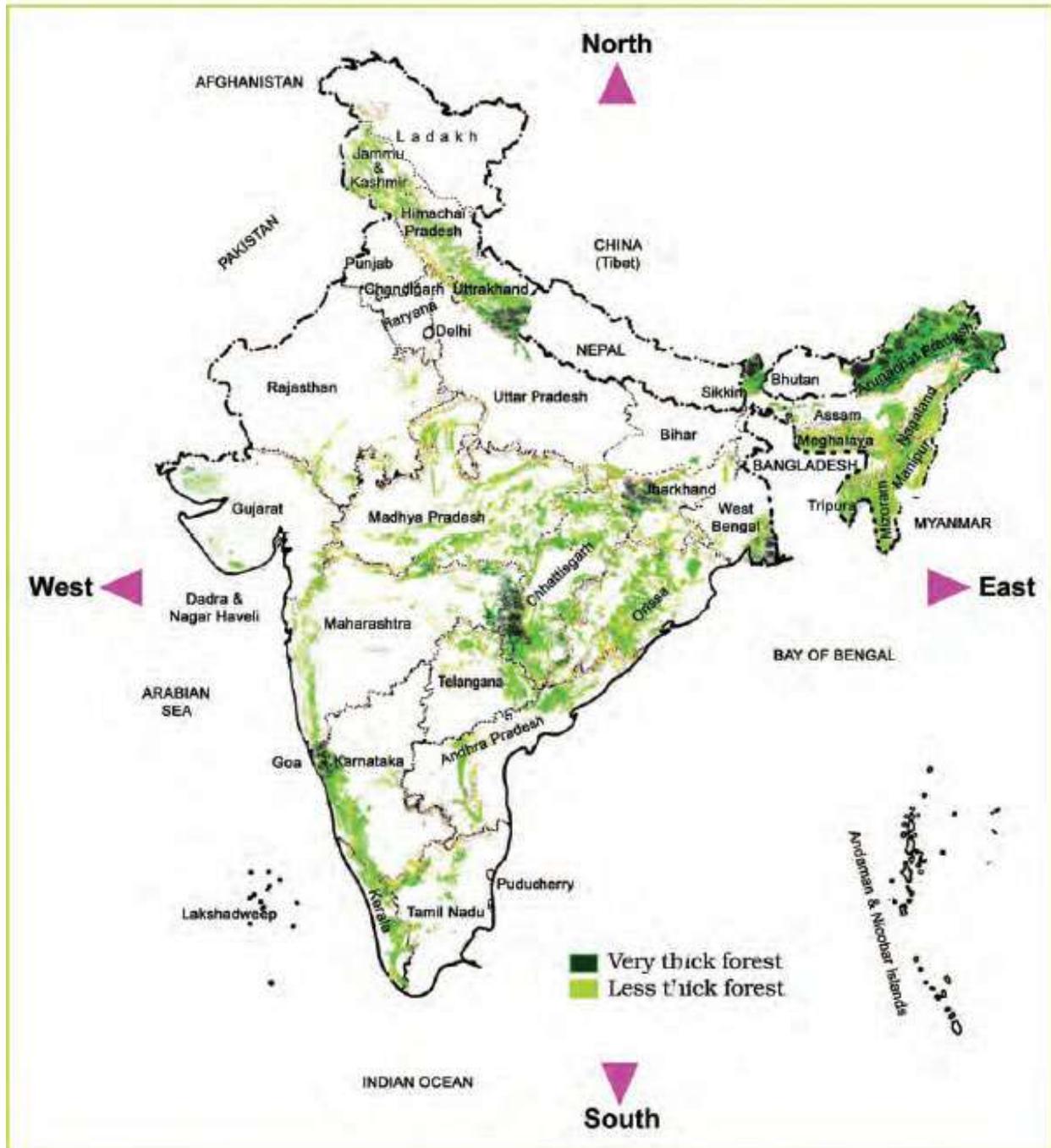
Due to the construction of the industrial complex, the following difficulties have arisen—

- i) A patch of land with many trees has been cleared. A waterbody, too, has been filled up.
- ii) The air quality has degraded.
- iii) One gets the pungent smell of ammonia in the early mornings.

Yes, the people residing there are not aware of the harmful effects of such construction work, and so they have not raised any issue.

*[Students should mention their experience based on the above lines.]*

## Look at the Map and Write



**Question 1:**

(Page 188)

What all is shown in the map?

**Answer:**

The map shows the distribution of forest cover in our country.

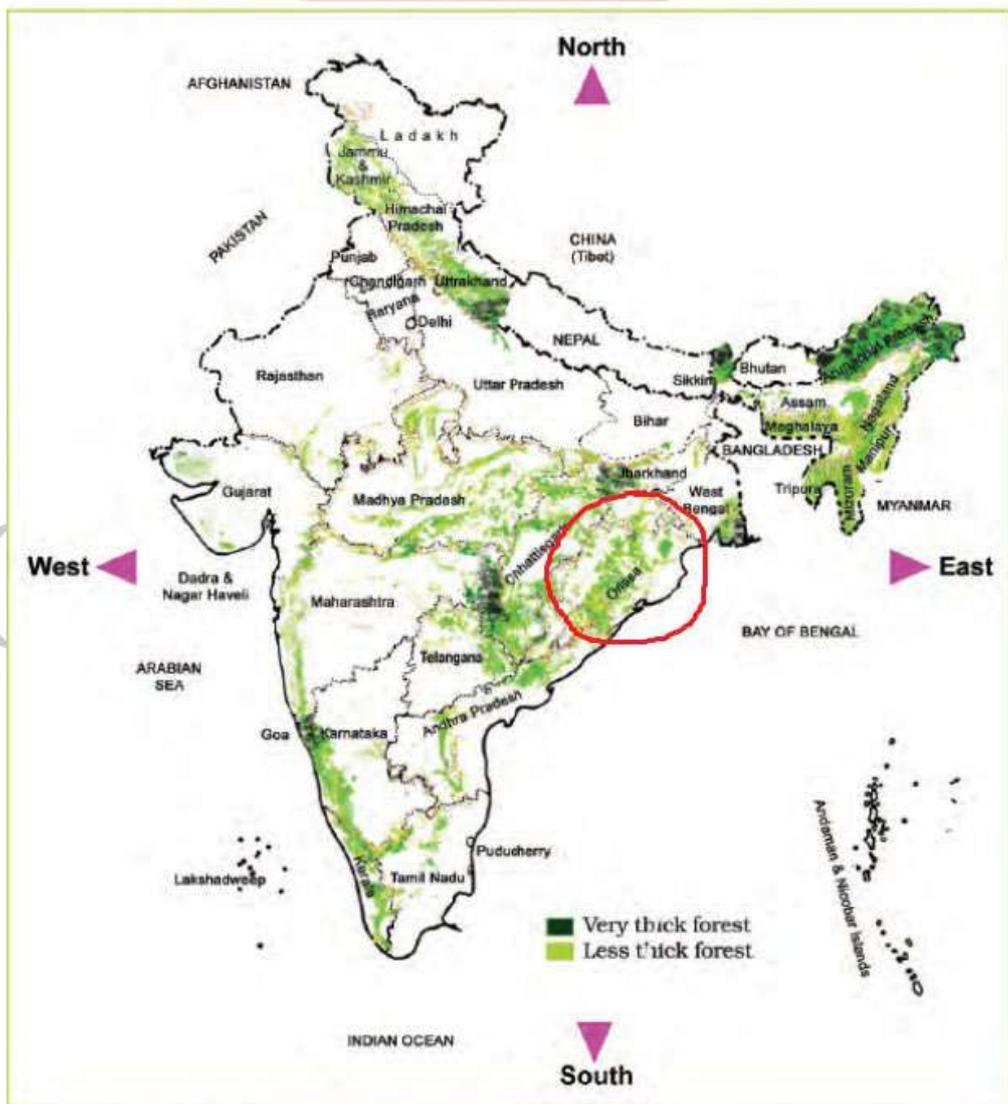
**Question 2:**

(Page 189)

You have read Sikhya's letter. Look for Orissa in the map.

**Answer:**

Orissa is in the eastern coastal part of India. It is surrounded by Chhattisgarh, West Bengal, Andhra Pradesh and Jharkhand.



### Question 3:

Is there a sea close to Orissa? How did you find out?

#### Answer:

The Bay of Bengal Sea lies on the eastern side of Orissa. It is marked on the map.

### Question 4:

Which are the states which have sea on one side?

#### Answer:

The following states have the sea on one side—

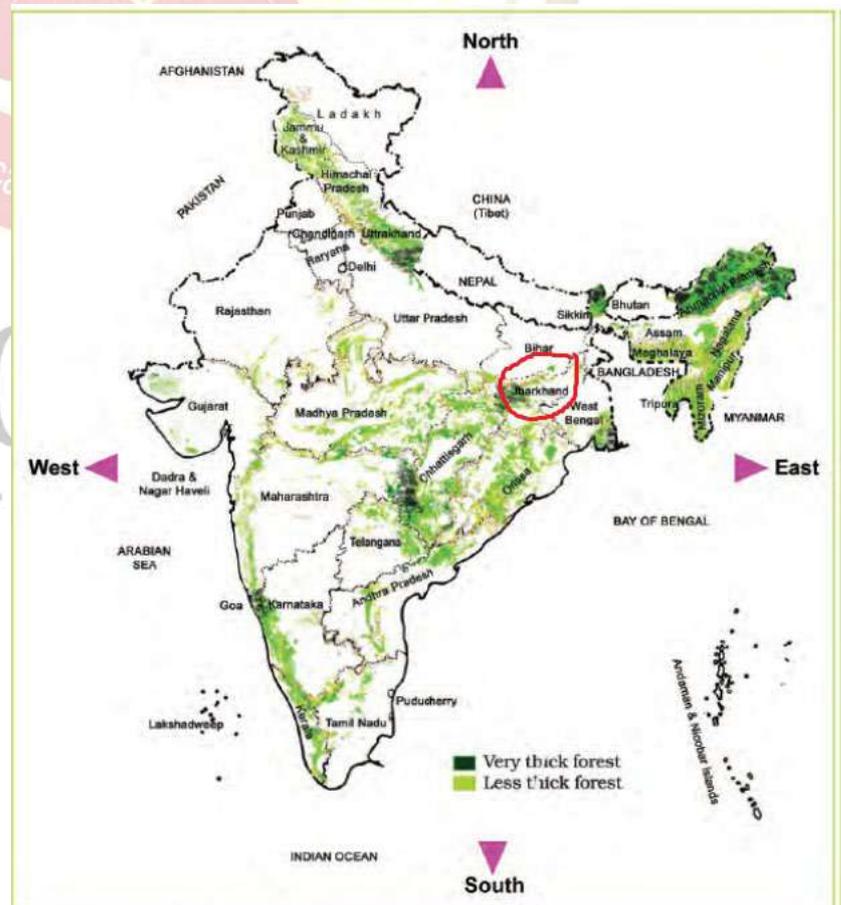
i) Karnataka, ii) Goa, iii) Maharashtra, iv) Gujarat, v) Kerala, vi) Tamil Nadu, vii) Andhra Pradesh, viii) Orissa, ix) West Bengal.

### Question 5:

Where is Suryamani's state Jharkhand on the map?

#### Answer:

Jharkhand is situated towards the south of Bihar and north of Orissa.



### Question 6:

Where are forests on the map? How will you find these?

### Answer:

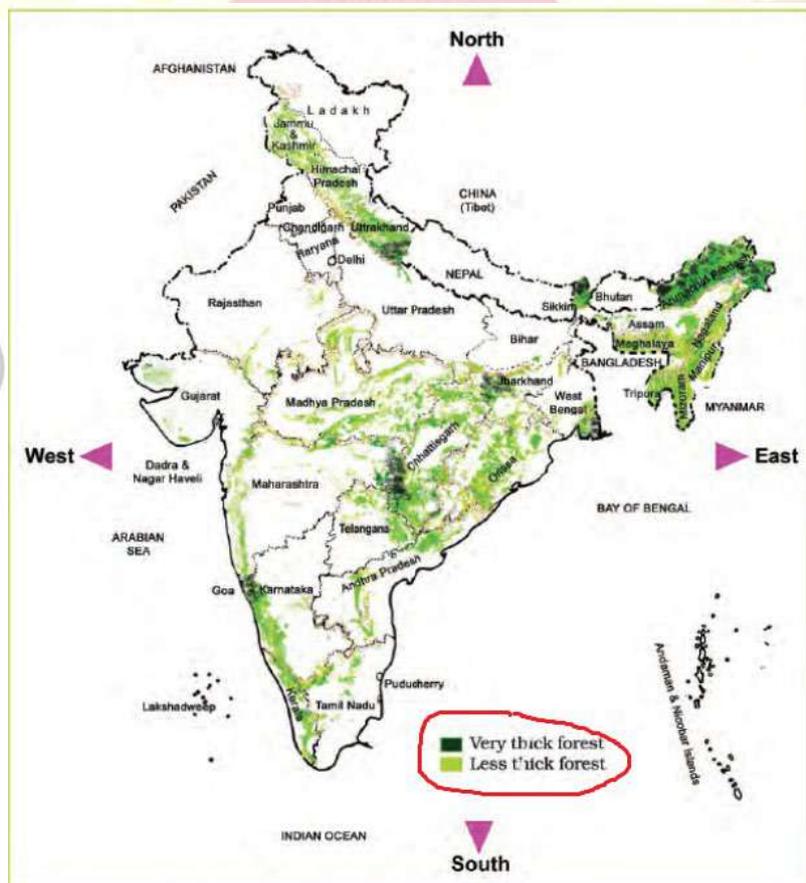
The forests are represented by a green colour on the map and are visible in some states of India. A key for the same is mentioned in the bottom right position of the map.

### Question 7:

How can you find out which states have very thick forests and which have less thick forests?

### Answer:

We can find this by looking at the key. The dark green colour indicates the thick forest cover, and the light green colour shows a thin forest cover.



**Question 8:**

For someone in Madhya Pradesh, in which direction would the country's thickest forests be? Name those states.

**Answer:**

For someone in Madhya Pradesh, the country's thickest forest would be towards the north, east and north-east. The states with the thickest forests are as follows—

Chhattisgarh, Uttarakhand, Arunachal Pradesh, and Jharkhand.

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**Find Out**

**Question 1:**

(Page 190)

Which are the states around Mizoram?

**Answer:**

The states around Mizoram are—Manipur, Nagaland, Tripura, Meghalaya.

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**Question 2:**

Chamui said they measure land using tin. Which are the other ways of measuring land?

**Answer:**

Other ways of measuring land are—i) square metres, ii) *Bigha*, iii) Acre, iv) *Katha*, v) Yard, vi) Hectare

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**Question 3:**

Returning from school, children drank water in a bamboo cup. Who do you think would have made this cup and kept it in the forest? Why?

**Answer:**

The *adivasis* must have made those cups. They must have been selling those cups to earn money. Also, they must have kept it in the middle of the roadways to be used by people passing by for drinking water.

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**Question 4:**

Have you ever seen anything which people are free to use, with no one there looking after it?

**Answer:**

Yes, there are many things in public places that people are free to use like water dispensers, public toilets etc.

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**Question 5:**

(Page 191)

Find out more about ‘cheraw’ dance. Do it in your class. But be careful and don’t hurt yourself.

**Answer:**

‘Cheraw’ is a famous traditional dance of Mizoram. The dancers use bamboo staves to set a rhythm for dancing. Four to six people hold the long bamboos across one another on the ground, and the female dancers weave in between the bamboos on the rhythm. Their dance movements reflect the swaying of trees and the flight of birds. They wear colourful costumes, which adds to the beauty of the dance. Cheraw is gradually gaining fame globally. In 2010, this dance form was featured in the Guinness Book of World Records.



## What We Have Learnt

### Question 1:

(Page 191)

What is similar and what is different between Jhoom farming and Bhaskarbhai's way of farming?

### Answer:

#### Similarities:

Both types of farming are based on the use of natural manure to maintain soil fertility and get a good crop yield.

#### Differences:

Bhaskarbhai's way of farming	Jhoom Farming
Bhaskarbhai used dried leaves, peels of vegetables and fruits, and leftover food to prepare manure by composting.	Here the manure is prepared by burning the weeds and other plants growing on the patch of land.
He used earthworms to fasten the process of composting.	No earthworms were used.
He grew a variety of crops.	Rice is the major crop grown.
The same patch of land is used for cultivation.	After a cropping season, the patch of land is left uncultivated to replenish soil nutrients.

### Question 2:

Explain in your own words why forests are important for the people living in forests.

**Answer:**

The forests are important for the people living in the forest due to the following reasons—

- i) People depend on the forest for their livelihood.
- ii) Forests are the source of food, medicines, and raw materials.
- iii) The rearing of livestock becomes easy in the forests.
- iv) The culture, festivals, and sentiments of *adivasis* revolve around the forests.

Hence it can be considered that forests are an integral part of the people's lives living in forests.

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**Question 3:**

Did you find something interesting in Jhoom farming? What is it?

**Answer:**

The following reasons distinguish Jhoom farming from other types of farming—

- i) A new patch of land is used in every cropping season.
  - ii) This type of farming allows the soil to replenish its fertility.
  - iii) The weeds and unwanted plants are not removed; rather, they are used as manure.
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