

## Climate change in Russia's Arctic tundra

### Level 2 • Intermediate

#### 1 Key words

Fill the gaps in the sentences using these key words from the text.

herder	swamp	impenetrable	landslide	sceptical
catastrophic	indigenous	unmistakeable	tundra	permafrost

- \_\_\_\_\_ is a large flat area of land without trees in very cold northern parts of the world.
- \_\_\_\_\_ is ground that stays permanently frozen.
- A \_\_\_\_\_ is a heavy fall of earth and rocks down the side of a mountain or steep slope.
- A \_\_\_\_\_ is someone whose job is to look after a group of animals.
- If a place is described as \_\_\_\_\_, it is impossible to get into or get through it.
- If something is described as \_\_\_\_\_, it is very easy to recognize.
- If you are \_\_\_\_\_ about something that other people think is true, you have doubts about it.
- A \_\_\_\_\_ is an area of land covered by water where trees and plants grow.
- The \_\_\_\_\_ people of a particular place have lived there for a very long time before other people came to live there.
- A \_\_\_\_\_ situation or event causes a lot of damage or makes a lot of people suffer.

#### 2 Find the information

Look in the text and find this information as quickly as possible.

- Where is the Yamal peninsula?
- When do reindeer give birth to their young?
- What is the normal winter temperature on the Yamal peninsula?
- Which gases will be released if the permafrost melts?
- What length of Russian railway track is built on permafrost?
- What is the difference between the thickness of the ice in 2008 and the thickness this year?

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#### Climate change in Russia's Arctic tundra: 'Our reindeer go hungry. There isn't enough pasture'

**Luke Harding**  
20 October, 2009

- 1 For 1,000 years the indigenous Nenets people have migrated along the 450-mile-long Yamal peninsula in northern Russia. In summer they wander northwards, taking their reindeer with them. In winter they return southwards.
- 2 But this remote region of north-west Siberia is now being affected by global warming. Traditionally the Nenets travel across the frozen River Ob in November and set up their camps in the southern forests around Nadym. These days, though, this annual winter migration is delayed. Last year the Nenets, together with many thousands of reindeer, had to wait until late December when the ice was finally thick enough to cross.
- 3 "Our reindeer were hungry. There wasn't enough food," Jakov Japtik, a Nenets reindeer herder, said. "The snow is melting sooner, quicker and faster than before. In spring it's difficult for the reindeer to pull the sledges. They get tired," Japtik said.
- 4 Herders say that the peninsula's weather is increasingly unpredictable – with unseasonal snowstorms when the reindeer give birth in May, and milder longer autumns. In winter, temperatures used to go down to -50°C. Now they are normally around -30°C, according to Japtik. "Obviously we prefer -30°C. But the changes aren't good for the reindeer and in the end what is good for the reindeer is good for us," he said, setting off on his sledge to round up his reindeer herd.
- 5 Here, in one of the most remote parts of the planet, there are clear signs the environment is under pressure. Last year the Nenets arrived at a regular summer camping spot and discovered that half of their lake had disappeared. The water had drained away after a landslide. While landslides can occur naturally, scientists say there is unmistakable evidence that Yamal's ancient permafrost is melting. The Nenets report other curious changes – there are fewer mosquitoes and a strange increase in gadflies.
- 6 "It's an indication of the global warming process, like the opening of the Arctic waters for shipping this summer," says Vladimir Tchouprov, Greenpeace Russia's energy unit head. The melting of Russia's permafrost could have catastrophic results for the world, Tchouprov says, by releasing billions of tonnes of carbon dioxide and methane that were previously trapped in frozen soil.
- 7 Russia – the world's biggest country by geographical area – is already warming one-and-a-half-times faster than other parts of the world. If global temperatures go up by 4°C, as many scientists fear, the impact on Russia would be disastrous. Much of Russia's northern region would become impenetrable swamp. Houses in several Arctic towns are already beginning to sink into the ground.
- 8 Many Russians, however, doubt that climate change exists. Others say that it might bring benefits to one of the world's coldest countries, with oil and gas exploration in the Arctic, and a longer growing season. Russia's scientific community seems sceptical about global warming and the government doesn't appear to regard the issue as a major domestic problem; public awareness of climate change in Russia is lower than in any other European country.
- 9 Western politicians, however, say that it is in Russia's interests to take action on climate change and to seek ambitious targets at December's Copenhagen summit. "There is 5,000 miles of railway track built on permafrost. It could be destroyed as a result of melting," Ed Miliband, the UK secretary of state for climate change, said during a recent visit to Moscow.
- 10 However, even Russians working in the Arctic do not believe that their country faces a serious climate-change problem. "It's rubbish. It's invented. People who spend too long sitting at home have made up climate change," Alexander Chikmaryov, who runs a remote weather station on the Yamal peninsula, said. A small community of Nenets hunters lives nearby; otherwise there's

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nobody for a hundred kilometres. The weather here is, not surprisingly, bitterly cold; the sea freezes for nine months of the year.

- 11 In fact, Chikmaryov's own data suggests that global warming is a real problem here too. In 2008 the ice was 164cm thick; this year it is 117cm. Winter temperatures have gone up too – from lows of -50°C in 1914, when the station was founded, to -40°C today. Every year large chunks of the coast fall into the sea. And there are other unnatural signs. On 15th August a large polar bear was seen looking for food in the station's rubbish bin. "It was 7pm. The bear was

enormous. We set off a flare. It ran off," said one of the station's workers. Polar bear sightings are becoming increasingly common – with the bears coming south from their far-northern habitat in search of food.

- 12 Back on the tundra Japitik was rounding up his reindeer. "I've lived all of my life in the tundra," he said. "The reindeer for us are everything – food, transport and accommodation. The only thing I hope is that we will be able to carry on with this life."

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### 3 Comprehension check

Are these statements true (T) or false (F) according to the text?

1. Winter temperatures in the Yamal peninsula are lower than they used to be.
2. The water in the lake at the Nenets camping spot disappeared as a result of a landslide.
3. If Russia's permafrost melted, the effects would be very serious for the whole world.
4. Russia is warming up more quickly than other parts of the world.
5. The Russian government sees global warming as a serious domestic problem.
6. Most Russians who work in the Arctic believe there is a serious climate-change problem in Russia.

### 4 Find the word

Find the following words and phrases in the text.

1. a noun meaning *a long piece of land that is mostly surrounded by water but is joined at one end to a larger area of land* (para 1)
2. an adjective meaning *far away from other cities, towns or people* (para 2)
3. a noun meaning *a vehicle that you sit on to travel over snow* (para 3)
4. a two-word phrasal verb meaning *to bring animals together in one place for a particular purpose* (para 4)
5. a two-word phrasal verb referring to a liquid and meaning *to flow away* (para 5)
6. a two-word phrasal verb meaning *to invent* (para 10)
7. a two-word expression meaning *extremely cold* (para 10)
8. a noun meaning *a bright light or flame that burns brightly and is used as a signal in the dark* (para 11)

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#### 5 Verb + noun collocations

Match the verbs in the left-hand column with the nouns and noun phrases in the right-hand column.

- |            |             |
|------------|-------------|
| 1. set up  | a. action   |
| 2. pull    | b. a flare  |
| 3. take    | c. problems |
| 4. face    | d. a camp   |
| 5. set off | e. benefits |
| 6. bring   | f. a sledge |

#### 6 Word building

Complete the table using adjectives from the text.

	noun	adjective
1.	catastrophe	
2.	disaster	
3.	ambition	
4.	geography	
5.	season	(un)
6.	prediction	(un)

#### 7 Discussion

Some people say that global warming does not exist. Do you agree with this statement? Why? Why not?