Life with Water in Kumamoto

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A: Hello. My name is Kuwata Kento.
B: I'm Kobayashi Miho.
C: I'm Shimanaka Kaito.
B: We know it's quite sudden to ask, but what comes to your mind when you hear Kumamoto Prefecture? Kumamon. Horse meat sashimi. Kumamoto castle. There are more various attractions in Kumamoto. Today, we'll talk about one of the charms of Kumamoto, water. I hope you will be interested in the water of Kumamoto by the end of this presentation. Now, let's begin.
C: It' s good. I like this water.
B: Is it bottled water?
C: No. It' s tap water.
B: Tap water! It's also good. But it tastes different from the tap water I drank when I went on a trip.
A: That is chlorine. Chlorine is often used for disinfection and sterilization in urban areas.
A: The average of residual chlorine concentration in Japan is 0.01. But the concentration in Kumamoto is 0.0002. So, it is 50 times below the average.
B: That means in Kumamoto we don't use much chlorine to clean water, right?
C: I see. But why don' t we have to add chlorine to the water in Kumamoto?
A: Because the water is beautiful by nature. Kumamoto City tap water is 100 percent ground water.
B: I see. Then where does this water come from?
A: Do you know Mt. Aso?
C: I know it's a volcano, right?
A: Well, there is a layer made of volcanic ash by eruptions of Mt. Aso. And there are many fields on the layer, and rainwater seeps in from these fields.
B: Many fields are the entrance for the water. That's interesting.
C: Interesting. How can that water be clean?
A: The water goes across the layer for five years. So, only clear water can go through because rainwater is filtered by the layer.
B: I see, but where does the water go?
A: The water is saved in the base rock layer, because this layer does not allow water to pass through, so it accumulates as groundwater.
B: Wow, that's amazing! It's a natural system.
C: Even if that is a natural system, those fields were made by someone else, weren't they?
A: Yes, the famous Kato Kiyomasa made them. The fields became able to soak rainwater

more easily.
B: It's a technical system that makes the best use of nature.
C: Come to think of it, we have the Kuma River in Kumamoto.
B: I know the Kuma River is one of the three major rapids in Japan.
A: Yeah, it's true. The Kuma River is 115 km in length, the longest river in Kumamoto. And the river is the third longest in Kyushu.
B: Wow, that's a long river.
A: But the Kuma River has been called "Rampaging River" since long ago. Flood disasters have been recorded more than 100 times in the past 400 years.
B: We suffered a heavy rain disaster in 2020.
C: In short, it is a river that is difficult to control.
A: That's right. One of the reasons is rainfall in this region is 1.6 times the national average.
C: The rain front is stagnant, and typhoons come through every year.
C: Also, at the mouth of the river is the Yatsushiro Plain, which is at sea level, so the flood damage is easily spread.
B: Now, is the water controlled?
A: Yes. Various measures have been taken for a long time.
C: I think Kato Kiyomasa did something.
A: In particular, the flow velocity of water was fast in flood areas.
So, the water flow was weakened by wood piles in the Middle Ages.
B: Was that not a good enough measure?
C: Oh, I get it. It was made of wood, so it wasn't long-lasting. People had to replace it regularly.
A: That's right. That's why Kato Kiyomasa built a stone weir called "Youhai Zeki".
B: A weir? What is that?
C: It's a structure that crosses a river. And it weakens the force of the water flow. The water is stored upstream and can be used for tap water and agriculture. We can also use the central part of the weir for water transportation.
B: Awesome. Kiyomasa did flood control work in anticipation of use.
B: No wonder why he is called the master of civil engineering.
C: These technologies of the past allow us to use water right now.
A: In Kumamoto, we use water in a variety of ways, and I believe one of the charms of Kumamoto lies in its water.
B: Water is necessary for river life and agriculture, and I again realize how important it is for our lives. By the way, is there any research on water in our college?
C: I know some. For example, we have a hydroponics project with local rush farmers. Rush is a local specialty that is used to make tatami mats. The local farmers and our school are working together to use limited water without wasting it. It's good for both water conservation and agriculture.
C: In addition, a few years ago, the MLIT (the Ministry of Land, Infrastructure, Transport and Tourism) and Kumamoto Kosen collaborated to build a weir on the Kuma River. I'm sure there are other efforts by Kosen and local communities.
B: I believe there are things we can do every day for the water in Kumamoto.
C: It's important not to pollute the environment. I've seen people pouring their juice or

coffee into the canal. Also, I often see cigarette butts on the road. That's really bad for keeping water clean.

B: I see. It's sad that we pollute the clean water we have by ourselves. While doing what we can do to keep the clean water, we would like to participate in school efforts for one of the charms of Kumamoto, water.

A: Water is essential for all living creatures. So, let's be thankful for Kumamoto's abundant water resources and have a better life!

B: I hope you are more interested in the water of Kumamoto.

C: Due to the current COVID-19 situation, you might have to refrain from traveling to other prefectures. If you become free to travel, please come to Kumamoto!

A, B, & C: Thank you for listening.